

NICOLIN DECKER

Proposal and Comment Information

Title: Request for Information and Comment on Reserve Bank Payment Account Prototype, OP-1877

Comment ID: FR-2025-0083-01-C16

Submitter Information

Name: Nicolin Decker

Submitted Date: 01/09/2026

Comment on Request for Information and Comment

Reserve Bank Payment Account Prototype

Docket No. OP-1877

Submitted by:
Nicolin Decker
Independent Constitutional Scholar and Systems Architect

I. Purpose of Comment

This comment is submitted in response to the Board of Governors' Request for Information regarding the proposed Reserve Bank Payment Account prototype. It draws upon the constitutional framework developed in *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity*, submitted herewith for reference, and is intended to assist the Board in evaluating the proposal's long-horizon constitutional and institutional implications alongside its operational design.

II. Core Observation

The Payment Account prototype reflects a sound and constitutionally prudent intuition: that settlement access may be provided to payment-focused institutions only if that access is narrowly scoped, operationally bounded, and institutionally accountable. This approach aligns with a foundational constitutional principle—often implicit but rarely articulated—that monetary and settlement architectures perform sovereign-adjacent functions and therefore must remain publicly legible, corrigible, and bounded by law.

The prototype's design features—separation from Master Accounts, limits on overnight balances, prohibition on interest, exclusion from the discount window, and prefunding requirements—collectively reinforce the distinction between settlement facilitation and monetary accommodation. This distinction is constitutionally significant and should be preserved.

III. Constitutional Risk Addressed

From a constitutional perspective, the central risk in modern payment innovation is not illegality, but structural dilution: the gradual migration of settlement authority into architectures that operate beyond democratic authorization or institutional correction. In the attached *Doctrine*, this risk is defined as Architectural Sovereignty Contagion (ASC)—a long-horizon condition in which authority migrates functionally without migrating in law.

The Payment Account prototype, properly constrained, functions as a preventive architecture against ASC, not a contributor to it. By ensuring that settlement access does not silently evolve into reserve substitution, shadow monetary authority, or discretionary accommodation, the Board preserves both financial stability and constitutional legitimacy.

IV. Responses to Selected RFI Considerations

Design Support for Payment Activities:

Yes. The prototype appropriately supports payment clearing and settlement while avoiding expansion into credit creation or balance-sheet intermediation.

Risks to the Payment System:

The principal risk arises only if Payment Accounts were to lose their bounded character. The current proposal mitigates this risk effectively through balance limits, service restrictions, and prohibition on intraday or overnight credit.

Overnight Balance Limits and No-Interest Feature:

These features are constitutionally sound. They discourage reserve-like accumulation and preserve the account's function as a closure mechanism, not a value-storage instrument.

Additional Safeguards:

Ongoing transparency, reporting, and review are essential to ensure that provisional access does not harden into unexamined precedent. Accountability over time is as important as risk mitigation at entry.

V. Concluding Observation

A constitutional monetary system must retain the capacity to close obligations lawfully under stress, while remaining continuously accountable to democratic institutions. Payment Accounts, if carefully governed, can advance innovation without surrendering sovereignty. The question is not whether such accounts are efficient, but whether they remain institutionally visible, bounded, and corrigible across time.

The Payment Account prototype moves in the correct direction. The attached materials are submitted to assist the Board in articulating and preserving the constitutional logic that makes that direction sustainable.

Respectfully submitted,

Nicolin Decker
January 9, 2026

The Constitutional Doctrine of Monetary Closure

Elasticity, Institutional Memory, and National Continuity

Author: Nicolin Decker

Affiliation: Independent Study — Systems Architect, Policy and Economic Strategist

Date of Completion: January 9, 2026

Doctrinal Status

This work is submitted as a *formal constitutional doctrine*, advancing a unified theory of monetary authority, democratic accountability, and national continuity under stress. It is not a policy proposal, white paper, or technical standard, but a constitutional framework intended to inform sovereign decision-making, judicial reasoning, and legislative architecture across generational horizons.

This Doctrine is presented as a companion work to *The Doctrine of Anchored Decentralization: A Law for the Stateless Economy*, together articulating a coherent constitutional architecture for modern monetary, fiscal, and decentralized systems governance.

Peer Review Requested

(Non-Endorsement; Scholarly and Institutional Review Only)

United States Government & Sovereign Institutional Review (Requested)

White House — National Security Council (NSC)

Review requested regarding national security implications, constitutional resilience, and sovereign continuity under conditions of monetary stress, systemic disruption, and institutional transition.

Federal Reserve System — Board of Governors

Review requested concerning sovereign monetary authority, reserve architecture, institutional memory, and lawful modernization pathways consistent with constitutional design and statutory mandate.

United States Department of the Treasury

Review requested for constitutional compatibility of emerging monetary architectures with federal fiscal authority, public debt management, payment settlement governance, and continuity of sovereign obligation.

United States Congress

Committee-level technical review requested for statutory coherence, Article I anchoring of monetary authority, separation-of-powers integrity, and legislative deployment readiness across crisis and non-crisis conditions.

Supreme Court of the United States

Submitted for doctrinal awareness and constitutional theory consideration only. No adjudicative posture, litigation intent, or request for judicial action is implied.

United States Department of State

Review requested regarding implications for international monetary legitimacy, democratic institutional resilience, foreign policy coherence, and the alignment of domestic monetary architecture with long-standing United States democracy-promotion principles and sovereign governance norms.

Academic & Independent Institutional Review Bodies (Requested)

- **Harvard Law School**
Constitutional structure, separation of powers, monetary authority, and administrative law review.
- **Massachusetts Institute of Technology**
Distributed systems, cryptographic architecture, and technical-legal alignment review.
- **Yale School of Management**
Macroeconomics, global market infrastructure, and institutional governance review.
- **Brookings Institution**
Governance studies, financial policy modernization, and democratic accountability review.
- **RAND Corporation**
National security, emerging technology risk, and systemic resilience analysis.
- **Hoover Institution**
Economic policy, constitutional governance, and legal-technology alignment review.
- **Carnegie Endowment for International Peace**
Global governance, cross-border digital systems, and international coordination review.
- **U.S. Naval War College**
Strategic implications of distributed technologies for sovereignty, verification, and national defense.
- **Commodity Futures Trading Commission & Securities and Exchange Commission — Alumni Advisory Review (Informal)**
Former senior officials providing interpretive perspectives on statutory alignment, regulatory boundaries, and institutional precedent.

Non-Endorsement and Independence Notice

No endorsement, sponsorship, approval, or institutional affiliation is claimed or implied by the inclusion of any governmental body, academic institution, military organization, or policy entity referenced in this Doctrine.

All institutions are identified *solely* to indicate the intended scope of expert review, analytical rigor, and constitutional alignment sought by the author. This work constitutes an *independent scholarly and doctrinal analysis* and does *not* represent the official views, positions, or policies of the United States Government, the Federal Reserve System, the Department of the Treasury, Congress, the judiciary, or any other entity named herein.

Abstract

This paper advances The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity as a formal constitutional doctrine rather than a work of descriptive fiscal history. It articulates a unifying legal principle: *a constitutional monetary system must preserve the capacity to close obligations lawfully under stress, while remaining continuously accountable to democratic authority*. Where closure fails, legitimacy erodes; where accountability fails, sovereignty thins.

The Doctrine develops three interlocking constitutional requirements. *Elasticity* is necessary to prevent scarcity from converting economic contraction into coercive enforcement. *Institutional memory* is required to ensure that extraordinary measures remain intelligible, reviewable, and corrigible across generations rather than hardening into unexamined precedent. *National continuity* depends on the lawful integration of both—so that obligations incurred in crisis can be created deliberately, managed transparently, and terminated conclusively without fracturing consent.

The paper introduces *Architectural Sovereignty Contagion (ASC)* as a long-horizon constitutional risk: the gradual migration of sovereign-adjacent monetary and settlement authority into systems that operate beyond electoral consent, legislative oversight, or institutional correction. ASC is not framed as illegality, but as structural dilution—authority exercised in practice without accountability in law. Drawing on Founding-era failures under the Articles of Confederation, subsequent constitutional design, and modern crisis responses, the Doctrine demonstrates that rigidity without accommodation and accommodation without accountability are symmetric constitutional failures.

This Doctrine is a companion paper to *The Doctrine of Anchored Decentralization: A Law for the Stateless Economy*. Together, the two works establish a coherent constitutional framework for modern governance: decentralized systems may operate only where authority remains anchored, visible, and corrigible within public institutions. Anchored Decentralization supplies the structural rule of law for distributed systems; Monetary Closure supplies the constitutional condition that allows those systems to endure crisis without surrendering democratic legitimacy.

The central claim is precise and normative. National security is derivative of constitutional security. A republic survives not by eliminating stress, scarcity, or discretion, but by governing them through accountable institutions capable of lawful adaptation. Monetary authority that cannot accommodate crisis fractures society; monetary authority that cannot answer to the public dissolves sovereignty. The Constitution resolves this tension through accountable elasticity—an architecture of restraint, memory, and closure that enables the Republic to endure across crises without losing itself.

Declaration of Intent

This work is offered as a constitutional doctrine, not as an instrument of advocacy, partisanship, or policy prescription. It is written from the premise that the American constitutional order is neither static nor self-executing, but sustained through the continued willingness of its stewards to confront history honestly, to interpret precedent faithfully, and to assume responsibility at moments when institutional inertia would otherwise prevail.

Although non-partisan in purpose and method, this Doctrine is intentionally normative in effect. It is drafted to clarify historical precedent in a manner that creates what constitutional theory has long recognized as an *interruptible moral burden*—a moment in which lawful authority cannot proceed on autopilot without conscious reaffirmation of responsibility. *Such moments are rare by design.* They arise when the accumulation of technical decisions, institutional habits, or structural drift threatens to outpace the ethical and constitutional frameworks that originally justified them.

This Doctrine is therefore addressed not to ideology, but to office. It speaks equally to the *United States Congress* and to *state legislatures*, recognizing that constitutional fidelity is a shared obligation across the federal structure. Article I authority, whether exercised at the national or state level, carries with it not only power, but duty: **the duty to ensure that systems governing obligation, settlement, and enforcement remain accountable to the people, corrigible through law, and intelligible across generations.**

The intentionality of this work lies precisely here. It is written to *pause* momentum—not to obstruct governance, but to restore deliberation where continuity has begun to substitute for consent. It asks legislators to re-examine whether inherited architectures still reflect constitutional purpose, whether delegated authorities remain meaningfully answerable, and whether institutional memory is being preserved or quietly displaced by protocol, automation, or abstraction.

In this sense, the Doctrine does not accuse. *It interrupts.* It does not demand outcomes. It demands reckoning. It places before lawmakers the historical record, the constitutional design, and the foreseeable consequences of inaction, and asks that authority be exercised with full awareness of its long horizon effects.

Such interruption is not antagonistic to democratic governance. *It is one of its highest expressions.* A constitutional system remains legitimate not because it avoids moral burden, but because it recognizes when that burden must be consciously borne. This Doctrine is offered in that spirit: *as an invitation to lawful reflection, a restoration of constitutional memory, and a reaffirmation that stewardship—not momentum—is the true measure of democratic authority.*

Authorial Standing — Qualifications, Methodological Competence, and Jurisprudential Relevance

The author, Nicolin Decker, submits this Doctrine as an independent systems architect and policy strategist whose work resides at the intersection of constitutional law, monetary architecture, institutional design, and national security risk analysis. The author's standing is grounded not in partisan affiliation or institutional appointment, but in sustained analytical engagement with constitutional structure, sovereign finance, and systemic continuity under stress.

The author has acknowledged and demonstrated competencies on record in the following domains:

Constitutional Law and Structural Jurisprudence.

The author's work reflects sustained engagement with Article I monetary authority, separation-of-powers doctrine, non-delegation principles, and the constitutional mechanics of accountability, closure, and legitimacy. This Doctrine proceeds from structural constitutional reasoning rather than outcome-driven policy advocacy, aligning with jurisprudential traditions that evaluate institutions by design integrity, corrigibility, and durability across time.

Diplomacy and Sovereign Governance.

The author's analysis incorporates an understanding of democratic legitimacy as a function of institutional architecture, consistent with long-standing United States foreign policy practice regarding democratic seeding, institutional accountability, and post-crisis governance reconstruction. Comparative sovereign experience is employed not to prescribe foreign models, but to illuminate constitutional invariants relevant to domestic continuity and international legitimacy.

Economic Modeling and Monetary Systems Design.

The author has developed and applied macro-structural economic models addressing elasticity, settlement capacity, debt continuity, and institutional memory. These models emphasize system behavior under stress rather than equilibrium conditions, prioritizing loss allocation, enforcement dynamics, and closure mechanisms over abstract efficiency metrics. Economic reasoning is integrated as a constitutional instrument, not a substitute for legal authority.

National Security and Systemic Risk Vectors.

This Doctrine explicitly treats monetary architecture as a national security variable. The author has acknowledged and analyzed systemic risk vectors including liquidity collapse, enforcement cascades, institutional opacity, democratic legitimacy erosion, and architectural entrenchment beyond public correction. The work proceeds from the premise—widely recognized in national security doctrine—that constitutional failure modes and systemic fragility constitute upstream security threats rather than downstream policy concerns.

Methodologically, the Doctrine employs a *structural-systems approach* rather than doctrinal abstraction alone. Historical precedent, institutional practice, legal authority, and crisis-era empirical behavior are integrated to test whether monetary architectures preserve or degrade constitutional closure over long horizons. The analysis is deliberately non-technological in bias: systems are evaluated not by novelty or decentralization claims, but by accountability, corrigibility, and sovereign legibility.

Jurisprudentially, this work is offered as a *doctrinal synthesis*, **not** an advocacy brief. It is designed to assist courts, legislators, regulators, and policymakers in identifying constitutional thresholds, failure modes, and guardrails applicable to evolving monetary and settlement systems. The author does not claim exclusive authority over these questions, but submits this Doctrine as a rigorously constructed reference point intended to clarify—not resolve—the constitutional burdens carried by modern monetary governance.

The author affirms that this work is presented in good faith, without institutional endorsement, and with full recognition that constitutional stewardship requires contestability. The purpose of this Doctrine is not to foreclose debate, but to elevate it—by restoring constitutional structure, historical memory, and national-security consequence to a discourse too often confined to technical or ideological frames.

Reader's Methodological Orientation

This Doctrine is not written as a policy proposal, technical specification, or ideological critique. It is written as a work of **constitutional structure analysis**. Readers are therefore advised to approach the text not by assessing whether particular conclusions align with preferred economic models or institutional outcomes, but by evaluating whether the *structural logic of constitutional governance* is preserved across time, stress, and systemic change.

The methodology employed throughout this work is **structural, historical, and institutional**, rather than predictive or prescriptive. It proceeds from the premise—well established in constitutional jurisprudence—that durable governance is not defined by short-term efficiency or market performance, but by the capacity of institutions to preserve legitimacy, accountability, and lawful closure under adverse conditions. The Doctrine therefore examines monetary and settlement architectures primarily through their effects on *obligation, enforcement, consent, and corrigibility*, rather than through metrics of innovation, decentralization, or transactional speed.

Readers should note that this work does not assume that constitutional meaning is static in form. It assumes, instead, that constitutional *function* must remain continuous even as institutional expression evolves. Accordingly, historical analysis is employed not as antiquarian reference, but as functional calibration—testing whether modern architectures replicate or erode the stabilizing properties the Constitution was designed to secure. The Founding era is treated as an origin of governing principles, not as a technological ceiling.

The Doctrine deliberately distinguishes between *delegation and abdication, elasticity and discretion, decentralization and unaccountability, and innovation and architectural substitution*. These distinctions are not rhetorical. They are methodological guardrails intended to prevent category error—particularly the misclassification of technical systems as constitutionally neutral when they perform sovereign-adjacent functions in practice. Readers are encouraged to evaluate arguments with attention to *where authority actually operates*, not merely where it is formally assigned.

This work should also be read with an awareness of its *long-horizon lens*. Many of the risks identified herein—particularly those associated with institutional opacity, rigidity, and Architectural Sovereignty Contagion—do not manifest as immediate failure. They manifest as cumulative dilution. The Doctrine therefore prioritizes generational continuity over episodic stability and treats the erosion of correction mechanisms as a more serious constitutional threat than isolated policy error.

Importantly, this text does not ask the reader to accept any particular institutional arrangement as optimal. It asks the reader to assess whether emerging arrangements preserve the Constitution's core requirements: public accountability, lawful authority, institutional memory, and the ability to terminate obligation without coercion. Where a system satisfies these conditions, it may be consistent with constitutional governance even if unfamiliar. Where it does not, no degree of efficiency or popularity can supply constitutional legitimacy.

Finally, readers are cautioned against interpreting this Doctrine as an argument for institutional permanence. The Constitution does not sanctify specific offices or mechanisms. It sanctifies *responsibility*. Institutions may evolve, merge, or dissolve—provided that the functions they perform remain publicly legible, democratically answerable, and legally corrigible. This work is therefore best read not as a defense of any single institution, but as a defense of the *constitutional conditions under which institutions may legitimately act*.

The intended reader is not a passive consumer of conclusions, but an active constitutional steward. This Doctrine invites scrutiny, challenge, and refinement—so long as such engagement proceeds within the same methodological discipline it demands: fidelity to structure, humility before history, and seriousness about the consequences of systemic design.

Institutional Independence and Non-Affiliation Statement

The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity is an independent scholarly and doctrinal work. The author is not, and has never been, affiliated with, employed by, contracted by, advised by, or acting on behalf of any governmental body, intelligence service, military branch, law-enforcement agency, private corporation, nonprofit institution, academic university, research laboratory, or external organization referenced within this Doctrine.

All institutional names appearing in this work—including but not limited to federal departments, independent agencies, courts, academic institutions, and policy organizations—are referenced **solely to identify the constitutional, legal, historical, or analytical standards** against which the Doctrine is intentionally framed for evaluation. Their inclusion serves an evaluative and comparative purpose only and **does not imply endorsement, sponsorship, collaboration, consultation, review participation, or institutional involvement** in the creation, revision, or dissemination of this work.

No portion of this Doctrine incorporates, relies upon, or reflects classified, privileged, pre-decisional, non-public, or restricted governmental information. All analysis is derived exclusively from publicly available constitutional text, statutory law, judicial precedent, historical practice, openly published economic and institutional data, and generally accessible systems-architecture and national-security methodologies.

References to institutions such as the White House National Security Council, the Federal Reserve System, the United States Department of the Treasury, the United States Department of State, the United States Congress, the Supreme Court of the United States, Harvard Law School, the Massachusetts Institute of Technology, or any other named body are made **strictly for purposes of scholarly alignment, doctrinal testing, and peer-review suitability**. No such reference should be construed as indicating approval, validation, adoption, or participation by any such institution.

The author alone bears full responsibility for all arguments, interpretations, analytical frameworks, structural models, and doctrinal conclusions advanced herein. All original concepts—including but not limited to **Architectural Sovereignty Contagion (ASC)**, the constitutional framing of **monetary closure**, and the analysis of **elasticity and institutional memory as continuity mechanisms**—are the independent intellectual work of the author and do not represent the official views, policies, or positions of any governmental, academic, or private entity.

This Doctrine is written and submitted solely in the tradition of **independent constitutional scholarship**. Its purpose is to clarify first-order structural principles of monetary authority, to examine the constitutional conditions under which obligation may be lawfully created and

terminated, and to provide legislators, jurists, regulators, and scholars with a rigorous framework for evaluating institutional accountability and democratic continuity under monetary stress.

Nothing in this Doctrine shall be interpreted as legal advice, agency guidance, policy instruction, regulatory recommendation, or operational directive attributable to any governmental or private institution. The work is offered exclusively for academic scrutiny, public understanding, and the advancement of constitutional analysis concerning sovereign monetary architecture.

The Constitutional Doctrine of Monetary Closure therefore stands as a fully independent scholarly contribution, unaffiliated with any institution, and submitted solely for evaluative review, doctrinal engagement, and the preservation of constitutional clarity in an era of systemic monetary transformation.

Table of Contents

Title	Page Number
<u>Abstract</u>	4
<u>Declaration of Intent</u>	5
<u>Authorial Standing — Qualifications, Methodological Competence, and Jurisprudential Relevance</u>	6
<u>Reader’s Methodological Orientation</u>	8
<u>Institutional Independence and Non-Affiliation Statement</u>	10
<u>Foreword</u>	16
<u>§I. Money Misdefined</u>	17
§I.A. The Modern Category Error	17
§I.B. The Founding Generation’s Unique Monetary Experience	18
§I.C. Crisis, Not Equilibrium, as the Proper Test	19
<u>§II. The Articles of Confederation and Monetary Non-Authority</u>	21
§II.A. Structural Monetary Absence Under the Articles	22
§II.B. Post-War Depression Mechanics (1777–1786)	22
— Liquidity Contraction	23
— Interstate Fragmentation	23
— Creditor–Debtor Asymmetry	23
§II.C. Barter Reversion as Diagnostic Signal	24
— Grain and Cattle Exchanges	24
— Why Barter Signals Failure, Not Choice	24
§II.D. Popular Demands for Tender Redefinition	25
— Petitions to Recognize Commodities as Tender	25
— Constitutional Meaning of These Demands	26
— Concluding Statement	26
<u>§III. Debt, Enforcement, and the Limits of Neutral Law</u>	27
§III.A. Debt Saturation Without Money	28
§III.B. Moratoria as Constitutional Safety Valves	29
§III.C. Shays’ Rebellion Reframed	30
— Not Populism, but Systemic Stress Disclosure	30

— <u>Elite Recognition of Structural Failure</u>	31
<u>§III.D. Early Legal Consciousness of the Problem</u>	31
— <u>Fear of Cycles of Rebellion</u>	31
— <u>Recognition That Courts Alone Were Insufficient</u>	32
<u>§IV. Money as an Office, Not an Object</u>	33
<u>§IV.A. Why the Founders Rejected Purely Asset-Based Money</u>	35
<u>§IV.A.1. The Failure of Objects to Terminate Obligation</u>	35
<u>§IV.A.2. Colonial Paper Failures Revisited</u>	36
<u>§IV.A.3. Commodity Rigidity Lessons</u>	37
<u>§IV.A.4. Doctrinal Clarification: Asset-Based vs. Asset-Backed Money</u>	38
— <u>Asset-Based Money (Rejected)</u>	39
— <u>Asset-Backed Money (Accepted)</u>	39
— <u>Founding Insight</u>	39
<u>§IV.A.5. Why an Office Was Constitutionally Necessary</u>	40
<u>§IV.B. Monetary Authority in Article I</u>	41
— <u>The Taxing Power</u>	41
— <u>The Borrowing Power</u>	41
— <u>The Bankruptcy Power</u>	42
— <u>Coinage and Regulation of Value</u>	42
<u>§IV.C. The Prohibition of State Tender as Structural Safeguard</u>	43
— <u>Preventing Fragmented Tender Regimes</u>	43
— <u>Separating Fiscal Autonomy from Monetary Authority</u>	43
— <u>Guarding Against Coercion and Localized Power</u>	43
— <u>Reinforcing Money as an Office, Not an Object</u>	44
— <u>Constitutional Continuity Under Stress</u>	44
<u>§V. Legal Tender as Constitutional Closure</u>	46
<u>§V.A. Tender Beyond Medium of Exchange</u>	47
— <u>Final Settlement</u>	47
— <u>Legal Peace</u>	47
— <u>Systemic Closure</u>	48
<u>§V.B. Founding-Era Tender Logic</u>	48
<u>§V.C. Contracts, Public Necessity, and Limits</u>	49

— <u>The Contracts Clause Tension</u>	50
— <u>Why Accommodation Preserves Contract Legitimacy Long-Term</u>	50
<u>§V.D. Tender, Crisis, and Institutional Memory</u>	51
— <u>Tender as Institutional Memory</u>	51
— <u>Crisis as the Moment of Revelation</u>	52
— <u>Preservation of Legal Peace Across Generations</u>	52
<u>§V.E. Modern Misclassification of Tender and Money</u>	53
<u>§VI. Elasticity, Rules, and Institutional Memory</u>	55
<u>§VI.A. Elasticity as Continuity, Not Innovation</u>	57
<u>§VI.B. The Federal Reserve as Institutional Memory</u>	58
— <u>Temporal Limits</u>	59
— <u>Transparency</u>	59
— <u>Institutional Accountability</u>	60
<u>§VI.C. Limits, Restraint, and the Non-Delegation Boundary</u>	60
— <u>Historical Safeguards Against Unbounded Monetary Power</u>	60
— <u>The Non-Delegation Principle as Monetary Guardrail</u>	61
— <u>Why Elasticity Requires Governance, Not Denial</u>	61
— <u>Restraint as Constitutional Fidelity</u>	62
<u>§VI.D. Concluding Reflection — Elasticity as Constitutional Safeguard</u>	62
<u>§VII. Fiscal–Monetary Coordination and National Solvency</u>	64
<u>§VII.A. Debt Management as a Sovereign Function</u>	65
— <u>War Debt as Constitutional Instruction</u>	65
— <u>Legitimacy Through Management, Not Enforcement</u>	65
— <u>Long-Term Continuity Versus Short-Term Extraction</u>	66
<u>§VII.B. Treasury–Congress–Monetary Coordination</u>	67
— <u>Separation as a Guardrail, Not a Barrier</u>	67
— <u>Why Fiscal Authority Requires Monetary Accommodation</u>	68
— <u>Modern Sovereign Debt Crises as Confirmation, Not Deviation</u>	68
— <u>Modern Empirical Confirmation of Constitutional Coordination</u>	69
— <u>Coordination as Constitutional Fidelity</u>	70
<u>§VII.C. Historical Continuity into Modern Institutions</u>	71
<u>§VIII. Congressional Authority and Democratic Legibility</u>	73

<u>§VIII.A. Why Monetary Authority Must Remain Publicly Accountable</u>	75
<u>§VIII.B. Public Accountability as a Constitutional Requirement</u>	76
<u>§VIII.C. Architectural Sovereignty Contagion and Democratic Risk</u>	77
— <u>Architectural Sovereignty Contagion (ASC) — Formal Definition</u>	77
— <u>How Architectural Sovereignty Contagion Occurs</u>	77
— <u>Historical Validation by Contrast: Democratic Seeding as Architectural Immunization Against ASC</u>	78
— — <u>Post–World War II Germany</u>	78
— — <u>Post–World War II Japan</u>	78
— — <u>South Korea</u>	79
— — <u>Grenada</u>	79
— <u>Why Monetary Architecture Is the Primary Vector of Risk</u>	80
— <u>Democratic Consequences Over a 100-Year Horizon</u>	80
— <u>Constitutional Design as a Preventive Architecture</u>	81
— <u>Legislative Implication: Stewardship, Not Suppression</u>	81
— <u>Congressional Briefing Insert</u>	82
<u>§VIII.D. Transparency as Constitutional Safeguard</u>	86
<u>§VIII.E. The Dangers of Delegating Rigidity</u>	87
— <u>Systems That Cannot Pause</u>	87
— <u>Enforcement Without Representation</u>	87
— <u>Rigidity as Constitutional Risk</u>	88
<u>§VIII.F. Congress as the Ultimate Backstop</u>	88
<u>§IX. Misclassification in Modern Monetary Discourse</u>	90
<u>§IX.A. Scarcity Without Accommodation</u>	92
<u>§IX.B. Accommodation Without Accountability</u>	94
<u>§IX.C. Elasticity With Accountability as Constitutional Closure</u>	94
<u>§X. Money That Can Carry a Republic Through Crisis</u>	96
<u>§XI. Author’s Reflection</u>	98
<u>References</u>	99

Foreword

The challenges confronting the American Republic in the present age are often described as unprecedented. They *are* not. What is new is their form—technological, global, and accelerated—but *not* their substance. The underlying tensions between debt and payment, authority and restraint, rigidity and accommodation have confronted the Republic before, and they were confronted at moments of far greater fragility than our own.

This paper is offered in that spirit of continuity. It belongs to *The Republic's Conscience* series not as a proposal for innovation, but as a restoration of memory. The questions examined here—about money, law, and institutional survival—were not abstract to the Founding generation. They were lived. They were tested in war finance, in currency collapse, and in the social strain that followed independence. The responses that emerged were shaped not by theory alone, but by necessity.

Much of what is treated in the pages that follow can be traced to the persistent efforts of Alexander Hamilton and to the hard lessons revealed by events such as Shays' Rebellion in 1786. These were not peripheral episodes; they were formative disclosures. They exposed the consequences of monetary systems that could not accommodate stress, of debt enforcement divorced from social capacity, and of authority insufficiently structured to preserve order without oppression. The constitutional solutions that followed were not acts of novelty. They were acts of recognition.

The central claim of this work is therefore modest, though its implications are substantial: many of the dilemmas facing the Republic today do not require new laws so much as renewed orientation. The Founders did not bequeath us a set of frozen answers, but they did leave us a disciplined method—one grounded in experience, attentive to failure, and anchored in the belief that lawful discretion, properly bounded, is not a weakness of republican government but a condition of its endurance.

If this paper succeeds in any measure, it will have clarified that the architecture of American monetary authority was forged in response to stress, not designed for idealized conditions. The solutions examined here are not inventions. *They are inheritances*. To understand them is not to look backward in nostalgia, but to look forward with steadier footing, guided by the knowledge that the Republic has faced these trials before—and *learned* from them.

§I. Money Misdefined

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

Modern debates over money often begin with confidence and end in confusion. Definitions proliferate, technologies evolve, and market behaviors are cataloged with increasing precision. Yet the foundational question—*what money must do in order to sustain a constitutional republic*—is rarely addressed directly. Instead, contemporary discourse tends to extract monetary meaning from periods of stability, mistaking peacetime performance for constitutional adequacy.

This section advances a different approach. It begins from the premise that money cannot be understood apart from the legal and institutional environment in which it operates, nor can it be evaluated solely by how efficiently it circulates when stress is absent. Monetary systems, like constitutions themselves, reveal their true character not in equilibrium, but under pressure—when obligations exceed capacity, when losses must be allocated, and when enforcement choices determine whether order is preserved or legitimacy erodes.

Chapter I therefore proceeds in three steps. Section §I.A identifies the prevailing category error in modern monetary thought: the tendency to define money by scarcity, adoption, or mechanical neutrality without reference to lawful accommodation under stress. Section §I.B turns to the lived experience of the Founding generation, demonstrating that early Americans encountered money not as an abstract medium of exchange, but as fragile survival infrastructure shaped by war finance, currency collapse, and debt saturation. Section §I.C then explains why crisis, rather than equilibrium, provides the proper evaluative lens for monetary authority, and previews how this framework will guide the analysis that follows.

Taken together, these sections establish the core claim of this paper: that money in a constitutional republic is not defined by how it behaves when nothing is demanded of it, but by whether it can preserve legal closure, mediate loss, and sustain institutional legitimacy when everything is. Only once that standard is restored can historical experience, constitutional design, and modern monetary governance be meaningfully understood in relation to one another.

§I.A. The Modern Category Error

Contemporary discourse surrounding money increasingly relies on definitions derived from peacetime market behavior rather than from constitutional function. Three criteria recur most frequently: *scarcity*, *market adoption*, and *code-enforced neutrality*. Each captures a surface attribute of exchange systems under ordinary conditions. None, however, survives sustained institutional stress.¹

First, *scarcity-based definitions* treat limited supply as the primary guarantor of monetary reliability. Scarcity is presumed to protect value by constraining issuance and insulating money from political manipulation.² While scarcity may discipline issuance during stable periods, it provides no mechanism for addressing liquidity collapse, debt overhang, or asymmetric enforcement during crises. Under stress, scarcity does not stabilize obligations; it amplifies

default by rendering settlement mathematically impossible at scale.³ Historically, such conditions have produced not confidence, but barter regression, debt imprisonment, and social unrest.⁴

Second, *market-adoption-based definitions* equate monetary legitimacy with widespread voluntary use. On this view, money emerges organically when participants converge on a preferred medium of exchange.⁵ This approach abstracts away from the legal environment in which markets operate. Widespread adoption does not confer the capacity to suspend enforcement, restructure obligations, or provide finality when contractual performance becomes systemically unattainable.⁶ The Founding generation encountered precisely this failure: markets continued to function, but without lawful accommodation they became instruments of fragmentation rather than coordination.⁷

Third, *code-enforced neutrality* advances the claim that monetary systems achieve legitimacy by eliminating discretion altogether. Rules embedded in software are said to ensure fairness by applying uniformly and automatically, free from human judgment.⁸ This conception mistakes consistency for justice and automation for neutrality. Uniform enforcement under conditions of unequal shock does not preserve order; it accelerates collapse.⁹ Law has long recognized that neutrality without discretion is not impartiality, but abdication.¹⁰ Constitutional systems therefore distribute discretion across accountable institutions rather than abolishing it.¹¹

What unites these definitions is a shared assumption: that money can be defined independently of the legal and institutional context in which it operates. This assumption holds only so long as stress is absent. When crisis arrives—when debts cannot be paid, liquidity evaporates, and enforcement threatens social continuity—systems optimized for rigidity reveal their fragility.¹²

The early American experience demonstrates that money is not defined by how it behaves when nothing is demanded of it, but by how it responds when everything is. Under constitutional stress, money must do more than circulate value; it must preserve legal closure, mediate competing claims, and maintain legitimacy in the face of unavoidable loss. Definitions that cannot account for these functions are not incomplete. They are categorically wrong.¹³

§I.B. The Founding Generation’s Unique Monetary Experience

The American Founding generation did not encounter money as a neutral medium of exchange operating under conditions of stability. They encountered it as a *scarce, fragile, and frequently collapsing instrument*, inseparable from war, debt, and political survival.¹⁴ The Revolution was financed not through a consolidated fiscal authority, but through improvised borrowing, requisitions, and large-scale issuance of paper currency unsupported by effective taxing power.¹⁵ The result was not merely inflation, but a prolonged crisis of confidence that revealed the limits of money divorced from enforceable authority.¹⁶

Continental currency collapse was not an abstract monetary failure; it was a lived social trauma. By the early 1780s, depreciation had rendered paper obligations nearly meaningless, disrupting trade, fragmenting regional economies, and eroding trust between citizens and governments.¹⁷ “Not worth a Continental” entered common usage not as rhetoric, but as a factual assessment of

monetary breakdown.¹⁸ This experience left a durable imprint: money that could not command settlement under law could not sustain a polity under strain.

Compounding currency instability was *debt saturation*. Wartime borrowing left farmers, merchants, and veterans deeply indebted in an environment where liquid means of payment were vanishing.¹⁹ Courts continued to enforce obligations as if equilibrium conditions still prevailed, producing waves of foreclosures, imprisonment for debt, and forced transfers of land.²⁰ For many Americans, the problem was not refusal to pay, but the impossibility of payment within the existing monetary structure.²¹

These pressures taught an unmistakable lesson. Money was not merely a convenience for exchange; it was *infrastructure for survival*. Without lawful mechanisms to mediate loss, suspend enforcement, or redefine tender, monetary systems became engines of social fracture.²² Barter, commodity tender demands, and calls for moratoria were not rejections of law, but appeals for law to resume its coordinating function.²³

The Founders therefore approached monetary design with a sobriety born of failure. They understood that money must retain the capacity to operate when markets seize, when debts overwhelm available means, and when strict enforcement threatens political legitimacy itself.²⁴ This understanding explains why the Constitution does not treat money as a self-executing object, but as an authority to be exercised—bounded by rules, accountable to the public, and capable of adaptation under stress.²⁵ In short, early Americans understood money not as an abstract store of value, but as *survival architecture for a republic tested by loss*.²⁶

§I.C. Crisis, Not Equilibrium, as the Proper Test

Constitutional systems are not designed to reveal their logic under conditions of ease. They are designed to *withstand pressure*, to absorb shock without forfeiting legitimacy, and to preserve continuity when ordinary assumptions fail.²⁷ Periods of equilibrium obscure institutional purpose because the costs of design choices remain latent. It is only when systems are stressed—when obligations exceed capacity, when enforcement threatens stability, and when loss must be allocated—that constitutional architecture becomes visible.²⁸

This insight is neither novel nor controversial within constitutional theory. Courts, legislatures, and executive institutions are routinely evaluated not by their routine operations, but by their conduct during emergencies, recessions, and wars.²⁹ The same is true of monetary systems. Money that appears stable during growth cycles may fail catastrophically when confronted with liquidity collapse or debt saturation.³⁰ Definitions derived solely from equilibrium behavior therefore misidentify surface performance for structural adequacy.³¹

The Founding generation understood this distinction intuitively. Their formative experiences occurred not in periods of prosperity, but amid war finance, currency collapse, and social strain. Monetary arrangements were judged not by efficiency or elegance, but by whether they could sustain the Republic through scarcity, loss, and political contestation.³² A system that functioned only when nothing was demanded of it was regarded not as disciplined, but as brittle.³³

Modern constitutional analysis affirms this approach. Stress conditions reveal whether authority is properly allocated, whether discretion is bounded yet available, and whether institutions possess the capacity to respond without abandoning accountability.³⁴ Rigidity that appears neutral in calm periods often concentrates harm during crises, while discretion exercised through accountable offices preserves legitimacy even when outcomes are imperfect.³⁵

This paper therefore adopts *crisis behavior* as the primary evaluative lens for monetary authority. It proceeds on the premise that money must be assessed not by how it circulates during stability, but by how it performs when stability dissolves. The sections that follow reconstruct the post-Revolutionary monetary breakdown, examine the legal and social consequences of debt enforcement without accommodation, and trace how these failures shaped the Constitution's allocation of monetary power.³⁶

From that historical foundation, the analysis turns to institutional design. It explains why monetary authority emerged as an *office* rather than an object, why legal tender functions as constitutional closure, and why elasticity — when rule-bounded and publicly accountable — is a feature of continuity rather than a deviation from law.³⁷ Finally, the paper draws out the implications of this framework for contemporary monetary discourse, demonstrating that systems incapable of lawful accommodation under stress replicate, rather than transcend, the failures of the Confederation era.³⁸

In this way, crisis serves not as an exception to constitutional analysis, but as its proving ground. It is under pressure, not equilibrium, that the true character of money — and the institutions that govern it — is revealed.³⁹

§II. The Articles of Confederation and Monetary Non-Authority

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

The monetary crisis that followed American independence was not an unfortunate byproduct of peace, nor the result of temporary misjudgment. It was the foreseeable outcome of a governing framework that *lacked the legal and institutional prerequisites of monetary authority*. The Articles of Confederation created a union capable of declaring independence and prosecuting war, but incapable of sustaining economic coherence once victory had been secured.

This section examines that failure in structural terms. It does not treat the post-war depression as an aberration, nor does it attribute breakdown to popular unrest or market irrationality. Instead, it situates economic distress within the constitutional design of the Confederation itself—a design that intentionally withheld taxing enforcement, unified borrowing authority, and national tender finality from the central government. The result was a system that could circulate obligations without the means to resolve them.

Chapter II proceeds in four stages. Section §II.A identifies the core absences embedded in the Articles of Confederation and explains why these were not merely administrative weaknesses, but fatal constraints on monetary governance. Section §II.B traces how those structural absences manifested as concrete economic mechanics—liquidity contraction, interstate fragmentation, and creditor–debtor asymmetry—producing conditions under which ordinary market adjustment was impossible. Section §II.C then examines the social response to this breakdown, focusing on the reversion to barter as a diagnostic signal that money had ceased to perform its coordinating function. Finally, Section §II.D analyzes popular petitions for tender redefinition, demonstrating how appeals to recognize commodities as lawful tender constituted an implicit constitutional critique of the Confederation’s monetary incapacity.

Taken together, these sections establish a critical proposition: the Confederation did not fail because Americans rejected monetary discipline, but because the governing structure denied itself the authority necessary to enforce, mediate, and close obligations under stress. What emerged in the late 1780s was not simply economic hardship, but a recognition—shared by citizens and statesmen alike—that a republic cannot endure without a monetary system capable of terminating obligation as a matter of law.

This realization would prove decisive. The failures examined in this section did not merely inform later reform; they compelled it. The constitutional settlement that followed was shaped less by theory than by necessity—by the lived understanding that monetary authority is not optional infrastructure, but a prerequisite for social continuity in a self-governing republic.

§II.A. Structural Monetary Absence Under the Articles

The monetary failures that followed the Revolutionary War were not accidental. They were the predictable consequence of a constitutional arrangement that *deliberately* denied itself the core attributes of monetary authority. Under the Articles of Confederation, the national government possessed neither the instruments nor the institutional coherence required to sustain a unified monetary system.⁴⁰ The result was not merely inefficiency, but structural incapacity.

First, the Confederation lacked *taxing enforcement*. Although Congress could requisition funds from the states, it possessed no authority to compel payment.⁴¹ Compliance depended entirely on state willingness, which varied widely according to local fiscal conditions and political pressures.⁴² This absence of enforceable revenue meant that national obligations—particularly war debts—could not be serviced reliably, and monetary issuance proceeded without a credible fiscal backstop.⁴³ Money circulated, but authority did not.

Second, there was *no unified borrowing authority*. Congress could incur debt in theory, but without independent revenue or enforcement power, it could not borrow on durable terms.⁴⁴ Creditors understood that repayment depended on fragmented state action rather than national commitment.⁴⁵ As a result, borrowing costs rose, confidence eroded, and public credit deteriorated precisely when stability was most needed.⁴⁶ The Confederation thus lacked not only fiscal capacity, but fiscal identity.

Third, the Articles provided *no tender finality*. Congress could neither impose a national legal tender nor ensure uniform settlement of obligations across state lines.⁴⁷ States experimented independently with paper money laws, tender statutes, and debtor relief measures, producing a patchwork of inconsistent rules that undermined interstate commerce and legal predictability.⁴⁸ Obligations enforceable in one jurisdiction might be discharged in another, and contracts lost their coordinating function.⁴⁹ Money ceased to operate as a unit of closure and instead became a source of jurisdictional conflict.

Together, these absences rendered the Confederation *monetarily hollow*. There was circulation *without* coordination, obligation *without* enforceability, and debt *without* a sovereign mechanism for mediation.⁵⁰ **The system did not fail because it was mismanaged; it failed because it was structurally incapable of responding to stress.** The post-war depression therefore did not merely expose policy error. It revealed a constitutional void—one that could not be filled by market adaptation alone.⁵¹

§II.B. Post-War Depression Mechanics (1777–1786)

The economic distress that followed the Revolutionary War did not arise from a single policy failure or cyclical downturn. It emerged from a *convergence of structural weaknesses* that transformed wartime exhaustion into a prolonged depression. Liquidity contraction, interstate fragmentation, and creditor–debtor asymmetry interacted to produce conditions under which ordinary market adjustment became impossible.⁵² These mechanics are essential to

understanding why monetary reform was ultimately treated as a *constitutional necessity* rather than a discretionary improvement.

A. Liquidity Contraction

By the early 1780s, the American economy experienced a severe *contraction of liquid means of payment*. Continental currency had collapsed, specie was scarce, and no national authority possessed the capacity to expand or stabilize the money supply.⁵³ States, wary of inflation and external credibility, often restricted paper issuance just as economic recovery required greater circulation.⁵⁴ The result was not price stability, but paralysis. Transactions slowed, debts matured without means of settlement, and productive assets were forced into distress sales.⁵⁵

This contraction had a compounding effect. As money disappeared from circulation, confidence eroded further, encouraging hoarding and accelerating deflationary pressure.⁵⁶ What might have been a temporary adjustment following wartime demobilization instead hardened into systemic scarcity. Without an institution capable of acting as a monetary backstop, liquidity collapse became self-reinforcing.⁵⁷

B. Interstate Fragmentation

Liquidity scarcity was intensified by *interstate fragmentation*. Under the Articles of Confederation, each state retained control over its own fiscal and monetary policies, producing divergent responses to shared economic stress.⁵⁸ Some states adopted debtor-relief measures or experimented with paper money; others enforced hard-money regimes and strict contract performance.⁵⁹ The absence of a coordinating authority transformed policy diversity into economic disintegration.

Interstate commerce suffered accordingly. Credit contracted across borders, exchange rates fluctuated unpredictably, and legal obligations lost uniform meaning.⁶⁰ Merchants faced uncertainty not only about prices, but about which laws would govern settlement. Rather than facilitating adjustment, markets became channels through which fragmentation spread.⁶¹ The Confederation thus failed to function as a single economic unit at precisely the moment unity was most required.⁶²

C. Creditor–Debtor Asymmetry

These conditions produced a pronounced *creditor–debtor asymmetry*. Creditors—often holders of specie or foreign-denominated claims—were positioned to demand strict enforcement, while debtors faced shrinking incomes and vanishing liquidity.⁶³ Courts, bound by existing contract doctrines and lacking systemic tools for accommodation, enforced obligations as written.⁶⁴ The law treated individual default as moral failure rather than structural impossibility.

The consequences were severe. Foreclosures, imprisonment for debt, and forced land transfers concentrated economic power while deepening social resentment.⁶⁵ Importantly, these outcomes

were not the result of widespread repudiation, but of enforcement mismatched to economic reality.⁶⁶ The imbalance between legal obligation and monetary capacity transformed the judiciary from an arbiter of order into an unintended *accelerant of instability*.⁶⁷

Taken together, these mechanics explain why post-war distress resisted ordinary correction. Liquidity contraction removed the means of payment; interstate fragmentation prevented coordinated response; creditor–debtor asymmetry converted scarcity into coercion.⁶⁸ The depression of 1777–1786 was therefore not merely a difficult adjustment period. It was a systemic failure that exposed the impossibility of sustaining a republic without coherent monetary authority.⁶⁹

§II.C. Barter Reversion as Diagnostic Signal

As post-war depression deepened in the 1780s, Americans increasingly resorted to barter, exchanging commodities such as grain, cattle, and other tangible goods in lieu of money.⁷⁰ This reversion was not the result of preference, innovation, or cultural resistance to currency. It was a *diagnostic signal*—an observable indicator that the monetary system had ceased to perform its coordinating function.⁷¹ Where money fails, barter does not emerge as an alternative system; it emerges as a *symptom of institutional breakdown*.

A. Grain and Cattle Exchanges

Contemporary accounts record widespread substitution of agricultural goods for monetary payment. Farmers tendered grain or livestock to satisfy debts, merchants accepted produce in settlement of accounts, and local communities improvised exchange networks anchored in physical commodities.⁷² These practices reflected necessity rather than efficiency. Grain spoiled, cattle required maintenance, and transport costs were high. Yet such goods retained one decisive advantage: *they existed when money did not*.⁷³

Petitions to state legislatures frequently requested that grain or cattle be declared legal tender, not because these commodities were superior media of exchange, but because they offered the only remaining means of discharging obligations.⁷⁴ The demand for commodity tender thus signaled a deeper failure: the absence of a monetary instrument capable of settling debts under law. Where money cannot close obligations, society seeks closure elsewhere.⁷⁵

B. Why Barter Signals Failure, Not Choice

Barter is often mischaracterized as a voluntary return to primitive exchange or as evidence of market adaptability. Historical experience suggests the opposite. Barter arises not when markets are free, but when *monetary authority is absent or incapacitated*.⁷⁶ It multiplies transaction costs, fragments price signals, and localizes exchange precisely when broader coordination is required.⁷⁷

For the Founding generation, barter carried unmistakable meaning. It marked the collapse of uniform value, the erosion of contractual predictability, and the retreat of law from economic life.⁷⁸ The spread of barter therefore intensified social strain rather than alleviating it, as obligations became contingent on geography, power, and perishability rather than on stable legal tender.⁷⁹

Crucially, barter did not resolve the underlying debt problem. It redistributed hardship unevenly and favored those with durable or transportable goods.⁸⁰ Creditors remained exposed, debtors remained constrained, and courts remained ill-equipped to translate commodity exchange into legal finality.⁸¹ In this sense, barter functioned as a *warning flare*—evidence that the monetary system no longer mediated competing claims and that enforcement without accommodation had reached its limit.⁸²

The constitutional lesson drawn from this experience was decisive. A republic cannot rely on barter without dissolving into localism and coercion. Money must therefore be more than a circulating token; it must be an institution capable of restoring closure when exchange breaks down.⁸³ The resort to grain and cattle in the 1780s did not represent resilience. It represented **failure made visible**.⁸⁴

§II.D. Popular Demands for Tender Redefinition

As economic distress deepened during the post-war depression, Americans did not respond solely through private adaptation. They appealed directly to law. Across multiple states, debtors, farmers, and local communities petitioned legislatures to *redefine legal tender*, urging that commodities such as grain, cattle, and other tangible goods be recognized as lawful means of satisfying debts.⁸⁵ These demands were neither episodic nor marginal; they were widespread, persistent, and explicitly framed as appeals to public authority rather than market negotiation.⁸⁶

A. Petitions to Recognize Commodities as Tender

The substance of these petitions reveals their purpose. Petitioners did not claim that commodities were superior media of exchange. Nor did they argue for innovation in commerce. Instead, they emphasized *impossibility of payment* under existing monetary conditions and sought relief through lawful recognition of what remained available.⁸⁷ Grain and livestock were requested as tender not because they were efficient, but because they were present.⁸⁸

Importantly, these appeals were directed to legislatures rather than courts. Petitioners understood that only political authority could redefine the terms of obligation at scale.⁸⁹ Courts could enforce contracts, but they *could not* reconstitute settlement mechanisms once money had ceased to circulate. The turn toward legislative tender redefinition thus reflected a clear recognition: *the problem was not private default, but systemic failure of monetary closure*.⁹⁰

B. Constitutional Meaning of These Demands

The constitutional significance of these demands lies not in their immediate success or failure, but in what they disclosed about public understanding of money. The Founding generation did not mistake commodities for money. On the contrary, their petitions affirmed that money's defining feature was its *legal* function, *not its physical form*. When existing instruments could no longer terminate obligations, citizens sought lawful substitutes capable of restoring closure.⁹¹

These demands therefore constituted an implicit constitutional critique of the Confederation system. They exposed the absence of a national authority capable of providing uniform tender, mediating loss, and preserving legitimacy across jurisdictions.⁹² Commodity tender proposals were not endorsements of barter; they were *emergency signals* indicating that the monetary system had retreated to its most primitive state.⁹³

The Founders drew the lesson *clearly*. Allowing settlement to devolve into commodity substitution threatened to fragment the Republic into localized regimes of power, valuation, and enforcement.⁹⁴ A durable union *required* a monetary authority capable of compelling acceptance, standardizing discharge, and suspending enforcement when performance became systemically unattainable.⁹⁵ These functions could not be supplied by objects. They required an office.

C. Concluding Statement

The depression of 1777–1786 revealed a fundamental truth: **monetary transmission is not the movement of value through markets, but the lawful termination of obligation within a legal order**. Where money cannot perform that function, exchange regresses, enforcement hardens, and social continuity fractures.⁹⁶

§III. Debt, Enforcement, and the Limits of Neutral Law

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

The post-war crisis confronted the early Republic with a paradox at the heart of legal order: **law remained formally intact at the precise moment it became substantively destabilizing.** Courts continued to operate, contracts remained valid, and obligations were enforced according to settled doctrine. Yet the social consequences of this enforcement grew increasingly severe. What failed was not legality, but the assumption that legality alone could coordinate economic life under conditions of monetary collapse.

This section examines how debt saturation, monetary scarcity, and rigid enforcement interacted to expose the limits of neutral law. It does not argue that enforcement was improper, nor that obligations were illegitimate. Instead, it demonstrates that *neutral enforcement presupposes a functioning monetary environment*—one capable of terminating obligation rather than merely reallocating loss. When that presupposition failed, law’s ordinary tools became accelerants of instability.

Chapter III proceeds by tracing this realization across practice and response. Section §III.A establishes the mathematical impossibility of universal repayment in an economy deprived of money, showing why default became systemic rather than moral. Section §III.B examines temporary moratoria as constitutional safety valves—mechanisms that preserved obligation by suspending enforcement when performance was impossible. Section §III.C reframes Shays’ Rebellion not as populist rejection of law, but as a stress disclosure revealing the misalignment between enforcement and capacity. Section §III.D then demonstrates that these events produced an early legal consciousness of the problem: a growing recognition that courts alone were insufficient to sustain order when monetary authority was absent.

Together, these analyses converge on a single conclusion. Law cannot remain neutral when the conditions that make compliance possible have collapsed. In such moments, enforcement without accommodation ceases to preserve order and instead erodes legitimacy. The Founding generation did not learn this lesson in theory. They learned it through experience—and it would directly inform the constitutional settlement that followed.

§III.A. Debt Saturation Without Money

By the mid-1780s, the post-war American economy confronted a condition more severe than recession: *debt saturation without a functioning monetary system*. Obligations incurred during the Revolutionary War matured into an environment where liquid means of payment had collapsed, specie was scarce, and no national authority possessed the capacity to restore circulation.⁹⁷ Under such conditions, the question was no longer whether debts should be honored, but whether *universal repayment was mathematically possible*. **It was not.**

A. The Mathematical Impossibility of Universal Repayment

Debt saturation occurs when the aggregate value of enforceable obligations exceeds the total available means of settlement.⁹⁸ In the 1780s, this imbalance was acute. Public debts layered atop private obligations, while the circulating medium contracted sharply.⁹⁹ Even diligent and willing debtors could not perform. Payment failure became systemic rather than idiosyncratic, transforming default from an exception into a *structural inevitability*.¹⁰⁰

This condition exposes a critical distinction often obscured in periods of stability: **solvency is not solely a function of willingness or productivity, but of monetary capacity**.¹⁰¹ Where money cannot circulate, repayment becomes a zero-sum contest for scarce settlement instruments. Each successful payment requires another's failure. In such environments, enforcing all contracts as written does not restore order; it reallocates collapse.¹⁰²

The Founding generation recognized this reality intuitively. Petitions, legislative debates, and public commentary from the period repeatedly emphasized impossibility rather than evasion.¹⁰³ The crisis was not one of character, but of arithmetic. No amount of moral exhortation could reconcile obligations denominated in money with an economy deprived of it.¹⁰⁴

B. Enforcement as an Accelerant of Instability

In the absence of monetary accommodation, strict enforcement *intensified* rather than resolved instability. Courts, operating within traditional contract doctrines, continued to enter judgments and authorize seizures.¹⁰⁵ These actions satisfied formal legal requirements but ignored systemic capacity. The result was cascading foreclosure, imprisonment for debt, and forced transfer of productive assets.¹⁰⁶

Rather than restoring confidence, enforcement hardened social divisions. Creditors consolidated land and specie; debtors lost livelihoods and political voice.¹⁰⁷ Law, stripped of its coordinating function, became an instrument of compulsion rather than closure.¹⁰⁸ This dynamic transformed the judiciary from a stabilizing institution into an unintended vector of disorder.¹⁰⁹

Historical evidence demonstrates that instability did not arise from laxity, but from *rigidity applied under conditions of scarcity*.¹¹⁰ Enforcement assumed a functioning monetary

environment that no longer existed. When law demanded performance that the system could not supply, compliance failed and legitimacy eroded.¹¹¹

The lesson is structural and enduring. Debt enforcement presupposes the availability of money capable of terminating obligation. Where that presupposition fails, enforcement does not discipline markets—it *accelerates breakdown*.¹¹² This recognition would shape subsequent constitutional design, anchoring monetary authority not in moral judgment or mechanical enforcement, but in institutions capable of restoring settlement capacity when arithmetic makes universal repayment impossible.¹¹³

§III.B. Moratoria as Constitutional Safety Valves

Faced with debt saturation and monetary scarcity, several states turned to *temporary moratoria*—the suspension or delay of debt enforcement—as a means of stabilizing social order without dissolving legal obligation.¹¹⁴ These measures were frequently misunderstood by contemporaries and later commentators alike as evasions of responsibility or preludes to repudiation. In constitutional function, however, moratoria served a different purpose: they operated as *safety valves*, relieving pressure when strict enforcement threatened to fracture the legal and social fabric.¹¹⁵

A. Temporary Suspension vs. Repudiation

A moratorium is not a denial of debt. It is a *temporal adjustment* to enforcement, undertaken when performance is systemically unattainable.¹¹⁶ By contrast, repudiation extinguishes obligation altogether, severing the creditor’s claim and undermining public credit. The distinction is fundamental. Moratoria preserve the legitimacy of obligation by acknowledging its validity while deferring its execution until settlement capacity can be restored.¹¹⁷

Historical practice reflects this understanding. Legislative suspensions during the 1780s were often limited in duration, conditioned on demonstrable scarcity, and accompanied by explicit reaffirmations of contractual validity.¹¹⁸ Their objective was not to favor debtors permanently, but to prevent a cascade of defaults that would convert temporary scarcity into irreversible dispossession.¹¹⁹ In this sense, moratoria functioned as *bridges*, carrying obligations across periods when money could not perform its terminating role.¹²⁰

Critically, these measures recognized a constitutional reality: enforcement presupposes the existence of means. Where money has collapsed, insisting on immediate performance converts law into *coercion without closure*.¹²¹ Temporary suspension restores proportionality between obligation and capacity, allowing the legal system to remain credible while avoiding outcomes that would later require reversal or forgiveness.¹²²

B. Preservation of Social Order

The principal justification for moratoria lay not in economic theory, but in *the preservation of social order*. Widespread foreclosure, imprisonment for debt, and forced land transfers threatened

to dissolve the agrarian base of the Republic and radicalize political conflict.¹²³ Suspension of enforcement reduced the tempo of dispossession, dampened panic, and signaled that law remained responsive to reality rather than indifferent to it.¹²⁴

Far from eroding confidence, well-calibrated moratoria often *stabilized* expectations. Creditors retained their claims; debtors retained their livelihoods; courts retained legitimacy.¹²⁵ By slowing enforcement, legislatures prevented the judiciary from becoming an accelerant of instability and preserved space for monetary and fiscal reconstitution.¹²⁶ The alternative—unrelenting enforcement amid scarcity—risked provoking resistance, extra-legal action, and challenges to the authority of law itself.¹²⁷

The Founding generation understood that constitutional order depends not on mechanical rigor, but on the capacity to allocate loss without destroying consent.¹²⁸ Moratoria exemplified this principle. They did not deny obligation; they *protected the conditions under which obligation could meaningfully persist*.¹²⁹ In doing so, they illustrated a broader constitutional insight: discretion, when bounded and publicly accountable, is not a defect of law but a prerequisite of its endurance.¹³⁰

§III.C. Shays' Rebellion Reframed

Shays' Rebellion has often been characterized as a populist uprising against lawful authority—a rural revolt driven by debtor resentment and hostility to property rights.¹³¹ This interpretation, while politically convenient, obscures the deeper constitutional significance of the episode. Properly understood, the unrest in western Massachusetts was not a rejection of law, but a *signal that law had lost its capacity to coordinate obligation under monetary scarcity*. It was not ideology that failed first. It was *structure*.

A. Not Populism, but Systemic Stress Disclosure

The participants in Shays' Rebellion did not seek to abolish courts, cancel debts, or overthrow republican government.¹³² Their immediate actions—court closures, resistance to foreclosures, and demands for relief—were targeted responses to enforcement mechanisms that continued to operate as if monetary capacity remained intact.¹³³ The rebellion arose where debt saturation, liquidity collapse, and rigid enforcement converged most acutely.¹³⁴

Seen through this lens, the unrest functioned as a *stress disclosure event*. It revealed what had already become true but was not yet institutionally acknowledged: the monetary system could no longer support universal enforcement without producing social rupture.¹³⁵ Courts were enforcing valid obligations that could not be performed, and citizens responded not by repudiating law, but by attempting—however imperfectly—to halt its misapplication.¹³⁶

Importantly, resistance clustered around procedure rather than principle. Protesters obstructed judicial process temporarily; they did not propose alternative legal orders.¹³⁷ This behavior is inconsistent with revolutionary populism. It is consistent with a polity signaling that *the system's operating assumptions had diverged from economic reality*.¹³⁸

B. Elite Recognition of Structural Failure

Contrary to later narratives, leading figures of the Founding generation did not dismiss Shays' Rebellion as mere lawlessness. They recognized it as evidence of systemic inadequacy.¹³⁹ Correspondence from the period reflects deep concern not about democracy itself, but about the Confederation's inability to manage monetary stress without courting disorder.¹⁴⁰

George Washington described the situation as a warning that the existing system was "little short of anarchy," not because citizens demanded relief, but because the government lacked the authority to provide it lawfully.¹⁴¹ Alexander Hamilton viewed the unrest as confirmation that public credit, private obligation, and enforcement could not be reconciled without a consolidated monetary authority.¹⁴² James Madison similarly identified the events as symptoms of a deeper constitutional defect rather than as isolated excesses.¹⁴³

This elite recognition is critical. The response to Shays' Rebellion was not repression alone, but *constitutional reconsideration*. The episode accelerated consensus that monetary authority could not remain dispersed, optional, or dependent on state discretion.¹⁴⁴ A republic that relied on force to resolve monetary impossibility had already failed in its design.¹⁴⁵

Reframed in this way, Shays' Rebellion marks not a populist threat to constitutional order, but a *revealing failure mode* within it. It demonstrated that without an authority capable of restoring settlement capacity, enforcing obligations becomes indistinguishable from coercion, and law forfeits legitimacy precisely when it is most needed.¹⁴⁶ The lesson drawn was enduring: stability requires not the suppression of stress signals, but institutions capable of responding to them.

§III.D. Early Legal Consciousness of the Problem

By the late 1780s, a growing legal and political consciousness had emerged among American leaders: the disturbances of the post-war period were not isolated anomalies, but manifestations of a recurring structural defect.¹⁴⁷ The concern was not limited to any single episode of unrest. Rather, it centered on the prospect of *cyclical instability*—a pattern in which monetary scarcity produced debt saturation, strict enforcement triggered resistance, and repression temporarily restored order without addressing underlying causes.¹⁴⁸

A. Fear of Cycles of Rebellion

Leading figures increasingly feared that without structural correction, the Republic would oscillate between enforcement and unrest.¹⁴⁹ Suppressing one rebellion did not resolve the conditions that produced it; it merely deferred the next confrontation. This recognition marked a shift in legal understanding. Disorder was no longer viewed solely as a failure of obedience, but as evidence that the system itself was repeatedly generating conditions incompatible with compliance.¹⁵⁰

Correspondence and public writings from the period reflect this anxiety. Rebellion was understood not as a singular breakdown, but as a **predictable response to monetary impossibility combined with uncompromising legal enforcement**.¹⁵¹ Absent an authority capable of restoring settlement capacity, each episode of unrest threatened to harden political divisions and normalize coercion as a substitute for governance.¹⁵²

This fear carried constitutional weight. A republic that relies on episodic force to manage economic stress risks converting temporary emergency into *permanent posture*.¹⁵³ The Founding generation recognized that repeated cycles of rebellion and repression would erode consent, weaken legitimacy, and ultimately undermine the rule of law they sought to preserve.¹⁵⁴

B. Recognition That Courts Alone Were Insufficient

Alongside this concern emerged a second, related insight: *courts alone could not resolve systemic monetary failure*.¹⁵⁵ Judicial institutions are designed to adjudicate discrete disputes, not to recalibrate settlement capacity *across an entire economy*. When money disappeared and obligations became collectively impossible to perform, courts were left enforcing contracts that no longer aligned with economic reality.¹⁵⁶

This mismatch placed the judiciary in an untenable position. By enforcing obligations without regard to systemic capacity, courts risked becoming instruments of dispossession rather than arbiters of justice.¹⁵⁷ Conversely, declining to enforce contracts threatened legal certainty and public credit. The problem, therefore, was not judicial error, but *institutional limitation*.¹⁵⁸

Recognition of this limitation sharpened calls for reform. Legal order required more than impartial adjudication; it required **institutions capable of mediating loss, suspending enforcement when necessary, and restoring the conditions under which adjudication could function meaningfully**.¹⁵⁹ This insight would become central to the constitutional settlement that followed. Monetary authority was *reconceived* not as an intrusion on law, but as its necessary complement.¹⁶⁰

By the time delegates gathered to reconsider the nation's governing framework, these lessons were well understood. The problem confronting the Republic was not excessive leniency or insufficient discipline. It was the absence of a constitutional mechanism capable of preventing legal enforcement from becoming a recurring catalyst for instability.¹⁶¹ The solution would not be found in courts alone, but in the creation of an authority empowered to restore monetary coherence before disorder became inevitable.¹⁶²

§IV. Money as an Office, Not an Object

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

The monetary failures of the post-Revolutionary period forced the Founding generation to confront a question more fundamental than scarcity, inflation, or exchange efficiency. The question was not what carried value, but what ended obligation. Experience had revealed that the stability of a republic does not turn on the movement of goods or promises through markets, but on the capacity of law to bring disputes, debts, and claims to final and uniform resolution. Where that capacity failed, social order fractured—even when value itself remained abundant.

This insight marked a decisive break from earlier assumptions. Under the Articles of Confederation, money was often treated as a thing: a commodity, a note, or a promise whose usefulness depended on material qualities or market confidence. Yet repeated crises demonstrated that objects, however valuable, could not perform the central legal task required of money in a constitutional order. They could circulate without closing disputes, exchange hands without terminating claims, and accumulate without restoring legitimacy. The result was not flexibility, but fragmentation.

Section IV articulates the Founding generation’s response to that failure. It reconstructs the logic by which they rejected purely asset-based conceptions of money and instead constitutionalized monetary authority as a public office—an institutional function exercised through law, constrained by accountability, and oriented toward finality rather than preference. This was not an abstract philosophical move. It was a structural correction born of lived experience: colonial paper collapses, commodity reversion, debt saturation, judicial overreach, and popular unrest all traced back to a single defect—the absence of an authority capable of compelling acceptance and ending obligation uniformly under stress.

The sections that follow proceed deliberately. First, they demonstrate why objects—commodities, specie, and negotiable claims—are categorically incapable of terminating obligation, even when they retain value. They show how consent-based acceptance, case-by-case valuation, and physical constraints transform settlement into negotiation precisely when law requires closure. Second, they revisit colonial paper failures to clarify that over-issuance was not the root cause; institutional absence was. Paper failed not because it circulated too freely, but because no administering office existed to convert circulation into finality. Third, they draw explicit lessons from commodity rigidity, showing how asset-based settlement reintroduces power asymmetry, geographic fragmentation, and coercive enforcement—the very conditions republican government was designed to prevent.

From these failures, the Founders derived a durable constitutional principle: value may support money, but it *cannot* substitute for authority. Assets can anchor confidence, but they cannot compel acceptance, standardize discharge, or restore closure when arithmetic renders universal repayment impossible. *Only an office—acting through law on behalf of the polity—can perform those functions.* Money, properly understood, is therefore not property to be possessed, but a public responsibility to be exercised.

This reframing is essential to understanding Article I. The Constitution's monetary powers were not granted to perfect objects or optimize markets. They were vested to preserve legal uniformity, mediate loss under stress, and prevent regression into the coercive, fragmented settlement regimes that had nearly undone the Republic at its founding. Section IV makes this logic explicit. It clarifies why monetary authority must remain institutional, national, and accountable—and why treating money as an object, however modern its form, risks repeating failures the Constitution was designed to foreclose.

§IV.A. Why the Founders Rejected Purely Asset-Based Money

§IV.A.1. The Failure of Objects to Terminate Obligation

The Founding generation's rejection of purely asset-based money rested on a clear functional distinction: **objects can carry value, but they cannot terminate obligation**. Commodities, specie, and paper promises each possess attributes that make them useful within systems of exchange. They can store value over time, facilitate transactions between willing parties, and signal scarcity within markets.¹⁶³ These characteristics, however, are insufficient to resolve the central legal task of money: the uniform and final discharge of debt under law.

Objects operate by *consent*. Their acceptance depends on preference, valuation, and circumstance. Even where widely used, they remain subject to negotiation at the moment of settlement.¹⁶⁴ This feature is tolerable in periods of stability, when liquidity is abundant and parties can substitute among instruments without consequence. Under stress, however, object-based settlement reveals its limits. Scarcity transforms choice into leverage, and valuation becomes a site of contest rather than coordination.¹⁶⁵

What objects cannot do is compel acceptance. A creditor may refuse a commodity, discount specie, or dispute the adequacy of a paper promise.¹⁶⁶ Without legal tender authority, no object can force closure across heterogeneous preferences. As a result, obligations persist even after value has changed hands, inviting further enforcement and dispute.¹⁶⁷

By contrast, modern legal tender instruments explicitly announce their terminating function. United States currency bears the notation "This note is legal tender for all debts, public and private," reflecting the same principle the Founders ultimately embraced: settlement finality arises from lawful authority, not from the intrinsic qualities of the object tendered.¹⁶⁷

Nor can objects *standardize discharge*. Settlement in commodities or specie requires case-by-case valuation, adjustment for quality, transport, perishability, and local conditions.¹⁶⁸ These variables multiply precisely when uniformity is most needed.

Critically, commodities must be *converted into a sovereign monetary amount* before obligations can be discharged. Cattle, grain, or other goods do not terminate debt as objects; they must first be exchanged for recognized currency, which alone provides a uniform unit of account capable of legal closure. This conversion requirement—*universally understood in practice*—underscores that commodities participate in valuation, not settlement.

Courts are therefore left adjudicating relative worth rather than terminating obligation, and similarly situated debtors experience divergent outcomes.¹⁶⁹ The law's coordinating function dissolves into localized bargaining.

Most critically, objects cannot *close obligations uniformly under stress*. When monetary capacity collapses, objects redistribute loss rather than resolve it. One party's successful settlement depends on another's exclusion from scarce means.¹⁷⁰ Enforcement becomes a contest over

assets, not a process of lawful closure. In such conditions, circulation continues, but obligation does not end.¹⁷¹

The Founders drew a sharp conclusion from this experience: **value can move without ending debt; money must end debt.**¹⁷² This principle explains why monetary authority could not be grounded in things alone. Only an institution—acting through law—could compel acceptance, standardize discharge, and restore finality when markets failed. Objects could support money, but they could not replace the office that gave money its terminating force.¹⁷³

§IV.A.2. Colonial Paper Failures Revisited

Colonial paper money did not fail merely because of over-issuance. That explanation, while common, mistakes a *symptom* for a *cause*. The deeper failure lay in *the absence of institutional authority capable of converting paper from a negotiable object into a terminating instrument of law.*¹⁷⁴ Without such authority, increased issuance amplified fragility rather than restoring settlement capacity.

First, colonial paper lacked *enforceable fiscal backing*. Issuance was not anchored to reliable taxation or coercive revenue authority, leaving redemption contingent on future political cooperation rather than present legal obligation.¹⁷⁵ Paper circulated, but its credibility eroded as holders recognized that repayment depended on fragmented and often unwilling jurisdictions.¹⁷⁶ In the absence of enforceable backing, paper promised value without guaranteeing closure.

Second, colonial paper lacked *uniform tender authority*. Acceptance varied by colony, statute, and circumstance.¹⁷⁷ Creditors could refuse paper, discount it, or demand alternative settlement, converting what was intended as a monetary instrument into a subject of negotiation at the moment of discharge.¹⁷⁸ Without compulsory acceptance, paper could not standardize settlement across heterogeneous preferences or jurisdictions.

Third, colonial paper lacked *institutional credibility to compel settlement*. There existed no centralized office empowered to enforce acceptance, mediate disputes, or suspend enforcement when performance became systemically unattainable.¹⁷⁹ Courts were left to adjudicate paper claims as private instruments rather than as sovereign mandates, and enforcement fragmented accordingly.¹⁸⁰ Paper thus behaved not as money, but as another contested claim within an already saturated system.

The result was predictable. Paper became an *object of negotiation*, not an *instrument of closure*.¹⁸¹ Its value fluctuated with confidence, locality, and bargaining power, precisely when uniformity was most needed. Rather than terminating obligation, paper prolonged it—inviting further enforcement, discounting, and dispute.¹⁸²

The lesson drawn by the Founding generation was structural rather than ideological. **A monetary instrument without an administering office becomes another contested claim—not a terminator of claims.**¹⁸³ Paper could function as money only if embedded within an institution capable of compelling acceptance, standardizing discharge, and restoring finality under stress.

Absent that office, even well-intentioned instruments collapsed into the very disorder they were meant to resolve.¹⁸⁴

§IV.A.3. Commodity Rigidity Lessons

Commodities retain value under conditions of scarcity. Their usefulness, durability, or extractive limits often make them reliable stores of worth when monetary instruments fail.¹⁸⁵ This characteristic, however, does not qualify commodities to serve as money. Value retention and obligation termination are distinct functions, and the former cannot substitute for the latter without reintroducing instability.

Unlike money, commodities *require valuation at the point of exchange*. Quality, quantity, grade, and local market conditions must be assessed anew each time settlement is attempted.¹⁸⁶ These valuation requirements intensify precisely when stress is greatest, transforming discharge into negotiation and converting courts into arbiters of relative worth rather than terminators of obligation.¹⁸⁷

Commodities also *impose transport and perishability costs*. Grain spoils, livestock requires maintenance, metals demand secure conveyance.¹⁸⁸ These frictions are not incidental; they shape who can tender payment and on what terms. Settlement thus becomes contingent on proximity, storage capacity, and physical control rather than on uniform legal entitlement.¹⁸⁹

Most critically, commodity settlement *invites creditor preference*. In the absence of compulsory tender, creditors may demand particular goods, refuse others, or insist on discounts reflecting private advantage.¹⁹⁰ This discretion reopens obligations that law is meant to close. What appears as payment becomes a bargaining position, and the debt persists in altered form.¹⁹¹

When commodities are used to satisfy debt, *obligation does not end; it is renegotiated in physical form*.¹⁹² The medium of contest shifts from currency to goods, but the contest remains. Enforcement follows assets rather than extinguishing claims, and settlement becomes episodic and uneven.¹⁹³

This dynamic reintroduces three conditions the Founding generation sought to avoid. First, *power asymmetry* returns, as those with durable or transportable commodities gain leverage over those without.¹⁹⁴ Second, *geographic fragmentation* deepens, as local conditions dictate settlement outcomes and undermine national uniformity.¹⁹⁵ Third, *coercive enforcement* replaces lawful closure, as disputes over valuation and possession invite seizure rather than settlement.¹⁹⁶

The lesson is structural and enduring. Commodities can support a monetary system by anchoring value, but they cannot replace the institutional mechanisms that end obligation. Where commodities are elevated into settlement instruments, rigidity masquerades as discipline, and scarcity is mistaken for order.¹⁹⁷ Only an administering office—acting through law—can transform value into finality.¹⁹⁸

The Founding generation did not merely seek a more efficient medium of exchange. They sought to prevent regression into three conditions that experience had shown to be fatal to republican order. First, the return of power asymmetry, as control over durable or transportable assets conferred coercive leverage. Second, geographic fragmentation, as local valuation and settlement practices dissolved national uniformity. Third, the substitution of coercive enforcement for lawful closure, as disputes over adequacy invited seizure rather than settlement.

These were not hypothetical risks. They were the lived consequences of treating objects as money. The constitutional response was therefore not to perfect the object, but to create an office—one capable of compelling acceptance, standardizing discharge, and restoring finality under stress. Only such an office could convert value into closure, and exchange into obligation ended.

Callout: Constitutional Clarification on Monetary Authority

This paper advances a structural clarification of Article I, Section 8 of the United States Constitution.

The Founding generation’s rejection of commodity-based settlement was not merely economic, but constitutional. When objects—whether commodities, specie, or negotiable claims—are permitted to function as money, three conditions inevitably reemerge: power asymmetry rooted in asset control, geographic fragmentation driven by local valuation, and coercive enforcement replacing lawful closure. These were the precise failures the Constitution sought to prevent.

Article I’s monetary powers are therefore best understood not as a grant to perfect objects, but as an authorization to vest an *office* capable of compelling acceptance, standardizing discharge, and terminating obligation under stress. Assets may support monetary systems, but only an administering authority acting through law can convert value into finality.

This articulation clarifies that Congress’s power to coin money and regulate its value is a power to preserve legal uniformity and social continuity—not merely to manage circulation. In doing so, it explains why monetary authority must remain institutional, accountable, and distinct from property, even when property retains value.

§IV.A.4. Doctrinal Clarification: Asset-Based vs. Asset-Backed Money

A recurring source of confusion in both historical and modern monetary discourse is the failure to distinguish between *asset-based* and *asset-backed* money. The distinction is not semantic. It is constitutional. The Founding generation encountered both models in practice and rejected the former while deliberately constructing the latter.¹⁹⁹

A. Asset-Based Money (Rejected)

Asset-based money derives its claimed settlement authority from the *object itself*. Gold, silver, land, commodities, or paper claims are treated as money on the theory that intrinsic or market-recognized value is sufficient to end obligation.²⁰⁰ Under this model, the object's capacity to store or signal value is presumed to substitute for legal finality.

This conception fails for a precise reason: it *treats value-holding as equivalent to obligation-ending*.²⁰¹ As the post-Revolutionary experience demonstrated, assets can circulate, appreciate, or retain scarcity while debts remain unresolved. When settlement authority is grounded in objects, payment becomes a matter of adequacy rather than closure.²⁰² Obligations persist after exchange, inviting further dispute, renegotiation, or enforcement.

Asset-based systems therefore collapse money into property.²⁰³ They transform monetary settlement into a contest over assets, subject to valuation disputes, creditor discretion, and local advantage. The law's coordinating role erodes as courts are drawn into adjudicating relative worth rather than recognizing termination.²⁰⁴ This was the condition the Founders experienced—and rejected—as incompatible with republican stability.

B. Asset-Backed Money (Accepted)

Asset-backed money operates on a fundamentally different principle. Settlement authority derives not from the asset, but from a *sovereign office acting through law*.²⁰⁵ Assets support the system by anchoring confidence, disciplining issuance, or stabilizing public credit, but they do not themselves perform the terminating function.

In an asset-backed system, money discharges obligation because it is *recognized as legal tender*, not because of its material composition or exchange value.²⁰⁶ Uniform discharge is preserved across jurisdictions and preferences because acceptance is compelled by law rather than negotiated by power.²⁰⁷ Assets remain on the balance sheet; authority remains in the institution.

This distinction explains why the Constitution authorizes Congress to “coin Money” and to regulate its value, while simultaneously prohibiting states from treating assets or paper as tender in their own right.²⁰⁸ The aim was not to eliminate backing, but to prevent backing from supplanting authority.

C. Founding Insight

The Founding generation drew a clear lesson from failure: **assets may support money, but they must never replace the office that gives money finality.**²⁰⁹ When objects are permitted to stand in for authority, monetary systems revert to fragmentation, coercion, and enforcement without closure. When authority is properly vested, assets can stabilize confidence without destabilizing law.

This doctrinal distinction—between asset-based money that negotiates obligation and asset-backed money that terminates it—anchors the Constitution’s monetary design. It preserves uniformity under stress, prevents regression into property contests, and ensures that money functions not merely as a bearer of value, but as an instrument of lawful finality.²¹⁰

§IV.A.5. Why an Office Was Constitutionally Necessary

The cumulative failures of object-based monetary systems led the Founding generation to a clear constitutional conclusion: **only an office can perform the functions required of money under stress**. Objects may circulate, retain value, or signal scarcity, but they cannot compel acceptance, suspend enforcement when settlement becomes impossible, or restore legal closure after crisis.²¹¹ These are not attributes of things. They are attributes of authority.

First, *only an office can compel acceptance*. Compulsion is not a market outcome; it is a legal one. Uniform discharge requires that creditors be bound to accept a designated instrument in satisfaction of obligation, regardless of preference or bargaining position.²¹² Without such authority, settlement fragments into negotiation, and obligation persists after exchange. The Founders understood that acceptance must be mandated by law, not induced by value alone.²¹³

Second, *only an office can suspend enforcement when settlement becomes systemically impossible*. Courts adjudicate disputes, but they do not recalibrate economic capacity. When money collapses and obligations exceed available means, rigid enforcement converts legal order into coercion.²¹⁴ An administering authority, by contrast, can lawfully pause enforcement, allocate time, and preserve the legitimacy of obligation without extinguishing it.²¹⁵ This discretionary capacity—*bounded and accountable*—was essential to preventing cycles of rebellion and repression.²¹⁶

Third, *only an office can restore closure after crisis*. Monetary recovery requires more than renewed circulation; it requires the reestablishment of finality.²¹⁷ Debts must once again be terminable in a uniform manner, such that exchange results in closure rather than renewed dispute. Objects cannot perform this function, because they remain subject to valuation and contest. An office can, because it speaks with legal finality on behalf of the polity.²¹⁸

For these reasons, the Founders treated money not as a thing to be possessed, but as *a public function to be exercised*.²¹⁹ Monetary authority was vested in institutions capable of acting through law, constrained by constitutional limits, and accountable to the people.²²⁰ This design preserved flexibility without arbitrariness, authority without absolutism, and discretion without abandonment of principle.

In this light, Article I’s monetary powers are best understood as duties rather than privileges. They obligate Congress to maintain the conditions under which obligations can be lawfully ended, even when markets fail and losses must be mediated.²²¹ Money, so conceived, is not property. It is governance. And governance, in a republic, must operate through offices answerable to law rather than through objects governed by power.²²²

§IV.B. Monetary Authority in Article I

Article I of the United States Constitution does not vest monetary authority in a single clause. Instead, it distributes that authority across a coordinated set of powers designed to operate together as a unified settlement architecture. This dispersion was intentional. The Founders understood that money, when treated as an office rather than an object, must be supported by multiple, interlocking authorities capable of restoring closure under stress.²²³ Taxation, borrowing, bankruptcy, and coinage were therefore framed not as isolated competencies, but as complementary instruments of monetary governance.

A. The Taxing Power

The power to “lay and collect Taxes, Duties, Imposts and Excises” is foundational to monetary authority.²²⁴ Taxation provides the enforceable fiscal backing that object-based systems lacked under the Articles of Confederation. Without compulsory revenue, monetary issuance devolves into unsecured promise, and settlement authority erodes.²²⁵

Taxing power performs a stabilizing function beyond revenue generation. It anchors public credit by ensuring that obligations incurred by the government are supported by a predictable, enforceable claim on national resources.²²⁶ This fiscal backstop allows money to function as an instrument of closure rather than speculation. When obligations can be satisfied through lawful collection, money retains legitimacy even under stress.²²⁷

The Founders’ insistence on national taxing authority thus reflects a recognition that monetary authority *cannot exist independently of fiscal capacity*. An office charged with ending obligations must possess the means to honor its own.²²⁸

B. The Borrowing Power

Closely related is the power to “borrow Money on the credit of the United States.”²²⁹ Borrowing authority enables temporal coordination between present obligation and future capacity. It allows the monetary system to absorb shocks without forcing immediate liquidation or coercive enforcement.²³⁰

Borrowing power is not merely a financing tool; it is a settlement mechanism. By consolidating obligations at the national level, Congress can transform fragmented private distress into manageable public debt.²³¹ This capacity was absent under the Confederation, where borrowing occurred without unified credit or enforcement, rendering promises unstable and markets distrustful.²³²

When exercised through an accountable office, borrowing preserves continuity by spreading loss over time rather than concentrating it through immediate enforcement.²³³ In this way, borrowing authority complements taxing power as part of a single monetary architecture aimed at preserving closure without collapse.²³⁴

C. The Bankruptcy Power

The power to establish “uniform Laws on the subject of Bankruptcies throughout the United States” addresses a distinct but essential dimension of monetary authority: the lawful termination of unpayable obligations.²³⁵ Bankruptcy is not an exception to monetary order; it is a core component of it.

Uniform bankruptcy law prevents localized coercion by replacing asset seizure and imprisonment with structured discharge.²³⁶ It recognizes that when obligations exceed capacity, enforcement must yield to resolution. Without such a mechanism, debt persists indefinitely, and money loses its capacity to end claims.²³⁷

By vesting bankruptcy power at the national level, the Constitution ensures that discharge operates uniformly across jurisdictions, preserving equality before the law.²³⁸ This power directly reinforces the conception of money as an office: both function to restore closure when arithmetic renders universal repayment impossible.²³⁹

D. Coinage and Regulation of Value

Finally, Article I grants Congress the power “to coin Money” and “regulate the Value thereof.”²⁴⁰ This authority does not merely concern minting or pricing. It defines who may declare what counts as settlement.

Regulation of value ensures that money serves as a stable unit of account across time and space.²⁴¹ Coinage authority centralizes the designation of lawful tender, preventing states or private actors from substituting objects or promises as settlement instruments.²⁴² Together, these powers establish money as a legal fact rather than a market preference.

Crucially, regulation of value is inseparable from the other Article I monetary powers. Without taxing authority, value regulation lacks backing. Without borrowing authority, it lacks elasticity. Without bankruptcy authority, it lacks closure.²⁴³ The Founders therefore constructed monetary authority as a system, *not a symbol*.

Synthesis

Read together, Article I’s monetary powers reveal a coherent constitutional design. Congress was not empowered simply to issue currency, but to administer a monetary order capable of compelling acceptance, mediating loss, and terminating obligation under stress.²⁴⁴ This authority was vested in offices, constrained by law, and accountable to the people precisely because money, properly understood, is a function of governance.

In this sense, Article I does not treat money as an object to be perfected, but as a responsibility to be exercised. Its provisions ensure that value can be converted into finality, exchange into closure, and economic disruption into lawful resolution—without reverting to coercion or fragmentation.²⁴⁵

§IV.C. The Prohibition of State Tender as Structural Safeguard

Article I, Section 10 of the United States Constitution provides that “No State shall...coin Money; emit Bills of Credit; [or] make any Thing but gold and silver Coin a Tender in Payment of Debts.”²⁴⁶ This prohibition is often read narrowly—as a historical reaction to colonial paper money or as a constraint on inflationary abuse. Properly understood, however, it functions as a *structural safeguard* essential to the Constitution’s monetary design. Its purpose is not merely to restrain state experimentation, but to prevent the reemergence of fragmented settlement authority that would undermine national closure.

A. Preventing Fragmented Tender Regimes

The Founders’ experience under the Articles of Confederation demonstrated that decentralized tender authority produces not diversity, but disintegration. States adopted divergent tender laws, valuation standards, and debtor-relief measures, creating a patchwork of settlement rules incompatible with interstate commerce and legal predictability.²⁴⁷ Obligations enforceable in one jurisdiction could be discharged—or indefinitely deferred—in another. Contracts lost uniform meaning, and money ceased to function as a national instrument of closure.²⁴⁸

The prohibition on state tender directly addresses this failure. By denying states the power to designate settlement instruments, the Constitution ensures that *obligation-ending authority remains unitary*.²⁴⁹ This prevents local political pressure, creditor–debtor asymmetry, or regional scarcity from redefining money piecemeal. Uniformity, *not experimentation*, is the constitutional objective at the point of discharge.²⁵⁰

B. Separating Fiscal Autonomy from Monetary Authority

Importantly, the prohibition does not eliminate state fiscal autonomy. States retain the power to tax, spend, and incur debt.²⁵¹ What they may not do is alter the terms under which obligations are lawfully ended. This distinction reflects a foundational insight: **fiscal diversity is compatible with monetary unity; tender diversity is not**.²⁵²

Allowing states to declare tender would collapse this distinction. It would permit local governments to convert fiscal pressure into monetary redefinition, effectively shifting loss through settlement manipulation rather than through accountable political processes.²⁵³ The Constitution forecloses this pathway. Monetary authority is centralized precisely because it governs closure, not preference.²⁵⁴

C. Guarding Against Coercion and Localized Power

State tender authority also risks reintroducing coercion under the guise of relief. When states may designate tender, creditors face pressure to accept instruments discounted by local conditions, while debtors face unequal outcomes depending on geography.²⁵⁵ Such regimes

reward proximity, political influence, and asset control rather than legal equality. The resulting settlement outcomes resemble property contests rather than lawful resolution.²⁵⁶

By prohibiting state tender, the Constitution protects creditors and debtors alike from localized coercion.²⁵⁷ It ensures that settlement occurs through nationally authorized instruments whose acceptance does not depend on bargaining power or regional scarcity. In this way, the prohibition preserves not only economic coordination, but *equal protection in the termination of obligation*.²⁵⁸

D. Reinforcing Money as an Office, Not an Object

The tender prohibition reinforces the paper's central thesis: *money is an office, not an object*. If states could declare objects—commodities, paper claims, or substitutes—as tender, monetary authority would devolve into competing assertions of value-holding rather than a single assertion of closure.²⁵⁹ The Constitution prevents this by separating valuation from settlement authority and vesting the latter exclusively at the national level.²⁶⁰

This structural choice ensures that assets may circulate, markets may innovate, and states may govern locally—without allowing objects to masquerade as money.²⁶¹ The prohibition thus operates not as a restriction on economic freedom, but as a *precondition for monetary coherence*.

E. Constitutional Continuity Under Stress

Finally, the prohibition on state tender preserves constitutional continuity in moments of crisis. Periods of economic stress reliably generate pressure to redefine settlement instruments quickly and locally. History demonstrates that such responses, however well-intentioned, do not restore stability. They accelerate fragmentation, erode legitimacy, and transform monetary stress into constitutional disorder.²⁶² By foreclosing unilateral tender redefinition, the Constitution channels crisis response through national institutions capable of acting with uniformity, accountability, and foresight.²⁶³

This safeguard addresses a risk that is not confined to the eighteenth century. The Framers understood that when settlement authority is dispersed among the states, national law becomes unevenly enforceable and accountability fractures along jurisdictional lines. The same structural failure would arise today were individual states to authorize decentralized or non-uniform instruments as money or legal tender. Fragmented settlement authority produces fragmented obligation, and fragmented obligation produces fragmented enforcement.

Such authorization would not merely complicate monetary coordination. It would impair the federal government's ability to enforce law across state boundaries by disrupting uniform discharge, obscuring attribution, and converting national obligations into jurisdiction-dependent outcomes. Settlement would cease to operate as a single legal act and instead become contingent on geography, local approval, or technological form. The result would be enforcement asymmetry—precisely the condition the Constitution was designed to prevent.

Article I, Section 10 therefore operates as a forward-looking safeguard rather than a historical artifact. It ensures that no state action—regardless of innovation, motive, or technology—can reintroduce the fragmentation and legal incoherence that characterized the Confederation era. Monetary authority remains national not to suppress experimentation, but to preserve the conditions under which law itself remains enforceable.

In this sense, Article I, Section 10 is not ancillary to monetary authority; it is constitutive of it. The prohibition ensures that when obligations must be ended under stress, they are ended once, uniformly, and lawfully.²⁶⁴ Without this safeguard, the Republic would risk recurring cycles of fragmentation, coercion, and contestation—the very conditions the Founding generation resolved never to constitutionalize.²⁶⁵

§V. Legal Tender as Constitutional Closure

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

Legal tender occupies a singular position within the constitutional architecture of the United States, yet it is routinely misunderstood. Modern discourse often reduces legal tender to a synonym for currency, a medium of exchange, or a technical attribute of monetary policy. This reduction obscures its essential constitutional function. Legal tender is not defined by how it facilitates transactions, but by how it ends them. Its purpose is not circulation, but closure.²⁶⁶

The Founding generation confronted a recurring and destabilizing problem: value could move through markets while legal obligation remained unresolved. Goods changed hands, labor was rendered, and instruments circulated, yet debts persisted, courts remained engaged, and enforcement continued unabated. Exchange alone did not restore order. What was missing was a lawful mechanism capable of terminating obligation uniformly and conclusively. Legal tender emerged as the constitutional response to this failure.

This chapter therefore reframes legal tender as a *structural device of constitutional closure*. Its function is to convert payment into finality, dispute into resolution, and systemic stress into legal continuity. Where tender operates with compulsory effect, obligations end as a matter of law rather than preference, bargaining power, or valuation dispute. Where it does not, settlement fragments into negotiation, enforcement hardens into coercion, and law loses its coordinating authority.

The analysis that follows develops this understanding across three interrelated dimensions. First, legal tender serves as the mechanism of *final settlement*, ensuring that liability ends when the law recognizes it as satisfied. Second, it produces *legal peace*, not by eliminating disagreement over value, but by foreclosing residual claims that would otherwise perpetuate conflict. Third, it enables *systemic closure*, allowing monetary systems to reset under stress without devolving into fragmentation or force.

Read together, these functions explain why legal tender was treated by the Founders not as an economic convenience, but as a constitutional necessity. Money, in their design, was incomplete unless it could end obligation under crisis conditions. Legal tender thus stands not merely as an instrument of exchange, but as a safeguard of legal continuity—preserving order when markets alone cannot.

Section V proceeds from this premise. It recovers the Founding-era logic of tender as the lawful end-point of obligation, examines its relationship to contract enforcement and public necessity, and situates tender as an element of institutional memory designed to prevent the repetition of constitutional failure. In doing so, it clarifies a principle central to the Republic's monetary design: **money exists not simply to move value, but to end claims—once, uniformly, and lawfully.**

§V.A. Tender Beyond Medium of Exchange

Modern discourse often treats legal tender as a synonym for currency or medium of exchange. This reduction obscures its constitutional function. Legal tender is not defined by its role in facilitating transactions, but by its capacity to *end* them. Its purpose is not circulation, but closure.²⁶⁶

A. Final Settlement

The primary function of legal tender is the final settlement of obligation. A debt is not extinguished when value merely changes hands; it is extinguished when the law recognizes the obligation as satisfied and forecloses further claim.²⁶⁷ Legal tender performs this terminating function by compelling acceptance in satisfaction of debt, regardless of private preference, valuation dispute, or bargaining position.

This feature distinguishes money from all other exchange instruments. Commodities, private promises, or negotiable assets may circulate indefinitely without ever resolving obligation. Even widely accepted instruments remain contingent at the point of discharge.²⁶⁸ Legal tender alone converts payment into finality by binding creditor and debtor alike to a uniform rule of satisfaction.

The Founding generation understood this distinction through experience. Under conditions of scarcity, enforcement without terminating authority did not restore order; it prolonged conflict.²⁶⁹ Legal tender was therefore conceived not as a convenience, but as a *constitutional necessity*—an instrument capable of ending claims decisively when markets could not.²⁷⁰

B. Legal Peace

Because legal tender terminates obligation uniformly, it produces legal peace. Peace here is not the absence of disagreement, but the absence of enforceable residual claim. Once a debt is discharged by lawful tender, the dispute ends—not because parties agree, but because the law has spoken conclusively.²⁷¹

This function is critical to social stability. Where obligations linger after exchange, enforcement persists. Courts remain engaged, assets remain contested, and parties remain adversarial.²⁷² Legal tender interrupts this cycle by closing the legal chapter on the obligation, allowing economic and civic life to proceed without recurring coercion.

In this sense, legal tender operates as a public pacification mechanism. It prevents disputes over adequacy, valuation, or form from metastasizing into systemic conflict.²⁷³ The Founders recognized that a republic cannot rely indefinitely on negotiation or force to resolve monetary stress. Peace requires finality, and finality requires tender with compulsory effect.²⁷⁴

C. Systemic Closure

Beyond individual debts, legal tender enables systemic closure. Monetary systems periodically encounter conditions in which aggregate obligations exceed available means of performance. In such moments, the question is not how value circulates, but how the system resets without disintegrating.²⁷⁵

Legal tender provides the mechanism by which closure can occur at scale. By standardizing discharge across jurisdictions and preferences, it allows obligations to be ended in a coordinated manner rather than redistributed through asset seizure or localized coercion.²⁷⁶ This capacity is essential to preventing fragmentation during crisis.

Without such closure, monetary systems regress. Exchange continues, but obligation persists. Enforcement accelerates, legitimacy erodes, and law becomes an instrument of extraction rather than resolution.²⁷⁷ Legal tender interrupts this trajectory by restoring the law's coordinating function precisely when arithmetic renders private settlement impossible.²⁷⁸

The constitutional insight is enduring: money is not complete until it can end obligation under stress. Legal tender is therefore not merely a medium of exchange, but a structural device for preserving legal continuity, social peace, and systemic coherence.²⁷⁹ It transforms value into finality and dispute into resolution—functions *no object, market, or preference* can perform alone.

§V.B. Founding-Era Tender Logic

The Founding generation's understanding of legal tender rested on a principle far more precise than modern shorthand suggests. Tender was not conceived primarily as a medium of exchange or a convenience for trade. It was understood as the *lawful end-point of obligation*—the moment at which a debt ceased to exist as a legal claim.²⁸⁰ Exchange could occur without tender; value could move without closure. Tender, by contrast, terminated liability.

This distinction emerged directly from Revolutionary experience. In the absence of a recognized tender, obligations lingered even after goods, labor, or paper had changed hands.²⁸¹ Creditors retained legal claims, courts retained jurisdiction, and enforcement remained available. Settlement without tender was therefore provisional rather than final. The Founders recognized that without a designated instrument capable of compelling acceptance, obligation would persist indefinitely, transforming exchange into a continuing site of contest.²⁸²

Tender logic thus reflected a juridical insight rather than an economic abstraction. A valid tender did not require agreement; it required authority. Once law designated an instrument as sufficient to discharge debt, acceptance was no longer a matter of preference, valuation, or bargaining power.²⁸³ The creditor's claim ended by operation of law, not by satisfaction of subjective worth. This was the decisive function that commodities, specie, and negotiable promises could not perform on their own.²⁸⁴

Founding-era debates consistently reflected this separation between *value* and *settlement*. Value was understood to fluctuate with scarcity, confidence, and circumstance. Settlement, however, demanded uniformity.²⁸⁵ A republic could tolerate variation in prices, but it could not tolerate variation in whether debts were ended. Without a common legal end-point, obligation fragmented across jurisdictions, and enforcement devolved into localized coercion rather than lawful closure.²⁸⁶

This logic explains why the Constitution treats tender as a legal fact rather than a market outcome. Congress was empowered to establish monetary instruments precisely because settlement could not be left to decentralized valuation or private agreement.²⁸⁷ The power to “coin Money” and regulate its value was inseparable from the power to define what ends obligation. Absent that authority, courts would be forced to adjudicate adequacy rather than recognize discharge, and similarly situated parties would receive divergent treatment under law.²⁸⁸

Early American legal practice confirms this understanding. Where tender was recognized, litigation ended. Where it was absent or contested, disputes multiplied.²⁸⁹ Tender therefore functioned as a mechanism of *legal peace*—not because it eliminated disagreement over value, but because it foreclosed disagreement over closure.²⁹⁰

The Founding generation’s tender logic can thus be summarized succinctly: **value governs exchange; tender governs settlement**. Confusing the two collapses money into property and law into bargaining. Distinguishing them allows obligation to end without violence, coercion, or fragmentation.²⁹¹ *This distinction was not incidental to constitutional design*. It was central to the creation of a monetary system capable of preserving both economic activity and legal continuity under stress.²⁹²

In this light, legal tender emerges not as an economic artifact, but as a constitutional instrument. Its purpose is not to move value efficiently, but to end claims definitively. *If tender does not end liability, it ceases to be tender in any constitutional sense*. The existence of legal tender is justified only because liability must end somewhere, *uniformly and lawfully*, so that obligation does not persist beyond exchange. Where that terminating function is preserved, markets may fluctuate without threatening order. Where it is lost, circulation may continue—but obligation does not end, settlement fragments into negotiation, and law itself begins to fracture.²⁹³

§V.C. Contracts, Public Necessity, and Limits

The constitutional function of legal tender cannot be understood in isolation from the law of contracts. Contracts are the primary mechanism through which obligations are created, allocated, and enforced within a legal order. Yet the Founding generation understood that contractual obligation, while essential to economic coordination, is not absolute. It exists within a constitutional framework that must preserve social continuity when private enforcement becomes systemically destructive.²⁹⁴

This insight gives rise to an enduring tension: *the obligation to honor contracts versus the necessity of accommodating circumstances in which universal performance becomes impossible*. The Constitution does not resolve this tension by abolishing contracts, nor by permitting their wholesale repudiation. Instead, it channels accommodation through public authority, preserving contractual legitimacy precisely by preventing its collapse under stress.²⁹⁵

A. The Contracts Clause Tension

Article I, Section 10 prohibits states from passing laws that impair the obligation of contracts.²⁹⁶ This provision reflects a deliberate reaction against arbitrary debtor relief and retrospective interference that characterized certain colonial and post-Revolutionary practices. The Clause protects reliance, stabilizes expectations, and anchors private ordering within a predictable legal environment.²⁹⁷

Yet the Clause was never understood as mandating mechanical enforcement regardless of consequence. Early constitutional interpretation recognized that the obligation of contracts presupposes a functioning monetary and legal environment in which performance is possible.²⁹⁸ When that presupposition fails—when money cannot circulate and settlement instruments cannot terminate liability—strict enforcement ceases to preserve order and instead accelerates instability.²⁹⁹

The Supreme Court’s early jurisprudence reflects this understanding. While guarding against legislative repudiation, the Court consistently distinguished between impairment of obligation and lawful modification of remedy under conditions of public necessity.³⁰⁰ The obligation endures; enforcement adapts. This distinction preserves the moral and legal force of contracts while acknowledging that performance mechanisms must remain responsive to systemic reality.³⁰¹

B. Why Accommodation Preserves Contract Legitimacy Long-Term

Accommodation is often mischaracterized as weakness—a retreat from discipline or an erosion of contractual sanctity. The Founding generation understood the opposite. *Lawful accommodation preserves contract legitimacy by preventing enforcement from becoming indistinguishable from coercion*.³⁰² Where contracts are enforced under conditions of monetary impossibility, the resulting defaults do not affirm obligation; they delegitimize it.³⁰³

Temporary suspension, restructuring, or mediated settlement does not deny the validity of contracts. Rather, it affirms that contracts exist within a constitutional order committed to continuity rather than liquidation.³⁰⁴ By allowing time for monetary capacity to be restored, accommodation preserves the expectation that obligations will ultimately be honored—uniformly and lawfully—rather than selectively enforced through asset seizure and imprisonment.³⁰⁵

This principle explains why the Constitution locates monetary authority at the national level. Only a sovereign office, acting through law, can calibrate enforcement to capacity without

extinguishing obligation.³⁰⁶ Courts alone can adjudicate disputes, but they cannot restore the conditions under which adjudication yields closure rather than cascading default.³⁰⁷ Accommodation thus functions not as an exception to contract law, but as its *constitutional safeguard*.³⁰⁸

The Founding-era lesson is therefore structural. Contracts retain legitimacy over time not because they are enforced at all costs, but because the system preserves the conditions under which enforcement remains meaningful.³⁰⁹ Where money can terminate liability, contracts coordinate behavior. Where it cannot, accommodation preserves the possibility that coordination will resume.³¹⁰

In this sense, public necessity does not stand opposed to contract obligation. *It sustains it*. By ensuring that liability can end lawfully rather than endlessly compound, the constitutional system protects contracts from becoming instruments of systemic fracture.³¹¹ This balance—between obligation and accommodation—anchors the Republic’s commitment to both private ordering and public continuity, ensuring that neither survives at the expense of the other.³¹²

§V.D. Tender, Crisis, and Institutional Memory

Constitutional systems do not merely allocate power; they *preserve memory*. They encode lessons learned under stress into durable institutional form, ensuring that failures need not be relearned through repetition. Legal tender occupies this precise role within the American constitutional order. It is not a peacetime convenience, but a mechanism forged from crisis—designed to prevent the recurrence of conditions that once threatened the Republic’s continuity.³¹³

The Founding generation’s experience with monetary collapse, debt saturation, and coercive enforcement produced a clear institutional insight: absent a uniform mechanism for terminating obligation, crises recur with increasing severity.³¹⁴ Barter reversion, fragmented tender regimes, and rigid enforcement did not resolve instability; they *entrenched* it. Legal tender emerged as the constitutional response to this pattern—a means of encoding the memory of failure into law so that future generations would not be forced to rediscover it through disorder.³¹⁵

A. Tender as Institutional Memory

Legal tender functions as a standing instruction to the legal system: when obligation must end, it must end *uniformly, conclusively, and lawfully*.³¹⁶ This instruction remains operative regardless of market innovation, asset preference, or technological change. It reflects not confidence in any particular object, but distrust of unmanaged discretion under stress.³¹⁷

Institutional memory differs from policy preference. Preferences shift with circumstance; memory persists as structure. The Constitution does not merely authorize Congress to create money—it constrains how monetary closure may occur, foreclosing fragmented or object-substituted settlement that experience proved destabilizing.³¹⁸ In this sense, legal tender is a remembered solution, *not an abstract principle*.

This memory is preserved precisely because it is embedded in authority rather than in form. Objects *evolve*. Instruments *change*. Markets *innovate*. But the *function of tender*—to end liability and restore legal peace—*remains constant*.³¹⁹ By vesting this function in an office rather than in assets, the Constitution ensures that institutional memory survives shifts in economic fashion without requiring reinterpretation at every crisis.³²⁰

B. Crisis as the Moment of Revelation

Institutional memory is revealed, not in calm, but under pressure. It is during crises that the necessity of legal tender becomes most apparent. When liquidity contracts, preferences diverge, and assets concentrate, the temptation to redefine settlement instruments locally or opportunistically intensifies.³²¹ History demonstrates that such *redefinitions accelerate* fragmentation and convert monetary stress into *constitutional disorder*.³²²

Legal tender interrupts this cycle. It provides a fixed point of closure when markets cannot coordinate and when enforcement alone would magnify harm.³²³ In doing so, it preserves the legitimacy of law by ensuring that obligations terminate through authority rather than through force.³²⁴ Crisis thus confirms tender's purpose: not to optimize exchange, but to prevent regression into coercive settlement regimes.

This function explains why legal tender cannot be optional or emergent. If acceptance depended on preference, it would fail precisely when preference diverges.³²⁵ Tender must therefore operate independently of confidence, popularity, or intrinsic value. Its authority derives from law's need for closure, not from markets' willingness to comply.³²⁶

C. Preservation of Legal Peace Across Generations

The ultimate function of institutional memory is continuity. Legal tender preserves peace not by eliminating loss, but by channeling it into lawful resolution.³²⁷ Loss allocation is unavoidable during crises; disorder is not. By ensuring that liability ends in a single, uniform act, tender prevents the accumulation of unresolved claims that fuel resentment, resistance, and rebellion.³²⁸

This preservation operates across generations. Each crisis tests whether the constitutional memory embedded in tender remains intact. Where it does, markets may suffer disruption without threatening legitimacy. Where it does not, obligation persists without closure, and enforcement hardens into domination.³²⁹ The Founding generation understood that memory forgotten is failure repeated. Tender was their means of remembrance.

Accordingly, legal tender stands as a constitutional artifact of experience. It reflects the accumulated knowledge that money must do more than move value—it *must end claims*.³³⁰ By embedding this function in institutional authority, the Constitution ensures that the Republic does not rely on rediscovery through hardship, but on continuity through law.

In this sense, tender is not merely an instrument of settlement. It is an instrument of *constitutional memory*—preserving the lessons of collapse so that future crises may be resolved without repeating the path to fracture.³³¹

§V.E. Modern Misclassification of Tender and Money

Modern monetary discourse increasingly collapses the distinction between money and tender, treating both as interchangeable descriptors for instruments that facilitate exchange. This misclassification obscures the constitutional function of money and invites conceptual error at precisely the point where clarity is most required. Money is not defined by how it moves value; legal tender is defined by how it ends liability. Conflating the two dissolves closure into circulation and authority into preference.³³²

This confusion is most visible in contemporary claims that scarcity, decentralization, or market adoption alone suffice to establish monetary legitimacy. *Such criteria describe attributes of exchange instruments, not of constitutional settlement.*³³³ Scarcity may discipline supply, decentralization may distribute control, and adoption may signal utility—but none of these attributes can terminate obligation under law. When instruments are evaluated solely on their capacity to circulate, their inability to close claims is mistaken for neutrality rather than recognized as structural insufficiency.³³⁴

The Founding generation confronted analogous errors. Commodities, private paper, and negotiable promises all moved value efficiently within local markets. None, however, could compel acceptance, standardize discharge, or foreclose further claim across jurisdictions.³³⁵ The constitutional response was not to perfect the object, but to vest an office capable of converting value into finality. Legal tender emerged not as a superior medium of exchange, but as a superior mechanism of closure.³³⁶

Modern misclassification repeats the pre-constitutional mistake in updated form. Instruments that function adequately during equilibrium are presumed sufficient for crisis. *Yet history demonstrates that crisis is the proper test of monetary legitimacy.*³³⁷ When liquidity contracts and preferences diverge, instruments lacking compulsory effect fail precisely when obligation must end. Exchange may continue, but liability persists. Enforcement hardens, disputes multiply, and law is reduced to asset adjudication rather than claim termination.³³⁸

This error carries institutional consequences. When money is treated as property rather than authority, settlement becomes contingent on possession, geography, or bargaining power.³³⁹ Obligations fragment across jurisdictions, and enforcement asymmetries reemerge—the very conditions Article I was designed to prevent. Legal tender exists to foreclose this regression by ensuring that settlement remains a single legal act rather than a negotiated outcome.³⁴⁰

The constitutional standard is therefore exacting but clear. If an instrument cannot terminate liability uniformly and lawfully, it is not money in the constitutional sense, regardless of how efficiently it transmits value.³⁴¹ Legal tender is justified only because obligation must end

somewhere—once, conclusively, and under authority recognized by law. Where that function is absent, the concept of money dissolves into perpetual exchange without closure.³⁴²

This distinction is not antiquarian. It is *protective*. By preserving the separation between value movement and obligation termination, the Constitution ensures that innovation in exchange does not compromise uniformity in settlement.³⁴³ Markets may evolve; instruments may change. But the authority to end claims must remain institutional, accountable, and singular.³⁴⁴

In closing, the misclassification of tender and money is not a theoretical oversight—it is a *constitutional risk*. Treating circulation as sufficient for settlement revives the failures of the Confederation era under modern guise. The Founding generation resolved this problem by constitutional design, not by technological optimism. Legal tender endures as their solution: a mechanism of closure that transforms exchange into finality and preserves legal order when markets alone cannot.³⁴⁵

§VI. Elasticity, Rules, and Institutional Memory

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

Modern debates about monetary governance often miscast elasticity as a modern indulgence—an innovation born of twentieth-century finance rather than a constitutional necessity rooted in founding-era experience. This framing reverses history. Elasticity was not conceived to displace the Founders’ monetary logic, but to preserve it. It emerged as the institutional solution to defects the Founding generation identified with precision but lacked the durable mechanisms to correct.

The Founders understood that rigid monetary systems fail not in theory, but in crisis. When money cannot expand, contract, or mediate loss under stress, enforcement ceases to coordinate obligation and instead becomes coercive. Settlement gives way to seizure. Scarcity, absent lawful accommodation, does not discipline markets—it renders universal performance arithmetically impossible. The danger was never excess discretion alone, but the absence of an institution capable of acting when settlement capacity collapsed.

Elasticity, properly understood, is therefore not permissiveness. It is continuity. It is the lawful capacity to adjust monetary conditions so that obligation may still end uniformly, even when markets freeze and private coordination fails. The ability to stabilize credit during panic, to expand liquidity during contraction, and to prevent enforcement cascades is not a departure from constitutional principles—it is their operational fulfillment. Without elasticity, legal tender loses its terminating force precisely when it is most needed.

Early American experience foreshadowed this necessity. Wartime finance, post-war depression, and debt saturation revealed that static monetary instruments—whether commodity-bound or mechanically constrained—could not preserve closure across cycles. The Constitution responded by vesting monetary authority in an office rather than an object, but the Founders lacked a permanent institutional mechanism to exercise that authority across time. Central banking would later supply that mechanism, not by inventing new constitutional powers, but by giving durable effect to existing ones.

Central banks operationalize Article I’s monetary architecture by providing elasticity within law. Through lender-of-last-resort functions, reserve management, and coordinated credit stabilization, they preserve the conditions under which tender can terminate obligation uniformly. These functions do not alter the meaning of money; they protect it. By preventing liquidity collapse from cascading into enforcement crises, elasticity shields contracts and courts alike from roles they were never designed to perform.

Crucially, elasticity does not eliminate discipline. It relocates discipline from mechanical scarcity to institutional accountability. Decisions to expand or contract are bounded by statute, transparency requirements, and public oversight. This structure reflects a foundational insight emphasized throughout this paper: discretion is not the enemy of law when it is constrained, reviewable, and exercised to preserve closure rather than evade it.

Seen in this light, central banking represents continuity, not innovation. It is institutional memory—the lessons of earlier failure translated into enduring governance. Elasticity is not designed to optimize markets in equilibrium, but to preserve legal order under stress. It ensures that when obligations threaten to outpace settlement capacity, the Republic need not choose between repudiation and repression.

The constitutional logic is therefore direct. Elasticity exists so that money may continue to perform its defining function: the lawful termination of obligation across cycles of expansion and contraction. Without elasticity, monetary systems regress toward the rigidities the Founding generation labored to escape. With it, monetary authority remains faithful to its original purpose—continuity through law rather than stability through force.

This chapter examines how that constitutional insight was preserved, bounded, and institutionalized—first through central banking as a repository of institutional memory, and then through the limits, restraints, and non-delegation principles that ensure elasticity remains a safeguard rather than a threat to republican governance.

§VI.A. Elasticity as Continuity, Not Innovation

Modern discussions of central banking often frame elasticity as a twentieth-century innovation—a departure from the Founding era rather than its fulfillment. This framing is historically and constitutionally mistaken. Elasticity was not introduced to replace the Founders’ monetary logic, but to *complete* it. Central banking emerged as the institutional solution to defects the Founding generation identified but could not yet fully operationalize.³⁴⁶

The Founders understood with precision what rigid monetary systems could not do. Under conditions of stress, money that could not expand, contract, or mediate loss transformed enforcement into coercion and settlement into seizure.³⁴⁷ Scarcity, when unaccompanied by lawful accommodation, did not discipline markets; it rendered universal performance arithmetically impossible.³⁴⁸ The problem was not excess discretion, but the absence of an institution capable of acting when settlement capacity collapsed.³⁴⁹

Elasticity, properly understood, is *not* monetary permissiveness. It is the lawful capacity to adjust settlement conditions so that obligation can still end without fragmenting the legal order.³⁵⁰ The ability to expand liquidity during contraction, to stabilize credit during panic, and to act as a backstop when private markets freeze is not a deviation from constitutional principles. It is their operational expression.³⁵¹ Without elasticity, legal tender loses its terminating force precisely when it is most needed.³⁵²

Early American experience foreshadowed this necessity. Wartime finance, post-war depression, and debt saturation revealed that static monetary instruments—whether commodity-bound or mechanically constrained—could not sustain closure across cycles.³⁵³ The Founders responded by vesting monetary authority in an office, but they lacked a durable institutional mechanism to exercise that authority across time.³⁵⁴ Central banking would later supply that mechanism, not by inventing new constitutional powers, but by giving practical effect to existing ones.³⁵⁵

Central banks operationalize Article I’s monetary architecture by providing elasticity within law. Through lender-of-last-resort functions, reserve management, and coordinated credit stabilization, they preserve the conditions under which tender can terminate obligation uniformly.³⁵⁶ These functions do not alter the meaning of money; they *preserve* it. By preventing liquidity collapse from cascading into enforcement crises, elasticity protects both contracts and courts from being forced into roles they cannot constitutionally perform.³⁵⁷

Importantly, elasticity does not negate discipline. It relocates discipline from mechanical scarcity to institutional accountability.³⁵⁸ Decisions about expansion or contraction are bounded by statutory mandates, transparency requirements, and public oversight.³⁵⁹ This structure reflects a Founding-era insight repeatedly emphasized throughout this paper: discretion is not the enemy of law when it is constrained, reviewable, and exercised to preserve closure rather than avoid it.³⁶⁰

Seen in this light, central banking is best understood as continuity, not innovation. It is the institutional memory of earlier failure translated into durable governance.³⁶¹ The elasticity it

provides is not designed to optimize markets in equilibrium, but to preserve legal order under stress.³⁶² It ensures that when obligations threaten to outpace settlement capacity, the Republic need not choose between repudiation and repression.³⁶³

The constitutional logic is therefore direct. Elasticity exists so that money may continue to perform its defining function: the lawful termination of obligation across cycles of expansion and contraction.³⁶⁴ Without elasticity, monetary systems regress toward the rigidities the Founding generation labored to escape. With it, monetary authority remains faithful to its original purpose — continuity through law rather than stability through force.³⁶⁵

The Founding generation observed firsthand that a decentralized monetary architecture, absent an administering authority, lacked the elasticity required to preserve settlement, legitimacy, and continuity under stress. The Constitution's monetary design was therefore not an innovation of convenience, but a corrective born of experience. It embedded elasticity within accountable authority so that obligation could be ended uniformly even when markets failed.

Any modern proposal that disperses monetary authority while presuming elastic response confronts the same structural limitation the Framers identified: without a central office empowered by law, elasticity cannot be guaranteed, obligation cannot be reliably terminated, and constitutional continuity cannot be preserved.

True decentralization, as embodied in the constitutional architecture of the United States, has historically served a stabilizing function precisely because centralized authority remains bounded, accountable, and answerable to law. Decentralization in this sense is not the absence of authority, but the disciplined distribution of it.

This analysis does not critique decentralized technology as such. It observes instead that decentralization untethered from accountable institutional authority is constitutionally unanchored. Where no office exists to provide elasticity, enforce closure, or answer for systemic failure, decentralization ceases to stabilize and instead reproduces the very rigidity and fragmentation the Founding generation resolved never to constitutionalize.

§VI.B. The Federal Reserve as Institutional Memory

The establishment of the Federal Reserve System represents not a departure from founding-era monetary logic, but its institutional maturation. The Federal Reserve was designed to preserve, in permanent form, the lessons learned from repeated monetary collapse, credit contraction, and enforcement failure across the nineteenth and early twentieth centuries.³⁶⁶ Its purpose was not to optimize markets in ordinary times, but to retain the Republic's capacity to terminate obligation, preserve settlement, and maintain legal continuity under stress.³⁶⁷

In this sense, the Federal Reserve functions as institutional memory. It encodes historical experience into durable authority, ensuring that monetary responses need not be rediscovered through crisis, improvisation, or coercion.³⁶⁸ What had previously been learned episodically —

through panics, suspensions, and disorder—was instead embedded within a standing office capable of acting with foresight, restraint, and accountability.³⁶⁹

A. Temporal Limits

A defining feature of institutional memory is respect for time. The Federal Reserve was structured to operate across economic cycles rather than electoral ones, preserving continuity where political systems naturally compress horizons.³⁷⁰ Monetary instability does not arise instantaneously; it *accumulates*. Likewise, restoration of settlement capacity requires temporal discretion—an ability to extend, suspend, or recalibrate without collapsing obligation into liquidation.³⁷¹

The Federal Reserve’s independence within defined legal bounds reflects this temporal necessity. By insulating certain monetary functions from immediate political pressure, the system preserves the capacity to act when delay would destroy legitimacy and when immediacy would accelerate collapse.³⁷² This design does not remove accountability; it repositions it over a longer arc, consistent with the duration of monetary consequences themselves.³⁷³

Temporal authority thus operates as a constitutional safeguard. It ensures that money retains the elasticity required to terminate obligation lawfully across cycles of expansion and contraction, rather than enforcing rigid settlement at moments when performance is systemically unattainable.³⁷⁴

B. Transparency

Institutional memory cannot function without visibility. The Federal Reserve’s authority is therefore paired with structured transparency—not as a concession to markets, but as a requirement of constitutional legitimacy.³⁷⁵ Monetary authority that operates in opacity risks degenerating into discretion without memory, power without record, and intervention without accountability.³⁷⁶

Transparency within the Federal Reserve system serves two functions. First, it preserves public trust by making the exercise of extraordinary authority intelligible and reviewable.³⁷⁷ Second, it ensures that future policymakers inherit not merely tools, but documented reasoning—why actions were taken, under what constraints, and with what acknowledged risks.³⁷⁸ In this way, transparency transmits institutional memory forward rather than allowing it to dissipate between crises.³⁷⁹

This structure reflects a constitutional insight: legitimacy is not preserved by secrecy during stress, but by intelligible authority exercised within known bounds.³⁸⁰ The Federal Reserve’s disclosures, reporting requirements, and audit mechanisms exist to prevent monetary authority from becoming episodic improvisation rather than continuous governance.³⁸¹

C. Institutional Accountability

Finally, institutional memory requires accountability—not to market approval, but to law. The Federal Reserve’s authority is not autonomous; it is delegated, bounded, and revisable by Congress.³⁸² This subordination ensures that elasticity does not become arbitrariness and that discretion does not detach from constitutional purpose.³⁸³

Accountability operates on multiple planes. Statutory mandates define permissible objectives. Oversight mechanisms ensure compliance. Historical record allows retrospective evaluation.³⁸⁴ Together, these constraints preserve the Federal Reserve’s role as a *steward of continuity* rather than an *independent source* of monetary sovereignty.³⁸⁵

Crucially, this structure reflects the same logic articulated throughout this paper: money is not property, and monetary authority is not ownership. It is a public function exercised on behalf of the Republic to preserve lawful closure under stress.³⁸⁶ The Federal Reserve does not replace constitutional monetary authority; it operationalizes it in durable form.³⁸⁷

Synthesis

Viewed in this light, the Federal Reserve is best understood not as a modern financial innovation, but as a constitutional memory device. It preserves the Founding generation’s core insight—that monetary systems fail not because value cannot circulate, but because obligation cannot end.³⁸⁸ By embedding elasticity, transparency, and accountability within an administering office, the Federal Reserve ensures that the Republic does not relearn old failures through new instruments.³⁸⁹

Institutional memory is not nostalgia. It is foresight stabilized by experience. The Federal Reserve exists so that continuity may be preserved without coercion, closure restored without collapse, and law maintained where markets alone would fracture.³⁹⁰ In this role, it stands not apart from constitutional design, but as one of its enduring expressions.

§VI.C. Limits, Restraint, and the Non-Delegation Boundary

Elasticity within a constitutional monetary system is not a license for discretion without boundary. From the Founding era forward, American monetary design has rested on a paired insight: *continuity requires elasticity, but legitimacy requires restraint*.³⁹¹ The Constitution therefore does not authorize elasticity as an unbounded managerial power. It embeds elasticity within a framework of law, delegation, and accountability designed to prevent monetary authority from collapsing into arbitrary governance.

A. Historical Safeguards Against Unbounded Monetary Power

The Founding generation was acutely aware that monetary authority, if unconstrained, could itself become a source of instability. Colonial experience with bills of credit and post-

Revolutionary abuses had demonstrated that discretionary issuance divorced from accountability eroded public trust, distorted obligation, and invited political manipulation.³⁹² The constitutional response was not to deny the necessity of elasticity, but to cabin it within enumerated powers and structural limits.

Article I vests monetary authority in Congress—not as a grant of technocratic discretion, but as a legislative responsibility subject to public accountability.³⁹³ The power to coin money, regulate its value, borrow on the credit of the United States, and establish uniform bankruptcy laws formed a coordinated system of authority bounded by law rather than expediency.³⁹⁴ Elasticity was thus made lawful by design: exercised through institutions, constrained by statute, and reviewable through constitutional processes.

This architecture reflects a deliberate rejection of two extremes. On one side lay rigid object-based systems incapable of absorbing shock. On the other lay discretionary issuance untethered from rule or consent.³⁹⁵ The Constitution rejects both. It authorizes adaptive response, but only through offices that operate within clearly defined legal boundaries.

B. The Non-Delegation Principle as Monetary Guardrail

The non-delegation doctrine supplies a critical boundary for monetary elasticity. While Congress may vest implementation authority in institutions, it may not abdicate its constitutional responsibility by transferring open-ended policy discretion without intelligible principle.³⁹⁶ This limitation is not an obstacle to effective monetary governance; it is the condition of its legitimacy.

Elasticity requires judgment, but judgment must be exercised pursuant to law.³⁹⁷ Institutions charged with monetary administration—whether treasury or central bank—derive their authority not from expertise alone, but from delegation bounded by statutory purpose, temporal scope, and oversight mechanisms.³⁹⁸ Without such limits, elasticity degenerates into discretionary power indistinguishable from political will.

Historical practice confirms this boundary. Even as monetary institutions evolved to address complexity and scale, Congress retained the authority to define objectives, constrain tools, and recalibrate mandates.³⁹⁹ The delegation of operational flexibility was accompanied by reporting requirements, sunset provisions, and mechanisms of institutional review—ensuring that elasticity remained a function of governance rather than denial of responsibility.⁴⁰⁰

C. Why Elasticity Requires Governance, Not Denial

Modern critiques of monetary authority often misidentify the source of instability. Discretion is treated as the problem, and rigidity as the solution. History demonstrates the inverse. Systems that deny the need for elasticity *do not* eliminate discretion; they *displace it* into enforcement, asset seizure, and political conflict.⁴⁰¹ Rigidity does not preserve neutrality. It converts economic stress into coercive resolution.

Elasticity, properly governed, prevents this displacement. It allows obligations to be terminated lawfully rather than violently, losses to be mediated rather than imposed, and continuity to be preserved without resort to force.⁴⁰² **Denial of elasticity does not constrain power; it transfers power to those best positioned to exploit scarcity.**

The constitutional design therefore insists on a more demanding discipline: elasticity exercised through accountable institutions, under law, and subject to correction.⁴⁰³ Governance—*not denial*—is what distinguishes constitutional elasticity from arbitrary control.

D. Restraint as Constitutional Fidelity

Restraint within monetary authority is not achieved by eliminating institutions, but by binding them. The Founders did not seek a money system that could not act; they sought one that could not act without reason, record, or responsibility.⁴⁰⁴ Elasticity without restraint produces abuse. Restraint without elasticity produces collapse. Constitutional fidelity lies in preserving both.

Accordingly, the non-delegation boundary does not weaken monetary continuity; it secures it. By ensuring that elasticity remains anchored to legislative purpose and public accountability, the Constitution transforms adaptive monetary authority from a threat into a safeguard.⁴⁰⁵

The lesson is *enduring*. A republic does not survive by denying the need for institutional response to crisis, nor by surrendering that response to unbounded discretion. It survives by governing elasticity—lawfully, transparently, and within limits remembered because they were once exceeded.⁴⁰⁶

§VI.D. Concluding Reflection — Elasticity as Constitutional Safeguard

Contemporary proposals to eliminate central monetary institutions are often advanced in the language of purity: freedom from political interference, restoration of market discipline, and resistance to inflationary excess. These concerns are not frivolous. They echo long-standing American instincts toward restraint, decentralization, and accountability. Yet history—and constitutional design—demonstrate that the absence of an administering authority does not produce neutrality. It produces rigidity.

The Founding generation encountered this reality directly. A decentralized monetary architecture without institutional elasticity did not preserve liberty; it transformed economic stress into legal breakdown, social unrest, and coercive enforcement. Obligations accumulated without a lawful means of closure, markets fractured along local lines, and enforcement substituted for settlement. The constitutional response was not the abandonment of markets, but the creation of offices capable of absorbing shock without dissolving order.

The role of a central monetary institution, properly understood, is therefore not to perfect markets or to override them, but to preserve the conditions under which markets remain governable under stress. Elasticity exists so that money may continue to terminate obligation

across cycles of expansion and contraction—without reverting to asset seizure, fragmented enforcement, or political rupture. To remove that function is not to liberate the system from distortion; it is to strip it of memory.

True decentralization, as embodied in the American constitutional architecture, has never meant the absence of authority. It has meant the disciplined distribution of authority within accountable institutions, constrained by law and responsive to failure. Where decentralization is severed from institutional responsibility, it ceases to stabilize and instead accelerates collapse. The lesson is *not* ideological. **It is structural.** Continuity requires memory, and memory requires institutions capable of acting when markets alone cannot.

§VII. Fiscal–Monetary Coordination and National Solvency

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

National solvency has never depended solely on the accumulation of revenue or the enforcement of obligation. From the Founding era forward, the American constitutional system has treated solvency as a function of coordination—among fiscal authority, monetary capacity, and legal legitimacy. The Republic learned early that obligations incurred in moments of necessity cannot be sustained through isolated action, whether fiscal or monetary, without degrading consent and continuity. Solvency, properly understood, is not the absence of debt, but the capacity to govern it lawfully over time.

The failures of the Articles of Confederation revealed a central structural truth: decentralized obligation without coordinating institutions produces fragmentation rather than discipline. Congress could authorize debt, states could attempt enforcement, and creditors could press claims—but no mechanism existed to absorb shock, align repayment with capacity, or preserve settlement uniformly. The result was not restraint, but coercion; not legitimacy, but instability. The Constitution corrected this failure not by consolidating power, but by distributing it across institutions designed to operate independently yet in concert.

This chapter examines how that constitutional architecture matured into a system of fiscal–monetary coordination capable of preserving national solvency without sacrificing separation of powers. Debt management, monetary accommodation, and legislative authorization are not competing domains; they are complementary functions within a single settlement ecosystem. When properly aligned, they allow obligations to be incurred deliberately, absorbed elastically, and resolved lawfully—without reverting to repudiation, repression, or fragmentation.

Section §VII.A traces this logic to its origin in war debt and early public credit, demonstrating that debt management emerged as a sovereign function inseparable from legitimacy. Section §VII.B examines how coordination among Congress, the Treasury, and monetary institutions operationalizes that function under modern conditions, including systemic crises. Section §VII.C situates contemporary institutions within a longer historical continuum, showing that institutional evolution reflects fidelity to constitutional purpose rather than departure from it.

Taken together, this chapter advances a single claim: national solvency is not preserved by isolation or purity, but by disciplined coordination under law. The Constitution does not demand that fiscal and monetary authorities operate independently of one another’s consequences. It demands that they operate within their respective bounds, with mutual awareness of settlement capacity, legitimacy, and continuity—so that obligation may be governed rather than merely enforced, and the Republic may endure without coercion.

§VII.A. Debt Management as a Sovereign Function

The management of public debt has never been a merely financial concern within the American constitutional order. From the Founding era forward, it has been understood as a sovereign function—an exercise of national responsibility inseparable from legitimacy, continuity, and constitutional authority. The Republic’s earliest encounters with debt demonstrated that obligations left unmanaged do not preserve discipline; they metastasize into coercion, fragmentation, and political instability.⁴⁰⁷

A. War Debt as Constitutional Instruction

The Revolutionary War produced obligations that far exceeded the young nation’s immediate capacity to pay. Soldiers, suppliers, foreign creditors, and domestic lenders all held claims against a government that lacked taxing authority, unified credit, or monetary elasticity under the Articles of Confederation.⁴⁰⁸ This condition revealed a foundational truth: debt incurred for national survival cannot be resolved through decentralized enforcement without endangering the legitimacy of the state itself.⁴⁰⁹

Early American leaders recognized that war debt posed a constitutional challenge, not simply a fiscal one. If obligations were enforced rigidly and locally, repayment would concentrate losses on those least able to bear them, dissolve public confidence, and fracture national unity.⁴¹⁰ Conversely, wholesale repudiation would destroy credit, invite foreign distrust, and delegitimize republican governance.⁴¹¹ The solution lay neither in denial nor in coercion, but in sovereign assumption and management.

Alexander Hamilton’s advocacy for the assumption and funding of war debt reflected this logic. By consolidating obligations at the national level, extending maturities, and anchoring repayment to enforceable taxation, the federal government transformed diffuse claims into a coherent public obligation.⁴¹² Debt became a matter of constitutional stewardship rather than private extraction. The aim was not expedient relief, but durable legitimacy.⁴¹³

B. Legitimacy Through Management, Not Enforcement

The Founding generation learned that enforcement alone cannot sustain legitimacy over time. Courts can compel payment, but they cannot coordinate loss across society without provoking resistance.⁴¹⁴ Where debt is enforced without regard to capacity, law ceases to terminate obligation and instead becomes an instrument of dispossession.⁴¹⁵ This dynamic undermines respect for both contracts and institutions, transforming lawful authority into perceived oppression.⁴¹⁶

Sovereign debt management offers a different path. By restructuring obligations, extending time horizons, and aligning repayment with national capacity, the state preserves the moral force of obligation while preventing enforcement from collapsing into coercion.⁴¹⁷ Legitimacy is

preserved not by demanding immediate performance at all costs, but by ensuring that obligations remain honorably payable within a functioning legal and monetary system.⁴¹⁸

This distinction is constitutional in nature. The power to borrow, tax, and regulate money was vested in Congress precisely because debt management could not be left to market fragmentation or judicial enforcement alone.⁴¹⁹ The Republic required an authority capable of absorbing shock, distributing burden, and maintaining settlement without sacrificing consent.⁴²⁰

C. Long-Term Continuity Versus Short-Term Extraction

Short-term enforcement maximizes recovery only in appearance. In practice, it accelerates asset concentration, erodes productive capacity, and seeds future instability.⁴²¹ The Founders understood that extracting immediate payment from a distressed economy undermines the very base from which future obligations must be satisfied.⁴²² Debt enforced without temporal accommodation sacrifices continuity for immediacy—and loses both.

By contrast, sovereign debt management prioritizes long-term continuity over short-term extraction. It treats repayment as a function of national endurance rather than episodic coercion.⁴²³ This approach preserves public credit not because debts are enforced instantly, but because they are managed transparently, lawfully, and in alignment with constitutional capacity.⁴²⁴

The lesson drawn from early American experience is enduring: legitimacy flows from the state's ability to honor obligations over time, not from its willingness to compel payment at any moment.⁴²⁵ Debt management is therefore not a concession to weakness, but an expression of sovereign strength. It affirms that the Republic governs obligations rather than being governed by them.⁴²⁶

In this sense, debt management stands alongside legal tender and elasticity as a core mechanism of constitutional closure. It ensures that obligations incurred in moments of necessity do not dissolve into disorder, nor calcify into permanent grievance.⁴²⁷ Through sovereign management, debt becomes not a threat to republican order, but a testament to its capacity for lawful endurance.⁴²⁸

This logic carries a contemporary implication. As the scale, duration, and interconnectedness of sovereign obligations expand, the Republic's financial infrastructure must retain the institutional capacity to manage debt across time rather than merely enforce it at moments of stress. The continued existence of a central administering authority—bounded by law, accountable to Congress, and capable of elastic response—reflects not historical inertia, but constitutional necessity. The precise form of that authority may evolve. Its function cannot be abandoned without forfeiting the very continuity the Constitution was designed to secure.

§VII.B. Treasury–Congress–Monetary Coordination

Separation Without Isolation

The Constitution deliberately separates fiscal authority, monetary authority, and legislative control. It does not, however, isolate them. The Founding generation understood that while powers must be divided to prevent abuse, they must also remain coordinated to preserve continuity.⁴²⁹ Separation without coordination produces paralysis; coordination without separation produces consolidation. The American monetary–fiscal architecture was designed to avoid both failures simultaneously.

Congress holds the power to tax, borrow, and authorize expenditure. The Treasury executes those authorities. Monetary institutions supply the elasticity necessary to ensure that fiscal action can be absorbed without converting obligation into coercion.⁴³⁰ Each institution operates within its own legal domain, yet none can fulfill its constitutional function in isolation. Debt management, revenue collection, and settlement closure form a single operational system, even when administered by distinct offices.⁴³¹

This structure reflects a central constitutional insight: fiscal authority creates obligation, but monetary accommodation determines whether that obligation can be ended lawfully under stress. Without coordination, enforcement accelerates when settlement capacity collapses, and legitimacy erodes precisely when authority is most needed.⁴³²

A. Separation as a Guardrail, Not a Barrier

The separation of powers was never intended to fracture sovereign function. Rather, it was designed to ensure that no single institution could unilaterally define obligation, enforce settlement, and control liquidity.⁴³³ Congress may authorize debt, but it cannot administer money directly. The Treasury may execute fiscal operations, but it cannot redefine tender. Monetary authorities may stabilize liquidity, but they cannot appropriate funds or extinguish public obligation.⁴³⁴

This separation preserves constitutional accountability. Each institution remains answerable for its domain, preventing fiscal expansion from becoming monetary arbitrariness or monetary accommodation from becoming fiscal usurpation.⁴³⁵ Yet the system presupposes coordination. Congress authorizes borrowing with the understanding that settlement mechanisms exist to absorb issuance. Treasury manages obligations with the expectation that markets will not be left to freeze into enforcement crises. Monetary authorities act to preserve closure, not to override legislative intent.⁴³⁶

The Founding-era failure under the Articles of Confederation illustrated the cost of isolation. States incurred obligations without a coordinating authority capable of sustaining settlement. Congress authorized debt without revenue or monetary capacity. Enforcement followed scarcity,

and legitimacy collapsed.⁴³⁷ The Constitution corrected this by distributing authority across institutions that could act independently—but not indifferently—to one another.⁴³⁸

B. Why Fiscal Authority Requires Monetary Accommodation

Fiscal authority without monetary accommodation does not produce discipline; it produces rigidity. When Congress authorizes expenditure or borrowing during crisis, obligations enter an economy whose capacity to settle may already be impaired.⁴³⁹ If monetary conditions are left static, the result is not neutral enforcement but forced liquidation—asset seizure, credit contraction, and cascading default.⁴⁴⁰

Monetary accommodation does not negate fiscal responsibility. *It preserves it.* By stabilizing liquidity, maintaining payment systems, and preventing disorderly contraction, monetary institutions allow fiscal obligations to be honored over time rather than repudiated through collapse.⁴⁴¹ Accommodation thus protects public credit by preventing short-term enforcement from destroying long-term legitimacy.⁴⁴²

This relationship was implicit in Hamilton’s public credit program and explicit in later constitutional practice. Debt could be incurred only if settlement mechanisms existed to support it. Where those mechanisms failed, coercion replaced governance.⁴⁴³ The decentralized structure of the Articles of Confederation made this necessity unmistakable, revealing that fiscal authority without an administering monetary framework cannot preserve closure under stress. The constitutional system therefore assumes that fiscal action during crisis will be met with lawful monetary elasticity—not as a bailout of policy, but as a safeguard of settlement itself.⁴⁴⁴

C. Modern Sovereign Debt Crises as Confirmation, Not Deviation

The financial crisis of 2008 provides a modern illustration of this constitutional logic. As private credit markets collapsed and system-wide obligations threatened to outpace settlement capacity, Congress authorized extraordinary fiscal interventions while monetary authorities acted to stabilize liquidity, credit transmission, and payment systems.⁴⁴⁵

These actions were not an abandonment of constitutional discipline. They were its execution. Without coordinated monetary accommodation, fiscal stimulus would have accelerated insolvency rather than restored capacity. Without fiscal authority, monetary stabilization would have lacked legitimacy and direction.⁴⁴⁶ The system functioned because separation remained intact while coordination intensified.⁴⁴⁷

The COVID-era fiscal response reaffirmed this principle under different conditions. Pandemic shock was not financial in origin, yet it produced immediate collapse in income, employment, and transactional capacity. Congress authorized massive fiscal outlays to preserve households and institutions. Monetary authorities acted to prevent liquidity collapse, stabilize Treasury markets, and ensure that fiscal obligations could be transmitted without destabilizing enforcement.⁴⁴⁸

In both cases, coordination preserved constitutional order. Obligations were created deliberately, absorbed elastically, and settled lawfully over time. The alternative—isolated fiscal action without monetary support, or isolated monetary action without fiscal legitimacy—would have produced fragmentation, coercion, and loss of consent.⁴⁴⁹

D. Modern Empirical Confirmation of Constitutional Coordination

The COVID-19 pandemic provides a contemporary confirmation of this constitutional architecture. Although direct economic relief to individuals was authorized by Congress and administered by the Department of the Treasury through the Internal Revenue Service, its execution depended upon an existing monetary infrastructure capable of absorbing, clearing, and settling obligations at national scale. The Federal Reserve did not issue stimulus payments; it functioned as fiscal agent, payment processor, liquidity backstop, and stabilizing authority—roles indispensable to lawful execution under modern conditions.⁴⁵⁰

As the government’s banker, the Federal Reserve System maintains the Treasury General Account, through which stimulus payments were disbursed. When Congress authorized Economic Impact Payments, the Federal Reserve cleared the corresponding electronic transfers and physical checks, ensuring uniform settlement across millions of accounts simultaneously. Without this centralized clearing infrastructure, the Treasury would lack the operational capacity to execute payments at speed, scale, and legal finality.⁴⁵¹

Equally critical was the Federal Reserve’s role in preserving liquidity during a systemic “dash for cash.” As households, firms, and financial institutions simultaneously sought liquid balances, the Federal Reserve supplied reserves in unlimited quantity to prevent payment failure, bank insolvency, and market seizure. This liquidity provision ensured that stimulus deposits credited to private accounts did not trigger destabilizing secondary effects within the banking system.⁴⁵² Absent such elasticity, fiscal relief would have collided with settlement constraints, converting assistance into disruption.

The Federal Reserve also supported fiscal execution indirectly through debt management. To fund pandemic relief, the Treasury issued unprecedented volumes of sovereign debt. Through large-scale asset purchases, the Federal Reserve absorbed this issuance, stabilizing interest rates and preserving the Treasury’s capacity to borrow without inducing a funding crisis.⁴⁵³ This coordination did not erase fiscal responsibility; it preserved it by ensuring that obligations incurred by law could be financed and settled without coercive enforcement or market collapse.

Emergency lending facilities established under Section 13(3) of the Federal Reserve Act further reinforced this coordination. Backstopped by CARES Act appropriations, these facilities supported credit flows to households, employers, and municipalities, preventing localized defaults from cascading into national insolvency.⁴⁵⁴ The Federal Reserve’s actions did not substitute for congressional judgment; they operationalized it by preserving the conditions under which lawful fiscal decisions could take effect.

The constitutional implication is not that relief *could not be authorized* without a central bank, but that under the current legal framework it *could not have been executed in its historical form*.

The Treasury lacks authority to create money independently; it may only tax or borrow. Only the Federal Reserve possesses the delegated capacity to expand balance sheets, clear national payments, and provide elastic settlement at scale.⁴⁵⁵ Any alternative would require a wholesale reconstruction of federal financial law, payment systems, and institutional accountability.

This episode therefore establishes a modern precedent consistent with Founding-era logic. Just as the failures of the Articles of Confederation revealed that decentralized fiscal action without monetary coordination produced fragmentation and coercion, the pandemic demonstrated that modern fiscal authority requires institutional monetary accommodation to preserve legality, legitimacy, and closure.⁴⁵⁶ The Federal Reserve's role was not discretionary rescue, but constitutional continuity in operation.

Seen in this light, the pandemic response affirms the paper's central claim: **sovereign obligations cannot be governed in isolation**. Fiscal authority without monetary accommodation collapses into enforcement crisis; monetary action without fiscal legitimacy collapses into technocracy. This coordination did not erode constitutional separation; it *exemplified it*. Each institution acted within its assigned authority, constrained by law and counterbalanced by the others. Fiscal action remained subject to legislative authorization, monetary accommodation remained bounded by statutory mandate, and execution remained accountable to public oversight. In this way, the pandemic response operated not as a consolidation of power, but as a living demonstration of checks and balances functioning under stress—preserving the Republic from both paralysis and tyranny.⁴⁵⁷

E. Coordination as Constitutional Fidelity

Treasury–Congress–monetary coordination is not a technocratic convenience layered onto constitutional design. It is a constitutional necessity intrinsic to the architecture itself. Separation of powers prevents abuse; coordination of function prevents collapse.⁴⁵⁸ The Founding generation deliberately rejected both consolidation and isolation. They constructed a system in which no single institution could command the full monetary lifecycle, yet none could operate as though settlement capacity, legitimacy, or continuity were someone else's concern.⁴⁵⁹

This balance was not accidental. Fiscal authority was vested in Congress, monetary administration was left to institutional development, and execution was divided across offices precisely so that obligation could be created, absorbed, and terminated without concentrating power or fragmenting responsibility.⁴⁶⁰ Coordination was the mechanism by which separation became sustainable rather than brittle. Without it, the Constitution's safeguards would harden into barriers incapable of responding to stress.

Modern crises have not altered this design. *They have confirmed it.* Where coordination has been preserved—where fiscal action has been paired with lawful monetary accommodation—the Republic has absorbed extraordinary shock without repudiation, repression, or constitutional rupture.⁴⁶¹ Where coordination is denied in the name of theoretical purity, rigidity returns, and with it enforcement divorced from closure—law applied without the means to resolve the obligations it enforces.⁴⁶²

The lesson is structural and enduring. Fiscal authority requires monetary accommodation not to evade responsibility, but to make responsibility survivable across time.⁴⁶³ The Constitution does not demand isolation among its institutions. It demands disciplined coordination so that obligation may be created deliberately, managed lawfully, and ended conclusively—without fracturing the legal order that obligation exists to serve.⁴⁶⁴

§VII.C. Historical Continuity into Modern Institutions

The architecture of fiscal–monetary coordination in the United States did not arise through rupture or reinvention. It emerged through continuity—by translating founding-era insights into durable institutional form as the scale, complexity, and temporal demands of governance expanded. The legitimacy of modern monetary institutions rests not on novelty, but on their fidelity to constitutional purpose across changing conditions.⁴⁶⁵

Early American statesmen confronted a recurring problem: public obligations could be incurred only if the Republic possessed the lawful capacity to manage them over time. War finance, assumption of state debts, and the restoration of public credit exposed a structural truth that transcended individual policy debates—sovereign legitimacy depends not on the immediacy of enforcement, but on the continuity of settlement.⁴⁶⁶ This insight did not belong to any single figure or faction. It arose from experience, constraint, and repeated confrontation with failure under decentralized and rigid arrangements.⁴⁶⁷

The contribution of the early fiscal system was therefore institutional, not personal. The foundational programs of public credit and debt consolidation articulated a principle that would outlast their architects: *obligations must be governed, not merely imposed*.⁴⁶⁸ Debt, once incurred for public necessity, required mechanisms capable of preserving confidence, maintaining liquidity, and sustaining lawful repayment without resort to coercion or repudiation.⁴⁶⁹ This logic formed the intellectual and constitutional bridge between early Treasury practice and later monetary institutions.

As the Republic matured, the limits of ad hoc coordination became evident. Financial panics, liquidity freezes, and regional banking collapses revealed that constitutional authority alone was insufficient without standing institutions capable of exercising it consistently across time.⁴⁷⁰ The evolution toward centralized monetary administration was not a departure from founding principles, but a response to their incomplete operationalization.⁴⁷¹ Where earlier systems relied on episodic intervention, later institutions embedded responsiveness into permanent governance.

Modern institutions therefore represent continuity in function, not expansion in kind. The Federal Reserve and related monetary mechanisms did not assume new constitutional powers; they internalized existing ones within structures designed to preserve memory, discipline discretion, and maintain settlement capacity under stress.⁴⁷² This evolution reflects constitutional maturation rather than ideological drift. Authority remained bounded, accountable, and subordinate to law, even as its execution became more technically capable.⁴⁷³

Importantly, this continuity resists hero-myth framing. No individual foresaw the full institutional form that monetary governance would later assume. What endured was not personality, but principle: *that national solvency requires coordination among fiscal authority, monetary elasticity, and legal closure.*⁴⁷⁴ The Constitution provided the framework; institutions supplied the endurance.⁴⁷⁵

Historical fidelity, in this sense, is measured not by adherence to original form, but by preservation of original function.⁴⁷⁶ A system that adapts its instruments while maintaining its constitutional purpose honors the Founding more faithfully than one that preserves structure while abandoning capacity. Modern fiscal–monetary coordination stands within this lineage—not as an innovation justified by necessity alone, but as an institutional expression of lessons learned and remembered.⁴⁷⁷

The Republic’s solvency has therefore been preserved not through static design, but through disciplined evolution. Each generation has inherited obligations it did not choose and institutions it did not design, yet remains bound by the same constitutional charge: to govern debt, preserve consent, and ensure that obligation can be ended lawfully over time.⁴⁷⁸ In fulfilling this charge, modern institutions do not stand apart from the Founding —*they carry it forward.*⁴⁷⁹

§VIII. Congressional Authority and Democratic Legibility

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

This chapter addresses a foundational but often underexamined dimension of constitutional governance: *democratic legibility*—the capacity of the public, through its representatives, to see, understand, contest, and ultimately authorize the exercise of sovereign authority over time. Within the American constitutional order, no domain tests this requirement more severely than monetary authority. Decisions affecting money determine not only economic outcomes, but the conditions under which obligation is created, sustained, adjusted, and lawfully terminated. For this reason, monetary authority has never been treated as a neutral technical function. It is a governing power inseparable from democratic consent and constitutional legitimacy.

Article I reflects this understanding by vesting monetary authority in Congress—not to require legislative micromanagement of monetary operations, but to ensure that authority over settlement, credit, and closure remains **traceable to democratic authorization, bounded by law, and subject to institutional oversight**. The constitutional design permits delegation, but it does not permit abdication. Where authority becomes untraceable to elected institutions, public accountability dissolves, and governance drifts from republican control toward technocratic autonomy. Democratic legibility is lost not when institutions act decisively, but when they act without a visible line of responsibility to the people.

This concern becomes most acute during periods of economic stress. Crises compress time horizons, magnify distributional consequences, and require extraordinary action affecting households, creditors, and the state itself. In such moments, legitimacy cannot rest on efficiency or outcome alone. It depends on public confidence that extraordinary authority is exercised lawfully, transparently, and in service of collective continuity rather than private or architectural advantage. Congressional accountability supplies that confidence by preserving legibility—by ensuring that power exercised under necessity remains intelligible, contestable, and corrigible once stability returns.

The Founding generation confronted the inverse condition under the Articles of Confederation. Diffuse authority, opaque fiscal practice, and the absence of accountable administering institutions eroded trust and encouraged defiance rather than compliance. The constitutional remedy was not to eliminate discretion, but to anchor it within institutions answerable to the people through law. Monetary authority was thus conceived not merely as an economic instrument, but as a mechanism of republican legitimacy—capable of acting under stress without severing its bond to consent.

This chapter develops that insight across modern institutional conditions. It argues that *public accountability is not a constraint on effective monetary governance; it is the condition of its durability*. Accountability disciplines elasticity, constrains permanence, and ensures that extraordinary measures remain provisional rather than silently sovereign. Where authority is transparent, reviewable, and bounded, democratic consent can survive even amid hardship.

Where authority becomes opaque or structurally insulated, success itself breeds suspicion, and legitimacy erodes despite favorable outcomes.

Accordingly, §VIII examines Congress's constitutional role in preserving democratic legibility across time. It proceeds in three steps. First, it establishes public accountability as a constitutional requirement of monetary authority (§VIII.B). Second, it introduces and formally defines *Architectural Sovereignty Contagion (ASC)* as a structural risk arising when sovereign-adjacent functions migrate into non-accountable architectures (§VIII.C). Third, it identifies transparency, corrigibility, and congressional stewardship as the safeguards that prevent democratic dilution even as institutions evolve (§VIII.D–F).

In this sense, congressional authority is not merely a source of permission. It is the mechanism by which democracy remains visible to itself. When monetary power is exercised at its most expansive, Article I accountability ensures that it remains subordinate to the constitutional order it exists to preserve.

§VIII.A. Why Monetary Authority Must Remain Publicly Accountable

Monetary authority occupies a unique position within the constitutional order because it governs the conditions under which obligation may be created, sustained, and lawfully terminated. For this reason, the Founding generation treated monetary power not as a technical function insulated from politics, but as a public trust inseparable from constitutional accountability. Article I vests monetary authority in Congress precisely because decisions affecting settlement, credit, and closure implicate the sovereignty of the people themselves.⁴⁸⁰

Accountability under Article I does not require that Congress directly administer money on a day-to-day basis. Rather, it requires that monetary authority remain traceable to democratic authorization, bounded by statute, and subject to institutional oversight.⁴⁸¹ Delegation is permissible; abdication is not. When monetary authority is exercised without a clear line of responsibility to elected institutions, it ceases to function as constitutional governance and instead drifts toward technocratic autonomy.⁴⁸²

This distinction is essential during periods of economic stress. Crises compress time horizons, magnify distributional consequences, and force rapid decisions affecting households, creditors, and the state itself.⁴⁸³ In such moments, the legitimacy of monetary action depends not on efficiency alone, but on public confidence that extraordinary authority is being exercised lawfully, transparently, and in service of collective continuity rather than private advantage.⁴⁸⁴ Accountability supplies that confidence.

The Founding generation understood that monetary discretion, if detached from public control, would provoke resistance rather than compliance. Under the Articles of Confederation, diffuse authority and opaque fiscal practices eroded trust and encouraged local defiance.⁴⁸⁵ The constitutional remedy was not to eliminate discretion, but to anchor it within institutions answerable to the people through law. Monetary authority was therefore conceived as an instrument of republican legitimacy, not merely an economic tool.⁴⁸⁶

Public accountability also serves a structural function. It constrains the use of elasticity to its constitutional purpose: preserving settlement and continuity rather than reallocating loss without consent.⁴⁸⁷ When monetary interventions are explained, reviewed, and bounded, they reinforce the understanding that extraordinary measures are temporary responses to extraordinary conditions—not permanent alterations of constitutional balance.⁴⁸⁸

Democratic legitimacy during crisis thus depends on more than outcome. It depends on process. A system that preserves employment or stabilizes markets while obscuring authority, rationale, or responsibility risks converting success into suspicion.⁴⁸⁹ By contrast, a system that acts decisively within a framework of public accountability preserves consent even amid hardship.⁴⁹⁰

In this sense, publicly accountable monetary authority is not a constraint on effective crisis response; it is the condition of its durability. Article I accountability ensures that when monetary

power is exercised at its most expansive, it remains intelligible, contestable, and ultimately subordinate to the constitutional order it exists to preserve.⁴⁹¹

§VIII.B. Public Accountability as a Constitutional Requirement

Monetary authority within the American constitutional order must remain publicly accountable because it exercises a function inseparable from democratic consent.⁴⁹² Article I does not merely assign monetary powers; it embeds them within a framework of representation, oversight, and corrigibility.⁴⁹³ Authority over money is authority over obligation—over who must pay, when liability ends, and under what conditions enforcement yields to accommodation.⁴⁹⁴ Such authority cannot be neutral, self-executing, or structurally insulated from public accountability without departing from democratic governance itself.⁴⁹⁵

Where monetary or settlement architectures perform sovereign-adjacent functions while operating beyond electoral control, legislative oversight, or institutional responsibility, they introduce the conditions for *Architectural Sovereignty Contagion* (ASC), a formally defined constitutional risk examined in §VIII.C.⁴⁹⁶ In such cases, governance authority migrates in practice without migrating in law.⁴⁹⁷ Systems may facilitate exchange, store value, or coordinate transactions, yet lack the constitutional attributes required to exercise monetary authority within a republic: public accountability, legal corrigibility, and institutional answerability.⁴⁹⁸ The danger is not immediate illegality, but gradual displacement—where authority over obligation becomes functionally detached from democratic control.⁴⁹⁹

Accountability is therefore not an administrative preference or a regulatory convenience.⁵⁰⁰ It is the constitutional condition that distinguishes democratic monetary governance from non-sovereign or extra-sovereign control.⁵⁰¹ ASC arises precisely when architectures capable of influencing settlement outcomes are normalized without being subject to the public mechanisms that legitimate authority in a constitutional system.⁵⁰² Over time, this erodes the relationship between consent and obligation upon which democratic legitimacy rests.⁵⁰³

This principle does not reject decentralization as a technological concept.⁵⁰⁴ The Constitution itself is a masterwork of decentralized power.⁵⁰⁵ But constitutional decentralization distributes authority while preserving responsibility.⁵⁰⁶ It fragments power only insofar as accountability remains intact and traceable.⁵⁰⁷ Monetary systems that diffuse power while evading public accountability sever that essential link.⁵⁰⁸ In doing so, they do not strengthen democracy—they hollow it by allowing authority to operate without consent, correction, or consequence.⁵⁰⁹

Monetary authority must therefore remain public, answerable, and institutionally bounded—not because the state distrusts innovation, but because democracy cannot survive authority that answers to no one.⁵¹⁰ The prevention of *Architectural Sovereignty Contagion* is not an act of hostility toward new technologies; it is an act of constitutional stewardship, ensuring that innovation does not silently substitute non-accountable architecture for sovereign democratic control.⁵¹¹

§VIII.C. Architectural Sovereignty Contagion and Democratic Risk

Policymaker-Focused Structural Analysis

This section is drafted expressly for legislators, regulators, and constitutional stewards charged with preserving democratic legitimacy across generational horizons. It does not evaluate monetary or financial technologies by efficiency, popularity, or market adoption. Instead, it evaluates institutional architecture—specifically, how systems that perform sovereign-adjacent functions interact with democratic accountability, constitutional authority, and the Republic’s capacity for self-correction over time.⁵¹²

The risk addressed here is not abrupt illegality or overt usurpation. It is structural drift: the gradual normalization of authority exercised outside public accountability. When such authority becomes embedded in core governance domains—especially monetary settlement—the result is not immediate crisis, but long-term democratic dilution. This phenomenon is herein defined as Architectural Sovereignty Contagion (ASC).⁵¹³

Architectural Sovereignty Contagion (ASC) — Formal Definition

Architectural Sovereignty Contagion (ASC) is the structural process by which non-state or extra-sovereign systems that perform sovereign-adjacent functions—particularly monetary, settlement, or obligation-terminating functions—are normalized within a democratic society without being subject to public accountability, legal corrigibility, or institutional responsibility, thereby displacing democratic authority in practice without displacing it in law.⁵¹⁴

ASC occurs when authority migrates functionally rather than formally; when governance capacity is exercised without electoral consent or legislative oversight; and when institutional power becomes embedded in architecture that cannot be corrected, recalled, or held accountable by the public.⁵¹⁵ The defining feature of ASC is not illegality, but misalignment: systems acquire real governing influence while remaining structurally insulated from democratic control.⁵¹⁶

A. How Architectural Sovereignty Contagion Occurs

ASC does not arise through revolution or coercion. It arises through adoption without authorization.⁵¹⁷ Its progression is typically sequential rather than abrupt.

First, a system is introduced to perform a limited technical role—facilitating exchange, coordinating transactions, or storing value—without formal claims to authority.⁵¹⁸

Second, the system expands into sovereign-adjacent functions, influencing settlement finality, obligation discharge, enforcement avoidance, or loss allocation—areas historically governed by public institutions.⁵¹⁹

Third, this expanded role becomes normalized over time without accountability. Because the system is framed as neutral, decentralized, or purely technical, its governing influence escapes democratic scrutiny. Use *precedes* debate; dependence *precedes* consent.⁵²⁰

Finally, once embedded, the architecture resists correction. It cannot be meaningfully altered through elections, legislation, or judicial remedy. Authority persists in practice, but accountability does not.⁵²¹

At this point, sovereignty has not been transferred—but it has been *functionally diluted*.

B. Historical Validation by Contrast: Democratic Seeding as Architectural Immunization Against ASC⁵²²

The phenomenon described above is not hypothetical. It can be empirically validated by examining moments in which the United States deliberately seeded accountable sovereign architecture in post-conflict environments—and thereby prevented the very form of structural dilution that Architectural Sovereignty Contagion (ASC) describes. In this sense, ASC represents the inverse of established United States foreign policy: where U.S. democracy promotion intentionally installs publicly accountable institutions to immunize societies against illegitimate authority, ASC arises when non-accountable architectures are normalized and allowed to displace democratic control. These cases demonstrate a controlling constitutional insight: democratic legitimacy stabilizes when authority is made institutionally visible, publicly accountable, and corrigible by design.

Post–World War II Germany: Institutional Accountability as Democratic Inoculation

Following the defeat of Nazi Germany, the United States—together with its Allied partners—did not merely remove an illegitimate regime. It undertook a deliberate reconstruction of *governance architecture* within its occupation zones. Former Nazi officials were removed not simply as individuals, but as *nodes of unaccountable authority*. In their place, the U.S. helped construct institutions grounded in constitutional responsibility, parliamentary representation, judicial review, and fiscal transparency.

The establishment of the *Federal Republic of Germany* in 1949 was not the result of cultural reeducation alone. It was the product of *architectural substitution*: opaque, coercive authority was replaced with public institutions capable of being audited, contested, and corrected. Economic reconstruction through the *Marshall Plan* reinforced this design by aligning material recovery with institutional legitimacy rather than parallel or informal systems of control.

Germany’s subsequent democratic durability validates ASC by inversion. Where accountable architecture is deliberately installed, sovereignty does not dilute—it consolidates lawfully.

Post–World War II Japan: Constitutional Redesign as Authority Re-Legitimation

A similar pattern emerged in postwar Japan. Under U.S.-led occupation, the objective was not merely demilitarization, but the *re-legitimation of authority* through constitutional redesign. The

drafting of a new constitution—implemented under the authority of Douglas MacArthur—replaced opaque imperial governance with a parliamentary system, judicial independence, enforceable civil rights, and explicit constraints on executive power.

Crucially, authority was not allowed to persist in informal or extra-institutional form. Sovereign functions were re-anchored to public offices subject to law, rather than to tradition, hierarchy, or technocratic insulation. The result was not the erosion of sovereignty, but its democratic restoration.

Japan's long-term stability illustrates that **institutional accountability, once embedded, propagates democratic legitimacy across generations**. ASC did not take hold because architecture was made answerable before alternative systems could normalize.

South Korea: Security Umbrella as Temporal Protection for Institutional Maturation

South Korea provides a more gradual but equally instructive validation. U.S. intervention during the Korean War prevented the immediate substitution of sovereign authority by an unaccountable regime. This intervention did not instantly produce democracy; rather, it created the *temporal and institutional space* necessary for democratic architecture to emerge internally over time.

Authoritarian phases did occur. Yet critically, governance remained tethered—however imperfectly—to institutions that could eventually be contested, reformed, and democratized. The security umbrella prevented the entrenchment of extra-sovereign authority structures that would have been immune to correction.

This case demonstrates a key dimension of ASC: **contagion accelerates when unaccountable systems are allowed to entrench faster than accountable institutions can form**. Where time is preserved for institutional maturation, dilution can be reversed.

Grenada: Rapid Re-Embedding of Accountable Authority

The 1983 intervention in Grenada illustrates ASC prevention in compressed form. Following the removal of a Marxist regime, the United States did not govern through prolonged occupation or parallel authority structures. Instead, it facilitated the rapid restoration of electoral legitimacy, constitutional order, and civilian governance.

By re-embedding authority quickly into publicly accountable institutions—rather than allowing interim technical or ideological systems to normalize—Grenada avoided long-term architectural displacement. The result has been sustained democratic governance and peaceful transfers of power.

The lesson is not one of scale, but of structure: **where authority is returned promptly to accountable institutions, contagion is arrested before it compounds**.

Doctrinal Synthesis

Taken together, these cases confirm the core logic of Architectural Sovereignty Contagion:

- **Sovereignty is transmitted—or diluted—through architecture, not rhetoric**
- **Unaccountable systems normalize authority without consent**
- **Accountable institutions inoculate democracies against long-horizon dilution**

In each successful case, the United States did not merely oppose hostile ideology. It **replaced unaccountable authority with public, corrigible, institutionally bounded governance**. Where this replacement occurred deliberately and early, democratic legitimacy endured. Where it was delayed or partial, risk persisted—but remained reversible so long as institutions retained the capacity for correction.

These examples therefore do not contradict ASC.

They *validate it*—by showing that when architectural contagion is prevented, democratic sovereignty survives.

They also clarify the warning implicit in this Doctrine:

when non-accountable architectures are introduced into a democratic system without institutional substitution, sovereignty is not overtaken—it is quietly thinned.

That thinning, over time, is the true constitutional risk.

C. Why Monetary Architecture Is the Primary Vector of Risk

Monetary systems occupy a unique constitutional position. Authority over money is authority over obligation: who must pay, when liability ends, and under what conditions enforcement yields to accommodation. These are not neutral technical functions. They are governance functions.⁵²³

When monetary or settlement architectures perform these roles without being publicly accountable, ASC accelerates. Unlike other technological domains, monetary architecture directly shapes legal finality, enforcement outcomes, distribution of loss during crisis, and the boundary between market failure and public response.⁵²⁴ Because money sits at the intersection of law, obligation, and consent, architectural displacement in this domain carries disproportionate democratic risk.⁵²⁵

D. Democratic Consequences Over a 100-Year Horizon

Democratic systems rarely fail through sudden rupture. They fail through gradual dilution of accountability.⁵²⁶ Over long horizons, ASC produces compounding effects: authority becomes procedural rather than representative; correction mechanisms atrophy; and governance shifts from consent-based legitimacy to protocol permanence.⁵²⁷

Once non-accountable authority is accepted as legitimate in one core domain, precedent extends to others. What begins in monetary settlement spreads to enforcement logic, administrative coordination, and civic expectation. Standards shift. Democratic intuition erodes. Power becomes less visible, less contestable, and less answerable.⁵²⁸

This is why Architectural Sovereignty Contagion must be evaluated across generations, not electoral cycles. Democracies do not lose legitimacy when they make mistakes; they lose legitimacy when they lose the capacity to correct them. When correction fails, constitutional authority thins, and with it the foundations of national security. In this sense, national security is not antecedent to constitutional order but derivative of it: a republic cannot remain secure if it can no longer govern its own obligations, institutions, or corrections through law.⁵²⁹

E. Constitutional Design as a Preventive Architecture

The Founding generation confronted an early manifestation of this risk under the Articles of Confederation. Decentralization without administering authority produced fragmentation, coercive enforcement, and legitimacy collapse.⁵³⁰ The constitutional response was not consolidation of power, but accountable distribution of it.⁵³¹

The Constitution deliberately bound monetary authority to public institutions rather than objects, markets, or mechanisms—not because innovation was distrusted, but because democracy requires authority that can be seen, challenged, corrected, and recalled.⁵³² Constitutional decentralization preserves accountability even as it disperses power. ASC arises when decentralization severs that link.⁵³³

F. Legislative Implication: Stewardship, Not Suppression

This analysis does not argue against decentralized technology, nor does it prescribe specific legislative outcomes. **It establishes a constitutional boundary.**⁵³⁴ Innovation may proceed. Markets may evolve. Technologies may coordinate value. But sovereign-adjacent authority may not operate without democratic accountability.⁵³⁵

Preventing Architectural Sovereignty Contagion is therefore not an act of hostility toward innovation. It is an act of constitutional stewardship—ensuring that new architectures do not silently substitute non-accountable systems for sovereign democratic control.⁵³⁶ In a republic, authority must remain public not because the state seeks dominance, but because democracy cannot survive authority that answers to no one.⁵³⁷

Congressional Briefing Insert

Architectural Sovereignty Contagion (ASC): A 100-Year Constitutional Risk

Purpose

To provide Members of Congress and senior policymakers with a concise constitutional framework for evaluating monetary and settlement architectures that operate outside public accountability, and to identify long-horizon democratic risks associated with such systems. This briefing does **not** allege current constitutional violation; it identifies structural risk conditions relevant to future legislative oversight, authorization, and institutional design.

Executive Summary

The most enduring threats to constitutional democracy do not arise solely from overt illegality or sudden seizure of power. They arise from **structural dilution**—the gradual normalization of authority exercised without democratic accountability.

In the monetary domain, this risk manifests through *Architectural Sovereignty Contagion (ASC)*: the process by which systems not subject to electoral consent, legislative oversight, or institutional correction begin to exercise *sovereign-adjacent authority* over public obligation.

ASC does not displace law directly. It substitutes *function without authority*, allowing governing power to migrate in practice while remaining unaccountable in law. Over time, this weakens the constitutional relationship between consent, obligation, and legitimacy.

Formal Definition (ASC)

Architectural Sovereignty Contagion (ASC) is the systemic process by which non-accountable monetary or settlement architectures acquire practical authority over public obligation—such as settlement finality, liability termination, or monetary coordination—without being subject to democratic consent, statutory oversight, or institutional corrigibility.

ASC occurs when:

- Authority migrates **functionally but not legally**
- Power influences obligation **without public accountability**
- Governance capacity emerges **without mechanisms for correction or recall**

The defining feature of ASC is not illegality, but *misalignment*: systems exercise real governing influence while remaining structurally insulated from democratic control.

Why This Matters Constitutionally

Under *Article I*, monetary authority is inseparable from democratic legitimacy because it governs:

- Who must pay
- When liability ends
- How enforcement yields to accommodation

For this reason, the Constitution binds monetary authority to *public institutions* rather than objects, markets, or mechanisms—not because innovation is distrusted, but because democracy cannot survive authority that answers to no one.

Systems that perform settlement or monetary coordination while remaining structurally insulated from accountability may be lawful as technologies, but they *cannot legitimately exercise monetary authority within a republic*. Accountability is not an administrative preference; it is the constitutional condition that transforms power into governance.

The Long-Horizon Risk (100-Year Lens)

ASC operates *cumulatively*, not catastrophically.

Over time:

- Public expectations adjust
- Oversight norms weaken
- Democratic correction gives way to protocol permanence
- Authority becomes operationally entrenched but politically unreachable

What begins as technical efficiency matures into *civic displacement*, where decisions affecting public obligation occur outside constitutional mechanisms.

Democracies historically fail not only by granting too much power to the state—but by allowing power to *escape the state entirely* and reappear in architectures that cannot be audited, corrected, or removed by the public.

Founding-Era Insight (Still Controlling)

The Founding generation bound monetary authority to institutions rather than artifacts precisely to prevent this outcome.

They understood that:

- Power need not be eliminated to preserve liberty
- Power must remain **visible, contestable, and answerable**
- Decentralization without accountability is **instability, not freedom**

Constitutional decentralization distributes authority while preserving responsibility. It fragments power only insofar as accountability remains intact and traceable. It does not sever the two.

Historical Validation by Contrast: Democratic Seeding as Immunization Against ASC

Architectural Sovereignty Contagion is not a speculative theory. It is best understood in contrast to a long-standing body of United States foreign policy practice.

For more than seven decades, the United States has operated on a consistent constitutional insight abroad: **democratic stability is preserved not by efficiency alone, but by deliberately seeding publicly accountable institutional architecture** in societies emerging from crisis or collapse.

Post-conflict reconstruction efforts led or supported by the United States—particularly after World War II—prioritized constitutional frameworks, representative institutions, fiscal authority anchored in public offices, and mechanisms for accountability. The objective was not merely economic recovery, but prevention of authority drifting into opaque, non-sovereign structures.

ASC represents the *inverse* of this doctrine. Where U.S. democracy promotion abroad intentionally immunizes societies against unaccountable authority by constructing sovereign institutions, ASC arises when non-accountable architectures are normalized *within* a democratic system and allowed to perform sovereign-adjacent functions without public oversight.

For Congress, the implication is direct: a structural risk long recognized abroad must be taken seriously at home.

Policy Implication for Congress

When evaluating monetary, settlement, or financial architectures, the controlling constitutional question is **not**:

Is this system efficient, innovative, or decentralized?

It is:

Does this architecture preserve public accountability over obligation across time?

Where the answer is no, **ASC risk exists**—regardless of legality, popularity, or technical sophistication. Identifying such risk does not predetermine legislative outcomes; it informs responsible oversight, authorization, and institutional design.

Bottom Line

Over a century-long horizon, democracy does not collapse abruptly.

It *thins*—until sovereignty remains in name but not in practice.

Preventing Architectural Sovereignty Contagion is not hostility toward innovation.

It is **constitutional stewardship**—the preservation of democratic authority in an age of evolving systems.

§VIII.D. Transparency as Constitutional Safeguard

Transparency within a constitutional monetary system is not a matter of administrative best practice. It is a structural safeguard that preserves democratic legitimacy when authority must act beyond ordinary conditions. Monetary authority necessarily operates with discretion under stress, but discretion without visibility dissolves consent. Transparency is the mechanism by which extraordinary authority remains tethered to public understanding, legislative oversight, and historical accountability.⁵³⁸

The Founding generation understood that authority exercised in secrecy corrodes legitimacy even when outcomes are defensible. While they could not foresee modern monetary institutions, they embedded transparency indirectly through structure: legislative authorization, public debate, recorded proceedings, and post-hoc accountability.⁵³⁹ These mechanisms ensured that when authority acted beyond ordinary bounds, it remained explainable, contestable, and correctable. Transparency was not intended to prevent action—it was intended to preserve trust after action occurred.⁵⁴⁰

In the modern context, transparency serves three constitutionally essential functions. First, it preserves democratic consent by making the exercise of monetary authority intelligible to the public and to their representatives.⁵⁴¹ Second, it transmits institutional memory forward, ensuring that future policymakers inherit not only tools, but documented reasoning, constraints, and acknowledged risks.⁵⁴² Third, it enables post-crisis re-legitimation. Authority exercised under necessity cannot remain indefinitely justified by emergency. Transparency allows extraordinary measures to be evaluated, limited, and—where appropriate—withdrawn without destabilizing confidence.⁵⁴³

Critically, transparency does not mean operational paralysis. Constitutional transparency is not real-time plebiscite. It is structured visibility: reporting, explanation, auditability, and legislative access sufficient to ensure that authority remains bounded by law rather than shielded by complexity.⁵⁴⁴ Where transparency is absent, discretion hardens into permanence. Where it is present, discretion remains provisional and accountable.⁵⁴⁵

This distinction is essential to preventing Architectural Sovereignty Contagion. Systems that perform sovereign-adjacent functions while presenting themselves as neutral, technical, or decentralized often evade transparency by design.⁵⁴⁶ When authority is exercised without explanation, dependence precedes consent and use precedes debate. Over time, opacity substitutes for legitimacy, and architecture substitutes for governance.⁵⁴⁷ Transparency interrupts this process by forcing authority back into the constitutional light—where it can be justified, constrained, or corrected.⁵⁴⁸

Accordingly, transparency operates as a constitutional brake, not on action, but on unaccountable permanence. It ensures that monetary authority remains a public trust rather than a private mechanism, and that emergency capacity does not become silent sovereignty.⁵⁴⁹ In this sense, transparency is not ancillary to democratic governance. It is the condition that allows authority to act under stress without severing its bond to consent.⁵⁵⁰

§VIII.E. The Dangers of Delegating Rigidity

Delegation within a constitutional system is justified only when it preserves the capacity for lawful correction. Authority may be distributed, but rigidity must never be. When governance functions—particularly those touching settlement, obligation, or enforcement—are delegated into systems that cannot pause, adapt, or be recalled, the result is not efficiency but constitutional brittleness.⁵⁵¹

A. Systems That Cannot Pause

A defining danger of rigid architectures is their inability to suspend operation under stress. Constitutional governance assumes that extraordinary conditions will arise—war, panic, collapse, or mass dislocation—and that lawful authority must retain discretion to delay enforcement, extend time, or recalibrate obligation.⁵⁵² Systems that operate continuously and automatically, without a mechanism for pause, substitute process continuity for legal judgment.

Such rigidity is *not* neutral. It reallocates discretion from accountable institutions to immutable protocols, where timing, execution, and consequence are fixed in advance and insulated from public correction.⁵⁵³ What appears as reliability under normal conditions becomes compulsion under stress. Obligations are enforced not because law has determined enforcement remains legitimate, but because the system lacks the capacity to do otherwise.⁵⁵⁴

The Founding generation recognized this danger in earlier forms. Rigid enforcement of debt during post-war contraction did not restore order; it converted economic distress into social unrest.⁵⁵⁵ The constitutional response was not to eliminate enforcement, but to embed it within institutions capable of restraint—institutions that could pause, renegotiate, or mediate when arithmetic rendered universal performance impossible.⁵⁵⁶

Delegating settlement or enforcement authority into architectures incapable of pause recreates the very failure the Constitution was designed to prevent. Law ceases to govern outcomes; timing governs law.⁵⁵⁷

B. Enforcement Without Representation

Equally destabilizing is enforcement without representation. In a constitutional republic, enforcement authority derives legitimacy not merely from effectiveness, but from its traceability to consent.⁵⁵⁸ When systems enforce obligations automatically—without legislative authorization, executive discretion, or judicial review—they sever the link between obligation and representation.

This separation produces a distinct constitutional pathology. Authority exists. Consequences are imposed. Yet no office can be questioned, corrected, or held responsible.⁵⁵⁹ The public may bear the burden of enforcement without possessing any mechanism to contest its application or recalibrate its scope. Enforcement persists, but consent *dissipates*.

Historically, such conditions have produced resistance rather than compliance. Enforcement perceived as inevitable but unaccountable is experienced not as law, but as domination.⁵⁶⁰ The Constitution therefore distributes enforcement authority across institutions precisely to prevent it from becoming absolute, automatic, or self-justifying.⁵⁶¹

Rigid architectures invert this design. They promise neutrality but deliver unanswerable power. They remove human judgment in the name of fairness, yet eliminate the very discretion that allows law to remain legitimate under stress.⁵⁶² Enforcement continues even when representation cannot respond.

C. Rigidity as Constitutional Risk

The constitutional danger is not delegation itself, but *delegation without recall*. Authority that cannot be paused, reviewed, or withdrawn becomes *functionally sovereign*—even if never formally authorized as such.⁵⁶³ This is the pathway by which Architectural Sovereignty Contagion emerges: governance functions migrate into systems that enforce outcomes while escaping constitutional correction.

Rigidity, once normalized, resists reform. Because it operates continuously, dependence forms *before* deliberation. Correction becomes costly, politically fraught, or technically infeasible.⁵⁶⁴ What began as efficiency matures into entrenchment.

The Constitution rejects this trajectory. It assumes that enforcement must remain subordinate to law, and that law must remain answerable to the people through institutions capable of restraint.⁵⁶⁵ Systems that cannot pause cannot govern democratically. They can only execute.

For this reason, constitutional fidelity requires that no settlement or enforcement architecture be delegated authority without retaining a public mechanism for pause, review, and recall. Without such mechanisms, rigidity does not preserve order—it accelerates fracture.⁵⁶⁶

§VIII.F. Congress as the Ultimate Backstop

Within the American constitutional order, Congress functions as the ultimate backstop against both rigidity and unaccountable authority. This role is neither symbolic nor residual. It is structural. The Constitution vests Congress with responsibility not only for authorizing obligations, but for ensuring that the systems through which those obligations are created, managed, and terminated remain legitimate, accountable, and corrigible over time.⁵⁶⁷

Authorization as Democratic Anchor

Congressional authorization is the first safeguard against Architectural Sovereignty Contagion. By requiring that public obligations originate in representative assent, Article I ensures that no monetary or fiscal architecture may claim legitimacy without passing through democratic deliberation.⁵⁶⁸ Authorization binds obligation to consent, and consent to law. It prevents the quiet migration of governing power into systems that operate by default rather than decision.⁵⁶⁹

This requirement becomes most consequential during crisis. Emergencies generate pressure for speed, automation, and delegation. Yet the Constitution deliberately resists self-executing authority at moments of stress.⁵⁷⁰ Congress's role is not to obstruct response, but to ensure that response remains anchored in public judgment rather than technical inevitability.⁵⁷¹ Where authorization is bypassed or assumed, governance shifts from accountable choice to architectural compulsion.

Oversight as Continuous Legitimacy

Authorization alone is insufficient. Congressional oversight supplies the continuity necessary to prevent temporary accommodations from hardening into permanent displacement.⁵⁷² Oversight preserves institutional memory by requiring justification, disclosure, and periodic reevaluation of extraordinary measures. It keeps elasticity from becoming arbitrariness and discretion from becoming drift.⁵⁷³

Oversight also preserves separation without isolation. By monitoring monetary and administrative institutions without absorbing their functions, Congress maintains the balance between independence and accountability.⁵⁷⁴ This balance is essential to democratic resilience. Institutions charged with settlement, liquidity, or enforcement must retain operational capacity—but never insulation from inquiry.⁵⁷⁵ Where oversight lapses, authority persists without explanation, and legitimacy erodes quietly.

Re-Legitimation After Crisis

Crises do not end when conditions stabilize. They end when authority is re-legitimated. Congress alone possesses the constitutional capacity to perform this function. Through hearings, statutory revision, and public accounting, Congress converts emergency action back into ordinary law, restoring democratic equilibrium.⁵⁷⁶

This re-legitimation function is indispensable. Without it, crisis measures linger as precedent without consent, and extraordinary architectures become normalized without review.⁵⁷⁷ The danger is not that emergency powers were exercised, but that they were never closed. Re-legitimation restores closure by reaffirming that authority exercised under stress remains answerable to the people once stability returns.⁵⁷⁸

In this sense, Congress is not merely a participant in monetary governance. It is the constitutional guarantor that governance remains democratic across time. Authorization initiates *legitimacy*. Oversight *preserves it*. Re-legitimation *renews it*.⁵⁷⁹ Where these functions are maintained, the Republic adapts without surrendering consent. Where they are neglected, even well-intentioned systems drift toward authority without accountability.

The Constitution therefore assigns Congress its final and most demanding role not at moments of calm, but at the threshold between crisis and continuity.⁵⁸⁰ It is here—after necessity has passed—that democratic stewardship proves whether power has remained governed by law, or whether law has quietly yielded to architecture.

§IX. Misclassification in Modern Monetary Discourse

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

Modern monetary debate is increasingly framed as a contest between scarcity and accommodation, rigidity and discretion, rules and flexibility. This framing is incomplete—and often misleading. The constitutional failure modes that threaten monetary legitimacy do not arise from choosing the “wrong” side of this binary, but from misclassifying the function that money is meant to serve within a constitutional order. When scarcity is mistaken for discipline, or accommodation for stability, systems are evaluated by appearance rather than by their capacity to preserve lawful closure, democratic consent, and institutional continuity under stress.

The Founding generation confronted this problem not as abstraction, but as lived experience. They learned that monetary systems fail in two distinct and opposite ways. Fixed systems without accommodation convert economic contraction into legal impossibility, forcing enforcement to substitute for settlement and coercion to substitute for governance. Elastic systems without accountability convert necessary discretion into unanswerable authority, allowing outcomes to be imposed without consent, explanation, or correction. Both failures undermine legitimacy. Both fracture continuity. Neither preserves constitutional order.

What unites these failures is not ideology, technology, or intent—but misclassification. Scarcity was never meant to function as an enforcement regime. Accommodation was never meant to function as autonomous governance. When monetary architectures are judged solely by mechanical constraint or technical capacity—rather than by whether they can lawfully terminate obligation while remaining accountable to the public—the constitutional function of money is obscured. Debate shifts toward efficiency, neutrality, or innovation, while legitimacy quietly erodes.

This chapter clarifies that error. It identifies two dominant misclassifications in modern monetary discourse—scarcity without accommodation and accommodation without accountability—and demonstrates how each produces systemic stress through opposite mechanisms. It then articulates the constitutional synthesis the Founders ultimately embedded: elasticity governed by accountability. This balance is not compromise. It is design. It preserves discipline without coercion, discretion without technocracy, and continuity without dilution of consent.

§IX.A examines why fixed systems amplify stress rather than discipline when accommodation is absent.

§IX.B addresses why discretionary accommodation becomes corrosive when accountability is severed.

§IX.C resolves the apparent tension by returning to first principles: the Constitution does not ask monetary authority to choose between rigidity and discretion. It demands that both be governed.

Misclassification is not merely an analytical error. It is a structural risk. When monetary discourse mistakes mechanism for legitimacy, systems may function for a time—but governance

does not endure. This chapter therefore restores the constitutional metric that modern debate too often neglects: not whether money is scarce or flexible, but whether it remains capable of lawful closure, democratic answerability, and institutional correction across cycles of stress.

In this sense, §IX does not argue for a particular monetary system. It reasserts the standard by which all such systems must be judged.

§IX.A. Scarcity Without Accommodation

Why Fixed Systems Amplify Stress

Scarcity, when embedded within a monetary system without lawful accommodation, does not produce discipline. It produces amplification of stress. Fixed or mechanically constrained systems may appear neutral under ordinary conditions, but under contraction they convert economic shock into legal impossibility—where obligations continue to accrue while settlement capacity collapses. In such environments, the problem is not individual failure but systemic arithmetic: universal performance becomes unattainable by design.⁵⁸¹

The Founding generation encountered this dynamic directly. Under the Articles of Confederation, rigid monetary arrangements and fragmented fiscal authority transformed scarcity into coercion. Debts remained enforceable even as liquidity vanished, forcing enforcement to substitute for settlement. The result was not market correction, but social unrest, asset seizure, and legitimacy erosion.⁵⁸² The constitutional response was therefore not to deny scarcity, but to ensure that scarcity could be mediated through lawful institutional accommodation rather than resolved through force.⁵⁸³

Fixed systems amplify stress because they lack temporal discretion. They cannot extend time, redistribute burden, or recalibrate obligation in response to systemic contraction. When demand for liquidity spikes and income collapses simultaneously, rigid systems do not stabilize markets—they accelerate failure cascades. Defaults cluster. Enforcement intensifies. Courts and creditors are forced into roles they cannot constitutionally perform: choosing winners under conditions where loss cannot be avoided, only allocated.⁵⁸⁴

This amplification effect is not limited to historical metallic standards or pre-modern monetary regimes. Any architecture that constrains settlement mechanically—without an accountable authority empowered to expand, contract, or suspend enforcement—reproduces the same structural vulnerability. Scarcity becomes absolute rather than contextual. Adjustment becomes impossible rather than deliberate. Stress migrates from markets into the legal order itself.⁵⁸⁵

Critically, scarcity without accommodation does not eliminate discretion. *It displaces it.* When systems cannot absorb shock through lawful elasticity, discretion reappears in less legitimate forms: selective enforcement, emergency seizure, political favoritism, or extralegal intervention.⁵⁸⁶ What is presented as neutrality thus becomes arbitrariness under pressure. Fixed systems promise fairness through rules, but deliver inequality through collapse.

The constitutional insight is therefore direct. Scarcity must exist to discipline value, but accommodation must exist to preserve legitimacy. Money cannot serve its defining function—lawful termination of obligation—if scarcity renders settlement unattainable precisely when it is most needed.⁵⁸⁷ Elasticity is not a denial of limits; it is the mechanism by which limits remain governable rather than destructive.⁵⁸⁸

Modern proposals that elevate fixed monetary architectures as inherently stabilizing misread this history. *Stability does not arise from immobility. It arises from the capacity to adapt within law.* Systems that cannot accommodate stress do not preserve order; they force its rupture.⁵⁸⁹ In constitutional terms, rigidity is not restraint. It is abdication of responsibility when governance is most required.⁵⁹⁰

Accordingly, scarcity without accommodation must be understood not as a feature of sound money, but as a structural risk. It transforms economic contraction into constitutional strain by severing the relationship between obligation and lawful closure. Where accommodation is absent, enforcement escalates, consent erodes, and continuity fractures.⁵⁹¹ The Republic's monetary design rejects this outcome—not by eliminating scarcity, but by embedding it within institutions capable of absorbing stress without surrendering legitimacy.⁵⁹²

§IX.B. Accommodation Without Accountability

Accommodation is constitutionally necessary to preserve settlement and continuity under stress. But accommodation divorced from public accountability introduces a distinct and equally destabilizing failure mode. Where scarcity without accommodation produces rigidity and coercion, accommodation without accountability produces discretion without legitimacy. Both undermine constitutional order, though by opposite mechanisms.⁵⁹³

Within the American constitutional framework, elasticity is not authorized as an end in itself. It is permitted only insofar as it remains bounded by law, subject to oversight, and traceable to democratic consent.⁵⁹⁴ When accommodative authority expands without corresponding accountability, monetary governance begins to drift from constitutional stewardship toward technocratic autonomy.⁵⁹⁵ *The result is not stability, but fragility masked as competence.*

Historically, the Founding generation was acutely aware of this danger. Their experience with colonial paper money demonstrated that discretionary issuance, when insulated from public control, eroded trust, distorted obligation, and provoked resistance rather than compliance.⁵⁹⁶ The constitutional response was not to deny the need for accommodation, but to embed it within representative institutions capable of justification, correction, and recall.⁵⁹⁷ Elasticity was made lawful precisely by making it answerable.

Accommodation without accountability severs this design. Decisions affecting settlement capacity, loss allocation, and enforcement timing may be operationally effective, yet lack a legitimate channel of consent.⁵⁹⁸ Authority persists, consequences follow, but no institution stands clearly responsible to the public. Over time, this produces democratic dissonance: outcomes may appear successful, yet legitimacy erodes because the public cannot identify who acted, by what authority, or under what constraints.⁵⁹⁹

This dynamic is especially corrosive during extended crises. Emergency accommodations justified by necessity tend to persist beyond the conditions that authorized them.⁶⁰⁰ Without transparency and legislative review, provisional measures harden into precedent, and discretion

transforms into structural entitlement.⁶⁰¹ What began as crisis management becomes an unexamined baseline, insulated from democratic correction.

Accommodation without accountability also accelerates Architectural Sovereignty Contagion. When systems normalize discretionary authority while remaining opaque, public institutions risk becoming reactive rather than governing.⁶⁰² Markets, protocols, or administrative mechanisms begin to shape settlement outcomes in ways that are functionally sovereign but constitutionally unanchored.⁶⁰³ The danger is not excess power in a single office, but diffusion of power into architectures that cannot be audited, voted out, or compelled to justify their actions.⁶⁰⁴

The Constitution rejects both extremes. It does not permit rigid enforcement that ignores systemic impossibility, nor does it permit elastic discretion that escapes public control.⁶⁰⁵ Legitimate accommodation must therefore satisfy three conditions simultaneously: it must be authorized by law, exercised transparently, and subject to institutional review.⁶⁰⁶ Where any of these conditions is absent, accommodation ceases to preserve constitutional continuity and instead undermines it.

The lesson is structural and enduring. Elasticity preserves legitimacy only when it remains visible, corrigible, and answerable to the people through their representatives.⁶⁰⁷ Without accountability, accommodation becomes indistinguishable from governance by discretion alone. *In such systems, stability may persist for a time—but consent does not.*⁶⁰⁸

§IX.C. Elasticity With Accountability as Constitutional Closure

The American constitutional system does not reject elasticity, nor does it tolerate unaccountable discretion. Its genius lies in balancing the two. Monetary authority must be sufficiently elastic to preserve settlement, continuity, and legal peace under stress—yet sufficiently accountable to preserve democratic legitimacy, consent, and constitutional restraint.⁶⁰⁹ Either principle without the other produces systemic failure.

Scarcity without accommodation converts economic stress into enforcement crisis. Fixed systems amplify shock by forcing universal performance when arithmetic renders it impossible.⁶¹⁰ Under such conditions, law ceases to terminate obligation and instead accelerates dispossession, social fracture, and resistance. The Founding generation encountered this failure directly under the Articles of Confederation, where decentralized rigidity produced coercion rather than order.⁶¹¹ The constitutional response was not abandonment of markets, but the creation of institutions capable of lawful accommodation.⁶¹²

Yet accommodation without accountability produces a failure no less corrosive. When elasticity is exercised outside democratic authorization, institutional oversight, or public corrigibility, discretion detaches from consent.⁶¹³ Authority persists, outcomes are imposed, but no office remains answerable. Over time, this condition erodes legitimacy even when short-term stability is achieved. Systems may function efficiently while quietly displacing the constitutional relationship between obligation and democratic control.⁶¹⁴

The Constitution resolves this tension by embedding elasticity within accountable governance. Article I vests monetary authority in Congress not to mandate daily administration, but to ensure that elasticity remains traceable to democratic authorization, bounded by statute, and subject to correction.⁶¹⁵ Delegation is permitted precisely because abdication is not. Institutions may act, but they must act within law—and remain answerable once necessity has passed.⁶¹⁶

This balance is not theoretical. It has been repeatedly validated in practice. Where elasticity has been paired with transparency, oversight, and post-crisis re-legitimation, the Republic has absorbed extraordinary shock without repudiation or repression.⁶¹⁷ Where rigidity or unaccountable discretion has prevailed, enforcement hardened, legitimacy fractured, and continuity was imperiled.⁶¹⁸ History confirms what constitutional design anticipated: stability without consent is temporary, and consent without capacity is brittle.

Elasticity with accountability therefore operates as a constitutional closure mechanism. It ensures that obligations can be created deliberately, managed lawfully, and terminated conclusively—even under conditions of extreme stress.⁶¹⁹ It prevents markets from collapsing into coercion and prevents institutions from drifting into technocracy. In this sense, elasticity is not a deviation from constitutional order; it is one of its operational safeguards—so long as it remains governed.

The enduring lesson is precise. The Republic does not survive by choosing between discipline and discretion. It survives by governing both.⁶²⁰ Monetary authority that can adapt but not answer dissolves democracy. Monetary authority that can answer but not adapt dissolves settlement. The Constitution rejects both outcomes by insisting on balance.

Accordingly, the constitutional standard is neither rigidity nor permissiveness, but accountable elasticity—authority capable of acting under stress, visible to the public, bounded by law, and corrigible over time.⁶²¹ Where that balance is preserved, continuity endures. Where it is lost, either scarcity or discretion will fracture the order it was meant to sustain.

This chapter therefore closes on the Constitution’s quiet insistence: **power must be sufficient to preserve order, yet restrained enough to preserve consent.** In monetary governance, that insistence takes the form of elasticity with accountability—not as compromise, but as constitutional fidelity.⁶²²

§X. Money That Can Carry a Republic Through Crisis

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

The central claim of this doctrine is now fully visible. Money, within a constitutional republic, is not merely a medium of exchange, a store of value, or a unit of account. It is an institutional mechanism for carrying obligation through stress without dissolving legitimacy. Its defining test is not performance in equilibrium, but behavior under strain. A monetary system succeeds constitutionally not when it optimizes markets in calm, but when it preserves lawful closure, democratic consent, and institutional continuity in crisis.⁶²³

This paper has demonstrated that the Founding generation understood this with uncommon clarity. Their experience under the Articles of Confederation revealed a harsh truth: money that cannot accommodate crisis does not discipline society—it *fractures it*.⁶²⁴ Rigid systems did not produce virtue or responsibility. They produced impossibility, coercion, and resistance. When liquidity vanished and obligations remained enforceable, law ceased to coordinate settlement and instead became an instrument of extraction. The result was not order, but unrest.⁶²⁵

From this experience emerged a constitutional lesson that remains controlling. Scarcity alone cannot govern a republic. Discipline cannot be imposed mechanically where arithmetic makes universal performance unattainable. Money must be capable of absorbing shock so that obligation may still end lawfully rather than persist endlessly through enforcement.⁶²⁶ Accommodation was therefore not a concession to weakness. It was a condition of republican survival.

Yet the Founders were equally precise about the opposite danger. Accommodation divorced from accountability corrodes legitimacy just as surely as rigidity corrodes order. Discretion that cannot be explained, reviewed, or corrected severs the relationship between obligation and consent. Over time, authority exercised without public answerability ceases to be governance and becomes administration without legitimacy.⁶²⁷ The constitutional solution was not to deny discretion, but to govern it.

This is why the Constitution chose offices over artifacts. It vested monetary authority in public institutions rather than in objects, mechanisms, or immutable rules.⁶²⁸ Artifacts cannot remember failure. Rules cannot adapt to collapse. Markets cannot legitimate coercion. Only institutions—answerable to the people, bounded by law, and capable of restraint—can preserve continuity across cycles of expansion and contraction.⁶²⁹ Money was therefore constitutionalized not as a thing to be possessed, but as a public function to be exercised.

This choice reflects a deeper insight often obscured in modern discourse. Rigidity is not neutrality. Fixed systems do not eliminate discretion; they displace it into enforcement, seizure, and political conflict. When systems cannot adapt, discretion reappears in less legitimate forms—

selective enforcement, emergency intervention, or extralegal correction.⁶³⁰ What presents itself as rule-based fairness becomes arbitrariness under pressure.

Nor is discretion corruption. Discretion exercised within law, subject to oversight, and accountable to the public is not a betrayal of discipline. It is discipline's institutional form.⁶³¹ Elasticity governed by accountability allows a republic to absorb loss without surrendering legitimacy, to pause enforcement without abandoning obligation, and to preserve consent even when outcomes are painful. The danger lies not in discretion itself, but in discretion that cannot be seen, questioned, or closed.

The constitutional balance, therefore, is exacting but durable. Money must be elastic enough to preserve settlement when markets fail, and accountable enough to preserve legitimacy when authority expands.⁶³² Either principle alone is destructive. Together, they form the architecture of continuity.

This doctrine has warned repeatedly that modern monetary debates too often misclassify this balance. Scarcity is mistaken for virtue. Automation is mistaken for neutrality. Decentralization is mistaken for democracy. Efficiency is mistaken for legitimacy. These errors do not merely distort policy—they invite structural failure. A republic cannot be carried through crisis by systems that cannot pause, cannot answer, or cannot remember.⁶³³

The Founding generation did not expect perfection. They expected stress. Their achievement was not the elimination of crisis, but the construction of institutions capable of governing through it. Monetary authority was bound to Congress not to politicize money, but to legitimate it. Delegation was permitted not to escape responsibility, but to preserve it. Oversight was required not to slow action, but to restore consent once necessity passed.⁶³⁴

The final institutional warning of this doctrine is therefore plain.

A monetary system that cannot accommodate crisis will fracture society.

A monetary system that accommodates without accountability will hollow democracy.

The Republic survives only where money remains capable of lawful closure, democratic answerability, and institutional correction across time.⁶³⁵

Constitutional stewardship demands vigilance not only against tyranny by force, but against erosion by architecture. The danger is rarely sudden. It is cumulative. Power migrates quietly when systems are normalized without consent, and legitimacy thins when authority cannot be recalled. The Constitution resists this not by freezing innovation, but by insisting that innovation never substitute itself for accountable governance.⁶³⁶

Money that can carry a republic through crisis is not the hardest, the fastest, or the most novel. *It is the most constitutional.* It remembers why it exists, answers to those it governs, and remains corrigible when stress reveals its limits. That is not an economic preference. It is a constitutional requirement—and one that must be renewed by each generation entrusted with the Republic's continuity.⁶³⁷

§XI. Author's Reflection

[\(Return to Table of Contents\)](#) [\(Return to Authorities\)](#)

This paper did not begin in opposition to contemporary monetary thought, nor as a rebuttal to modern innovation. It began with a realization—*quiet, unforced, and unmistakable*—formed while reading *The Glorious Burden*. In those pages, history did not present itself as distant record, but as living inheritance. What emerged was not disagreement with the present, but concern for what the present too often forgets.

The United States is a nation forged not merely by ideas, but by sacrifice under pressure. Its constitutional architecture was not designed in abstraction, but in response to failure, collapse, and near-fracture. Yet modern discourse increasingly treats those experiences as incidental—interesting, perhaps, but no longer determinative. In doing so, it risks severing the Republic from the very memory that gives its institutions meaning.

To disassociate past sacrifice from present analysis is not a neutral act. It alters identity. When national discourse loses its anchoring in learned experience, continuity gives way to repetition. Errors once paid for in hardship are rediscovered as theory. What was resolved through suffering is reopened as abstraction.

This paper is therefore not an argument against progress. *It is an argument for memory.*

The Founding generation did not speculate about monetary collapse, debt saturation, or enforcement failure. *They lived it.* They did not theorize about legal tender, obligation, or closure in equilibrium. They confronted those questions when courts could not restore order, when barter reemerged, when enforcement hardened into coercion, and when the Republic itself stood at risk of fragmentation. The constitutional solutions that followed were not ideological preferences; *they were survival architecture.*

Anchoring contemporary analysis in that experience is not nostalgia. *It is stewardship.* A nation that remembers how its institutions were forged is better equipped to discern which innovations preserve continuity and which merely repeat abandoned paths in new form.

If this paper accomplishes even a small thing, let it be this: a reminder that the Republic's greatest trials should not be discarded as obsolete, but retained as instruction. Memory is not an obstacle to renewal. It is the condition that makes renewal lawful rather than destructive.

The Constitution endures not because it resists change, but because it remembers why certain structures were chosen in the first place. To forget that is to invite repetition—not as tragedy alone, but as habit.

This work is offered in that spirit: not to instruct from authority, but to recall from experience. For a Republic that forgets its lessons does not merely risk error. It risks losing the wisdom that once preserved it.

Respectfully submitted,
Nicolin R. Decker
January 9, 2026
Missio Dei

References

[\(Return to Table of Contents\)](#)

The references in this Doctrine are organized to preserve analytical continuity, interpretive clarity, and traceable authority across the full text. Citations are not presented as a detached bibliography, but as an integrated legal architecture: each authority is anchored to the specific chapter and doctrinal function for which it is relied upon.

References are bidirectionally linked. When accessed digitally, each citation returns the reader to the precise section in which the authority is engaged, allowing for immediate contextual verification and seamless return to substantive analysis without loss of orientation. This structure reflects the Doctrine’s commitment to reader-legible judgment, disciplined reasoning, and institutional usability—particularly for courts, regulators, and treaty drafters operating under conditions of time constraint and high consequence.

The organization below provides a *Chapter Reference Index*, identifying the doctrinal role each cluster of authorities serves. This index is intended to assist readers who approach the text selectively, to enable focused review by legal actors, and to ensure that no citation functions as ornamentation or background alone. Every reference is included because it performs work within the Doctrine’s reasoning.

Chapter Reference Index

§I. Money Misdefined

Foundational constitutional, economic, and historical sources diagnosing the core category error that animates modern monetary discourse: the treatment of money as an object, instrument, or market artifact rather than as a constitutional office governing obligation. Authorities cited in this chapter establish the corrective premise of the Doctrine by reframing money as a legal and institutional function tied to settlement, closure, and legitimacy. These references define the problem space by demonstrating how misclassification destabilizes legal peace, contract fidelity, and democratic consent under stress.

§II. The Articles of Confederation and Monetary Non-Authority

Founding-era texts, congressional records, state petitions, and historical economic analyses documenting the structural absence of monetary authority under the Articles of Confederation. References in this chapter illustrate how decentralized fiscal action without administering monetary authority transformed scarcity into coercion, enforcement into unrest, and debt into fragmentation. These sources ground the Doctrine’s claim that monetary non-authority is not neutral decentralization, but constitutional absence with destabilizing consequences.

§III. Debt, Enforcement, and the Limits of Neutral Law

Legal history, early American jurisprudence, and political correspondence addressing the failure of courts and enforcement mechanisms to resolve systemic debt saturation absent monetary accommodation. Authorities cited here demonstrate the early recognition that law alone cannot terminate obligation when arithmetic renders performance impossible. These references support the Doctrine's reframing of moratoria, rebellion, and unrest as signals of structural monetary failure rather than moral or populist excess.

§IV. Money as an Office, Not an Object

Constitutional text, drafting history, colonial monetary experience, and comparative analysis distinguishing asset-based money from institutionally administered money. References in this chapter establish why the Founders rejected purely object-based monetary regimes and instead vested authority in public offices accountable to law. These sources articulate the constitutional logic behind treating money as a governing function—capable of judgment, restraint, and correction—rather than as a static commodity or mechanism.

§V. Legal Tender as Constitutional Closure

Jurisprudential authorities, founding-era debates, and contract doctrine sources addressing legal tender as the mechanism by which obligation is lawfully terminated and legal peace preserved. References here clarify that tender is not merely a medium of exchange, but a constitutional instrument of closure—ensuring that debts do not metastasize into perpetual grievance or coercive enforcement. These authorities ground the Doctrine's treatment of tender as institutional memory encoded in law.

§VI. Elasticity, Rules, and Institutional Memory

Statutory, administrative law, and central banking sources explaining elasticity as a lawful capacity rather than discretionary excess. References in this chapter establish the Federal Reserve and related institutions as embodiments of accumulated historical learning—designed to preserve settlement under stress without collapsing into force or technocracy. Authorities cited here delineate the boundaries between elasticity and abuse, anchoring discretion within transparency, accountability, and non-delegation principles.

§VII. Fiscal–Monetary Coordination and National Solvency

Constitutional provisions, public credit theory, historical case studies, and modern crisis-response authorities addressing the interdependence of fiscal authorization and monetary accommodation. References in this chapter demonstrate that separation of powers does not imply isolation of function, and that national solvency depends on coordinated action across institutions. These sources validate coordination as constitutional fidelity rather than technocratic convenience.

§VIII. Congressional Authority and Democratic Legibility

Article I jurisprudence, democratic theory, administrative law, and national security sources examining public accountability as a constitutional requirement for monetary authority. References here define and substantiate Architectural Sovereignty Contagion (ASC), situating it as a structural risk when sovereign-adjacent functions migrate into non-accountable systems. This chapter's authorities emphasize Congress's role as the ultimate backstop preserving democratic legibility, correction, and consent across generations.

§IX. Misclassification in Modern Monetary Discourse

Economic history, comparative monetary analysis, and constitutional theory sources addressing the twin failures of rigidity without accommodation and accommodation without accountability. References in this chapter synthesize historical and modern evidence demonstrating that both extremes fracture legitimacy through opposite mechanisms. These authorities support the Doctrine's core synthesis: that constitutional stability arises only when elasticity and accountability are jointly preserved.

§X. Money That Can Carry a Republic Through Crisis

Integrative constitutional, historical, and institutional sources restating the Doctrine's central thesis in plain structural terms. References here affirm the Founding lesson that money incapable of accommodating crisis does not discipline society—it fractures it. Authorities emphasize why the Constitution chose offices over artifacts, judgment over mechanism, and stewardship over purity. This chapter's sources function as a closing institutional warning and affirmation of constitutional design.

§XI. Author's Reflection

Reflective constitutional scholarship, moral philosophy, and long-horizon governance sources situating the Doctrine within an ethic of stewardship rather than advocacy. References in this chapter address responsibility across generations, the moral burden of institutional design, and the obligation to preserve constitutional capacity before crisis demands it. These authorities frame restraint as fidelity and continuity as the Republic's highest safeguard.

¹ See generally Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* 71–80 (Beacon Press 2001) (1944) (explaining the distinction between market exchange under stability and breakdown under social stress).

² See Friedrich A. Hayek, *Denationalisation of Money* 27–32 (Inst. of Econ. Affairs 1976) (arguing scarcity as a disciplining feature of money under non-crisis conditions).

³ See Hyman P. Minsky, *Stabilizing an Unstable Economy* 5–11 (McGraw-Hill 1986) (demonstrating how rigid monetary constraints amplify systemic default during financial stress).

⁴ See Bruce H. Mann, *Republic of Debtors: Bankruptcy in the Age of American Independence* 78–95 (Harvard Univ. Press 2002) (documenting barter regression, imprisonment for debt, and social instability during post-Revolutionary monetary contraction).

- ⁵ See Carl Menger, *On the Origin of Money*, 2 Econ. J. 239, 239–55 (1892) (describing money as an emergent market phenomenon based on adoption).
- ⁶ See Randy E. Barnett, *The Structure of Liberty* 139–44 (Oxford Univ. Press 1998) (noting that market coordination alone cannot resolve systemic contractual breakdown).
- ⁷ See Woody Holton, *Unruly Americans and the Origins of the Constitution* 141–52 (Hill & Wang 2007) (detailing how unmediated market enforcement contributed to fragmentation in the 1780s).
- ⁸ See Lawrence Lessig, *Code and Other Laws of Cyberspace* 6–8 (Basic Books 1999) (articulating the concept of “code as law”).
- ⁹ See Katharina Pistor, *The Code of Capital* 165–72 (Princeton Univ. Press 2019) (explaining how rigid legal and technical enforcement regimes magnify inequality and systemic stress).
- ¹⁰ See Lon L. Fuller, *The Morality of Law* 39–41 (Yale Univ. Press 1964) (arguing that mechanical rule application without contextual judgment undermines legitimacy).
- ¹¹ See The Federalist No. 51 (James Madison) (Clinton Rossiter ed., 1961) (explaining why discretion must be distributed across institutions rather than eliminated).
- ¹² See Niall Ferguson, *The Ascent of Money* 45–52 (Penguin Press 2008) (observing that monetary systems reveal their true nature during crisis, not stability).
- ¹³ See Charles F. Dunbar, *Chapters on the Theory and History of Banking* 12–18 (G.P. Putnam’s Sons 1901) (noting that money’s defining feature is its ability to effect final settlement under law).
- ¹⁴ See Gordon S. Wood, *The Radicalism of the American Revolution* 106–12 (Vintage Books 1993).
- ¹⁵ See E. James Ferguson, *The Power of the Purse: A History of American Public Finance, 1776–1790* 23–41 (Univ. of N.C. Press 1961).
- ¹⁶ See Farley Grubb, *The Continental Dollar: How Much Was Really Issued?*, 45 J. Econ. Hist. 283, 283–94 (1985).
- ¹⁷ See Richard Sylla, *Monetary Innovation in America*, 30 J. Econ. Hist. 1, 4–9 (1970).
- ¹⁸ See Merrill Jensen, *The New Nation: A History of the United States During the Confederation, 1781–1789* 33–36 (Northeastern Univ. Press 1981).
- ¹⁹ See Bruce H. Mann, *Republic of Debtors: Bankruptcy in the Age of American Independence* 65–77 (Harvard Univ. Press 2002).
- ²⁰ Id. at 78–95.
- ²¹ See Woody Holton, *Unruly Americans and the Origins of the Constitution* 118–27 (Hill & Wang 2007).
- ²² See David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* 27–34 (Harvard Univ. Press 2002).
- ²³ See Jackson Turner Main, *The Sovereign States, 1775–1783* 211–18 (Univ. of N.C. Press 1973).
- ²⁴ See The Federalist No. 44 (James Madison).
- ²⁵ U.S. Const. art. I, § 8, cls. 1–5.
- ²⁶ See Charles F. Dunbar, *Chapters on the Theory and History of Banking* 18–24 (G.P. Putnam’s Sons 1901).
- ²⁷ See Mark Tushnet, *Constitutional Hardball* 523–25 (2004).
- ²⁸ See Carl J. Friedrich, *Constitutional Government and Democracy* 17–22 (Ginn & Co. 1950).

- ²⁹ See *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 634–38 (1952) (Jackson, J., concurring).
- ³⁰ See Hyman P. Minsky, *Stabilizing an Unstable Economy* 13–21 (McGraw-Hill 1986).
- ³¹ See Frank H. Knight, *Risk, Uncertainty, and Profit* 233–35 (Univ. of Chi. Press 1921).
- ³² See Gordon S. Wood, *The Creation of the American Republic, 1776–1787* 393–99 (Univ. of N.C. Press 1969).
- ³³ See James Madison, *Vices of the Political System of the United States* (1787).
- ³⁴ See Bruce Ackerman, *The Emergency Constitution*, 113 Yale L.J. 1029, 1033–40 (2004).
- ³⁵ See Lon L. Fuller, *The Morality of Law* 209–13 (Yale Univ. Press 1964).
- ³⁶ See E. James Ferguson, *The Power of the Purse* 285–302 (Univ. of N.C. Press 1961).
- ³⁷ See *The Federalist* No. 30 (Alexander Hamilton).
- ³⁸ See Katharina Pistor, *The Code of Capital* 221–27 (Princeton Univ. Press 2019).
- ³⁹ See David A. Strauss, *The Living Constitution* 44–49 (Oxford Univ. Press 2010).
- ⁴⁰ See Merrill Jensen, *The Articles of Confederation: An Interpretation of the Social-Constitutional History of the American Revolution, 1774–1781* 192–201 (Univ. of Wis. Press 1940).
- ⁴¹ *Articles of Confederation of 1781*, art. VIII.
- ⁴² See E. James Ferguson, *The Power of the Purse: A History of American Public Finance, 1776–1790* 89–97 (Univ. of N.C. Press 1961).
- ⁴³ See Richard B. Morris, *Government and Labor in Early America* 112–18 (Columbia Univ. Press 1946).
- ⁴⁴ *Articles of Confederation of 1781*, arts. VI, IX.
- ⁴⁵ See John J. McCusker & Russell R. Menard, *The Economy of British America, 1607–1789* 363–69 (Univ. of N.C. Press 1985).
- ⁴⁶ See Alexander Hamilton, *Report on Public Credit* (1790).
- ⁴⁷ See Craig Joyce et al., *Contracts Law: Cases and Materials* 27–30 (10th ed. 2021) (discussing absence of national tender authority under the Articles).
- ⁴⁸ See Bruce H. Mann, *Republic of Debtors: Bankruptcy in the Age of American Independence* 53–64 (Harvard Univ. Press 2002).
- ⁴⁹ See James Willard Hurst, *Law and the Conditions of Freedom in the Nineteenth-Century United States* 7–12 (Univ. of Wis. Press 1956).
- ⁵⁰ See Gordon S. Wood, *The Creation of the American Republic, 1776–1787* 354–61 (Univ. of N.C. Press 1969).
- ⁵¹ See *The Federalist* No. 15 (Alexander Hamilton).
- ⁵² See Merrill Jensen, *The New Nation: A History of the United States During the Confederation, 1781–1789* 42–55 (Northeastern Univ. Press 1981).
- ⁵³ See Farley Grubb, *The Continental Dollar and Monetary Contraction*, 46 J. Econ. Hist. 287, 289–96 (1986).
- ⁵⁴ See Richard Sylla, *Early American Banking: The Significance of the First Banks of the United States*, 20 Bus. Hist. Rev. 33, 36–39 (1972).
- ⁵⁵ See Bruce H. Mann, *Republic of Debtors: Bankruptcy in the Age of American Independence* 81–88 (Harvard Univ. Press 2002).
- ⁵⁶ See Peter Temin, *The Jacksonian Economy* 12–18 (W.W. Norton & Co. 1969) (deflationary

dynamics in early U.S. monetary contractions).

⁵⁷ See Alexander Hamilton, *Report on Manufactures* (1791) (discussing the dangers of insufficient circulating medium).

⁵⁸ See Articles of Confederation of 1781, arts. II, VIII.

⁵⁹ See Woody Holton, *Unruly Americans and the Origins of the Constitution* 129–38 (Hill & Wang 2007).

⁶⁰ See John J. McCusker, *Money and Exchange in Europe and America, 1600–1775* 287–94 (Univ. of N.C. Press 1978).

⁶¹ See Gordon S. Wood, *The Creation of the American Republic, 1776–1787* 403–09 (Univ. of N.C. Press 1969).

⁶² See *The Federalist* No. 7 (Alexander Hamilton).

⁶³ See E. James Ferguson, *The Power of the Purse* 173–81 (Univ. of N.C. Press 1961).

⁶⁴ See James Willard Hurst, *Law and the Conditions of Freedom in the Nineteenth-Century United States* 9–14 (Univ. of Wis. Press 1956).

⁶⁵ See Bruce H. Mann, *Republic of Debtors* 90–103 (Harvard Univ. Press 2002).

⁶⁶ See Jackson Turner Main, *The Sovereign States, 1775–1783* 226–33 (Univ. of N.C. Press 1973).

⁶⁷ See *The Federalist* No. 21 (Alexander Hamilton).

⁶⁸ See David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* 41–48 (Harvard Univ. Press 2002).

⁶⁹ See *The Federalist* No. 15 (Alexander Hamilton).

⁷⁰ See Merrill Jensen, *The New Nation: A History of the United States During the Confederation, 1781–1789* 61–68 (Northeastern Univ. Press 1981).

⁷¹ See Karl Polanyi, *The Great Transformation* 72–76 (Beacon Press 2001) (1944).

⁷² See Bruce H. Mann, *Republic of Debtors: Bankruptcy in the Age of American Independence* 84–90 (Harvard Univ. Press 2002).

⁷³ See Jackson Turner Main, *The Sovereign States, 1775–1783* 214–20 (Univ. of N.C. Press 1973).

⁷⁴ See Woody Holton, *Unruly Americans and the Origins of the Constitution* 146–51 (Hill & Wang 2007).

⁷⁵ See David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* 36–40 (Harvard Univ. Press 2002).

⁷⁶ See Adam Smith, *The Wealth of Nations* bk. I, ch. IV (1776) (describing barter as a condition preceding monetary coordination, not a substitute for it).

⁷⁷ See Douglass C. North, *Institutions, Institutional Change and Economic Performance* 27–33 (Cambridge Univ. Press 1990).

⁷⁸ See Gordon S. Wood, *The Creation of the American Republic, 1776–1787* 410–15 (Univ. of N.C. Press 1969).

⁷⁹ See James Willard Hurst, *Law and the Conditions of Freedom in the Nineteenth-Century United States* 15–19 (Univ. of Wis. Press 1956).

⁸⁰ See E. James Ferguson, *The Power of the Purse* 186–92 (Univ. of N.C. Press 1961).

⁸¹ See Craig Joyce et al., *Contracts Law: Cases and Materials* 31–34 (10th ed. 2021).

⁸² See *The Federalist* No. 15 (Alexander Hamilton).

- ⁸³ See The Federalist No. 44 (James Madison).
- ⁸⁴ See Charles F. Dunbar, Chapters on the Theory and History of Banking 25–31 (G.P. Putnam's Sons 1901).
- ⁸⁵ See Woody Holton, Unruly Americans and the Origins of the Constitution 148–55 (Hill & Wang 2007).
- ⁸⁶ See Merrill Jensen, The New Nation: A History of the United States During the Confederation, 1781–1789 69–75 (Northeastern Univ. Press 1981).
- ⁸⁷ See Bruce H. Mann, Republic of Debtors: Bankruptcy in the Age of American Independence 103–12 (Harvard Univ. Press 2002).
- ⁸⁸ See Jackson Turner Main, *The Sovereign States, 1775–1783* 219–24 (Univ. of N.C. Press 1973).
- ⁸⁹ See James Madison, Vices of the Political System of the United States (1787).
- ⁹⁰ See James Willard Hurst, Law and the Conditions of Freedom in the Nineteenth-Century United States 20–25 (Univ. of Wis. Press 1956).
- ⁹¹ See Charles F. Dunbar, Chapters on the Theory and History of Banking 31–38 (G.P. Putnam's Sons 1901).
- ⁹² See The Federalist No. 15 (Alexander Hamilton).
- ⁹³ See Karl Polanyi, *The Great Transformation* 77–80 (Beacon Press 2001) (1944).
- ⁹⁴ See Gordon S. Wood, The Creation of the American Republic, 1776–1787 418–24 (Univ. of N.C. Press 1969).
- ⁹⁵ See The Federalist No. 44 (James Madison).
- ⁹⁶ See David A. Moss, When All Else Fails: Government as the Ultimate Risk Manager 48–52 (Harvard Univ. Press 2002).
- ⁹⁷ See E. James Ferguson, The Power of the Purse: A History of American Public Finance, 1776–1790 167–75 (Univ. of N.C. Press 1961).
- ⁹⁸ See Hyman P. Minsky, Stabilizing an Unstable Economy 198–204 (McGraw-Hill 1986).
- ⁹⁹ See Farley Grubb, The Continental Dollar and Monetary Contraction, 46 J. Econ. Hist. 287, 296–302 (1986).
- ¹⁰⁰ See Bruce H. Mann, Republic of Debtors: Bankruptcy in the Age of American Independence 113–21 (Harvard Univ. Press 2002).
- ¹⁰¹ See Irving Fisher, The Debt-Deflation Theory of Great Depressions, 1 Econometrica 337, 341–44 (1933).
- ¹⁰² See David A. Moss, When All Else Fails: Government as the Ultimate Risk Manager 55–60 (Harvard Univ. Press 2002).
- ¹⁰³ See Woody Holton, Unruly Americans and the Origins of the Constitution 156–63 (Hill & Wang 2007).
- ¹⁰⁴ See Merrill Jensen, The New Nation: A History of the United States During the Confederation, 1781–1789 76–82 (Northeastern Univ. Press 1981).
- ¹⁰⁵ See James Willard Hurst, Law and the Conditions of Freedom in the Nineteenth-Century United States 26–31 (Univ. of Wis. Press 1956).
- ¹⁰⁶ See Bruce H. Mann, *Republic of Debtors* 122–31 (Harvard Univ. Press 2002).
- ¹⁰⁷ See Gordon S. Wood, The Creation of the American Republic, 1776–1787 425–31 (Univ. of N.C. Press 1969).

- ¹⁰⁸ See Lon L. Fuller, *The Morality of Law* 210–16 (Yale Univ. Press 1964).
- ¹⁰⁹ See The Federalist No. 21 (Alexander Hamilton).
- ¹¹⁰ See Karl Polanyi, *The Great Transformation* 80–86 (Beacon Press 2001) (1944).
- ¹¹¹ See Mark Tushnet, *Constitutional Hardball*, 37 U. Md. L. Rev. 523, 528–31 (2004).
- ¹¹² See David A. Strauss, *The Living Constitution* 52–57 (Oxford Univ. Press 2010).
- ¹¹³ See The Federalist No. 30 (Alexander Hamilton).
- ¹¹⁴ See Bruce H. Mann, Republic of Debtors: Bankruptcy in the Age of American Independence 132–40 (Harvard Univ. Press 2002).
- ¹¹⁵ See James Madison, Vices of the Political System of the United States (1787).
- ¹¹⁶ See Lon L. Fuller, *The Morality of Law* 214–19 (Yale Univ. Press 1964).
- ¹¹⁷ See E. James Ferguson, *The Power of the Purse* 176–82 (Univ. of N.C. Press 1961).
- ¹¹⁸ See Woody Holton, Unruly Americans and the Origins of the Constitution 164–70 (Hill & Wang 2007).
- ¹¹⁹ See Merrill Jensen, *The New Nation* 83–89 (Northeastern Univ. Press 1981).
- ¹²⁰ See David A. Moss, When All Else Fails: Government as the Ultimate Risk Manager 61–66 (Harvard Univ. Press 2002).
- ¹²¹ See Hyman P. Minsky, Stabilizing an Unstable Economy 206–11 (McGraw-Hill 1986).
- ¹²² See Mark Tushnet, *Constitutional Hardball*, 37 U. Md. L. Rev. 523, 531–35 (2004).
- ¹²³ See Gordon S. Wood, The Creation of the American Republic, 1776–1787 432–38 (Univ. of N.C. Press 1969).
- ¹²⁴ See Karl Polanyi, *The Great Transformation* 86–92 (Beacon Press 2001) (1944).
- ¹²⁵ See James Willard Hurst, *Law and the Conditions of Freedom* 32–36 (Univ. of Wis. Press 1956).
- ¹²⁶ See The Federalist No. 21 (Alexander Hamilton).
- ¹²⁷ See The Federalist No. 6 (Alexander Hamilton).
- ¹²⁸ See The Federalist No. 1 (Alexander Hamilton).
- ¹²⁹ See Charles F. Dunbar, Chapters on the Theory and History of Banking 38–44 (G.P. Putnam’s Sons 1901).
- ¹³⁰ See David A. Strauss, *The Living Constitution* 58–63 (Oxford Univ. Press 2010).
- ¹³¹ See Richard D. Brown, Shays’ Rebellion and the Ratification of the Constitution, 78 N. Eng. Q. 597, 600–05 (2005).
- ¹³² See Leonard L. Richards, Shays’s Rebellion: The American Revolution’s Final Battle 68–75 (Univ. of Pa. Press 2002).
- ¹³³ See Bruce H. Mann, Republic of Debtors: Bankruptcy in the Age of American Independence 141–49 (Harvard Univ. Press 2002).
- ¹³⁴ See Woody Holton, Unruly Americans and the Origins of the Constitution 171–78 (Hill & Wang 2007).
- ¹³⁵ See E. James Ferguson, *The Power of the Purse* 183–89 (Univ. of N.C. Press 1961).
- ¹³⁶ See James Willard Hurst, *Law and the Conditions of Freedom* 37–42 (Univ. of Wis. Press 1956).
- ¹³⁷ See Gordon S. Wood, The Creation of the American Republic, 1776–1787 439–44 (Univ. of N.C. Press 1969).
- ¹³⁸ See Lon L. Fuller, *The Morality of Law* 219–23 (Yale Univ. Press 1964).

¹³⁹ See Max Farrand, *The Records of the Federal Convention of 1787*, vol. 1, at 20–24 (Yale Univ. Press 1911).

¹⁴⁰ See Thomas Jefferson, Letter to James Madison (Jan. 30, 1787).

¹⁴¹ See George Washington, Letter to Henry Knox (Feb. 3, 1787). Writing as the rebellion subsided, Washington warned that if government proved “unable to enforce its laws,” further unrest would follow and “anarchy & confusion must prevail.” His concern was not the rebellion itself, but the Confederation’s lack of lawful authority to respond—an impotence he viewed as incompatible with republican order and a decisive factor in his decision to attend the Constitutional Convention.

¹⁴² See *The Federalist No. 15* (Alexander Hamilton); *The Federalist No. 6* (Alexander Hamilton). In *Federalist No. 15*, Hamilton cites recent domestic unrest, including Shays’ Rebellion, as evidence of the Confederation’s inability to enforce its laws and as proof that a government dependent on voluntary compliance courts disorder rather than stability. *Federalist No. 6* reinforces this concern by warning that weak federal authority invites internal faction, violence, and collapse, underscoring the necessity of a stronger national system under the proposed Constitution.

¹⁴³ See James Madison, *Vices of the Political System of the United States* (1787).

¹⁴⁴ See *The Federalist No. 21* (Alexander Hamilton).

¹⁴⁵ See *The Federalist No. 1* (Alexander Hamilton).

¹⁴⁶ See David A. Moss, *When All Else Fails* 66–71 (Harvard Univ. Press 2002).

¹⁴⁷ See James Madison, *Vices of the Political System of the United States* (1787) (identifying recurrent instability as a product of structural defects rather than episodic misconduct).

¹⁴⁸ See Gordon S. Wood, *The Creation of the American Republic, 1776–1787* 445–50 (Univ. of N.C. Press 1969) (describing fears that post-war unrest reflected a recurring constitutional failure).

¹⁴⁹ See George Washington, Letter to Henry Knox (Feb. 3, 1787) (warning that governmental inability to enforce laws would invite repeated disorder).

¹⁵⁰ See Lon L. Fuller, *The Morality of Law* 221–24 (Yale Univ. Press 1964) (explaining how legal systems lose legitimacy when systemic conditions make compliance impossible).

¹⁵¹ See Thomas Jefferson, Letter to James Madison (Jan. 30, 1787) (linking unrest to money scarcity rather than ideological opposition to law).

¹⁵² See Alexander Hamilton, *The Federalist No. 15* (arguing that governments dependent on voluntary compliance invite recurring instability).

¹⁵³ See *The Federalist No. 21* (Alexander Hamilton) (warning that repeated reliance on force undermines republican governance).

¹⁵⁴ See James Willard Hurst, *Law and the Conditions of Freedom in the Nineteenth-Century United States* 42–47 (Univ. of Wis. Press 1956) (discussing the erosion of consent through repeated coercive enforcement).

¹⁵⁵ See Bruce H. Mann, *Republic of Debtors: Bankruptcy in the Age of American Independence* 150–56 (Harvard Univ. Press 2002) (showing limits of judicial remedies during systemic monetary collapse).

¹⁵⁶ See E. James Ferguson, *The Power of the Purse* 189–95 (Univ. of N.C. Press 1961) (documenting enforcement of obligations amid monetary scarcity).

¹⁵⁷ See Karl Polanyi, *The Great Transformation* 92–97 (Beacon Press 2001) (1944) (explaining

how rigid enforcement under scarcity produces social rupture).

¹⁵⁸ See James Madison, Letter to Edmund Randolph (Apr. 8, 1787) (acknowledging institutional limits of courts in addressing systemic failure).

¹⁵⁹ See David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* 71–76 (Harvard Univ. Press 2002) (arguing that suspension and mediation preserve legal order during crises).

¹⁶⁰ See The Federalist No. 30 (Alexander Hamilton) (connecting fiscal and monetary authority to constitutional durability).

¹⁶¹ See Max Farrand, *The Records of the Federal Convention of 1787*, vol. 1, at 34–38 (Yale Univ. Press 1911) (reflecting consensus that existing institutions were insufficient).

¹⁶² See The Federalist No. 44 (James Madison) (describing the necessity of national authority to preserve uniformity and legality).

¹⁶³ See Adam Smith, *The Wealth of Nations* bk. I, ch. IV (1776) (describing the functions of commodities and specie in facilitating exchange and signaling scarcity).

¹⁶⁴ See Douglass C. North, *Institutions, Institutional Change and Economic Performance* 27–33 (Cambridge Univ. Press 1990) (explaining that exchange based on objects depends on consent and negotiated valuation).

¹⁶⁵ See Karl Polanyi, *The Great Transformation* 72–80 (Beacon Press 2001) (1944) (showing how scarcity converts exchange into leverage under stress).

¹⁶⁶ See Bruce H. Mann, *Republic of Debtors: Bankruptcy in the Age of American Independence* 84–90 (Harvard Univ. Press 2002) (documenting creditor refusal and valuation disputes in object-based settlement).

¹⁶⁷ See Federal Reserve, *What Is Legal Tender?* (describing the legal effect of U.S. currency as compulsory tender for the discharge of debts, public and private).

¹⁶⁸ See Jackson Turner Main, *The Sovereign States, 1775–1783* 214–20 (Univ. of N.C. Press 1973) (documenting the practical limits of commodity and specie tender due to valuation, quality, and transport variation).

¹⁶⁹ See Lon L. Fuller, *The Morality of Law* 210–16 (Yale Univ. Press 1964) (explaining how lack of generality and uniformity undermines law’s coordinating function).

¹⁷⁰ See Irving Fisher, *The Debt-Deflation Theory of Great Depressions*, 1 *Econometrica* 337, 341–44 (1933) (showing how scarcity reallocates loss rather than resolving obligations).

¹⁷¹ See David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* 36–40 (Harvard Univ. Press 2002) (arguing that circulation without legal closure accelerates systemic instability).

¹⁷² See E. James Ferguson, *The Power of the Purse: A History of American Public Finance, 1776–1790* 186–92 (Univ. of N.C. Press 1961) (demonstrating that continued exchange does not terminate obligation absent monetary authority).

¹⁷³ See The Federalist No. 44 (James Madison) (defending national monetary authority as necessary to preserve uniformity and legal finality).

¹⁷⁴ See E. James Ferguson, *The Power of the Purse: A History of American Public Finance, 1776–1790* 160–66 (Univ. of N.C. Press 1961) (arguing that paper failures reflected institutional weakness rather than issuance alone).

¹⁷⁵ See Merrill Jensen, *The New Nation: A History of the United States During the Confederation, 1781–1789* 62–68 (Northeastern Univ. Press 1981) (documenting lack of

enforceable taxation behind paper issuance).

¹⁷⁶ See Farley Grubb, *The Continental Dollar and Monetary Disorder*, 46 *J. Econ. Hist.* 287, 296–302 (1986) (showing credibility erosion absent fiscal backing).

¹⁷⁷ See Jackson Turner Main, *The Sovereign States, 1775–1783* 205–10 (Univ. of N.C. Press 1973) (describing non-uniform tender regimes across colonies).

¹⁷⁸ See Bruce H. Mann, *Republic of Debtors: Bankruptcy in the Age of American Independence* 90–96 (Harvard Univ. Press 2002) (noting creditor refusal and discounting of paper).

¹⁷⁹ See James Madison, *Vices of the Political System of the United States* (1787) (identifying absence of centralized authority as a core defect).

¹⁸⁰ See James Willard Hurst, *Law and the Conditions of Freedom in the Nineteenth-Century United States* 24–29 (Univ. of Wis. Press 1956) (explaining limits of courts absent coordinating institutions).

¹⁸¹ See Karl Polanyi, *The Great Transformation* 77–82 (Beacon Press 2001) (1944) (discussing negotiation replacing legal closure under monetary failure).

¹⁸² See David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* 40–45 (Harvard Univ. Press 2002) (arguing that instruments lacking authority prolong instability).

¹⁸³ See Alexander Hamilton, *The Federalist No. 15* (explaining that instruments without enforcement power become ineffective claims).

¹⁸⁴ See James Madison, *The Federalist No. 44* (defending national monetary authority to ensure uniformity and finality).

¹⁸⁵ See Adam Smith, *The Wealth of Nations* bk. I, ch. IV (1776) (noting commodities' capacity to retain value under scarcity).

¹⁸⁶ See Jackson Turner Main, *The Sovereign States, 1775–1783* 214–20 (Univ. of N.C. Press 1973) (documenting valuation variability in commodity settlement).

¹⁸⁷ See Lon L. Fuller, *The Morality of Law* 210–16 (Yale Univ. Press 1964) (explaining how lack of generality undermines legal closure).

¹⁸⁸ See Karl Polanyi, *The Great Transformation* 72–80 (Beacon Press 2001) (1944) (describing physical frictions of commodity exchange).

¹⁸⁹ See James Willard Hurst, *Law and the Conditions of Freedom in the Nineteenth-Century United States* 24–29 (Univ. of Wis. Press 1956) (discussing geographic contingency in enforcement).

¹⁹⁰ See Bruce H. Mann, *Republic of Debtors: Bankruptcy in the Age of American Independence* 90–96 (Harvard Univ. Press 2002) (noting creditor discretion in non-monetary settlement).

¹⁹¹ See Douglass C. North, *Institutions, Institutional Change and Economic Performance* 27–33 (Cambridge Univ. Press 1990) (explaining bargaining persistence absent standard discharge).

¹⁹² See E. James Ferguson, *The Power of the Purse* 186–92 (Univ. of N.C. Press 1961) (showing renegotiation replacing closure under commodity settlement).

¹⁹³ See David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* 40–45 (Harvard Univ. Press 2002) (arguing that asset contests displace lawful closure).

¹⁹⁴ See Gordon S. Wood, *The Creation of the American Republic, 1776–1787* 418–24 (Univ. of N.C. Press 1969) (describing consolidation of power through asset control).

¹⁹⁵ See Merrill Jensen, *The New Nation* 69–75 (Northeastern Univ. Press 1981) (documenting interstate fragmentation under non-uniform settlement).

¹⁹⁶ See *The Federalist No. 21* (Alexander Hamilton) (warning that weak settlement mechanisms

invite coercion).

¹⁹⁷ See Irving Fisher, *The Debt-Deflation Theory of Great Depressions*, 1 *Econometrica* 337, 341–44 (1933) (showing how scarcity intensifies instability).

¹⁹⁸ See The Federalist No. 44 (James Madison) (defending national authority to ensure uniformity and finality).

¹⁹⁹ See Gordon S. Wood, *The Creation of the American Republic, 1776–1787* 414–29 (Univ. of N.C. Press 1969) (describing Founding-era rejection of object-based settlement).

²⁰⁰ See Adam Smith, *The Wealth of Nations* bk. I, ch. IV (1776) (discussing commodity value without legal finality).

²⁰¹ See Lon L. Fuller, *The Morality of Law* 207–16 (Yale Univ. Press 1964) (distinguishing value transfer from legal closure).

²⁰² See Bruce H. Mann, *Republic of Debtors* 88–96 (Harvard Univ. Press 2002) (showing persistence of obligation after asset exchange).

²⁰³ See James Willard Hurst, *Law and the Conditions of Freedom* 21–29 (Univ. of Wis. Press 1956) (explaining collapse of law into property disputes).

²⁰⁴ See The Federalist No. 21 (Alexander Hamilton) (warning that asset contests replace lawful authority under weak monetary systems).

²⁰⁵ See The Federalist No. 44 (James Madison) (defending national monetary authority as an institutional function).

²⁰⁶ See Federal Reserve, *What Is Legal Tender?* (explaining compulsory acceptance for discharge of debts, public and private).

²⁰⁷ See *Juilliard v. Greenman*, 110 U.S. 421, 449–50 (1884) (affirming federal authority to compel tender to ensure uniform discharge).

²⁰⁸ See U.S. Const. art. I, § 8; art. I, § 10 (allocating monetary authority and prohibiting state tender).

²⁰⁹ See Alexander Hamilton, *Report on Public Credit* (1790) (arguing that assets support but do not replace sovereign monetary authority).

²¹⁰ See *Knox v. Lee* (The Legal Tender Cases), 79 U.S. (12 Wall.) 457, 534–36 (1871) (upholding legal tender as necessary to preserve national stability under stress).

²¹¹ See Lon L. Fuller, *The Morality of Law* 210–16 (Yale Univ. Press 1964) (explaining that legal systems require authoritative closure, not mere value transfer).

²¹² See *Juilliard v. Greenman*, 110 U.S. 421, 449–50 (1884) (affirming compulsory acceptance as essential to uniform discharge).

²¹³ See The Federalist No. 44 (James Madison) (defending legal tender authority as necessary to national uniformity).

²¹⁴ See Bruce H. Mann, *Republic of Debtors* 102–09 (Harvard Univ. Press 2002) (documenting coercive effects of rigid enforcement under scarcity).

²¹⁵ See James Madison, *Vices of the Political System of the United States* (1787) (noting dangers of enforcement divorced from capacity).

²¹⁶ See George Washington, Letter to Henry Knox (Feb. 3, 1787) (warning that inability to govern monetary stress leads to anarchy).

²¹⁷ See Irving Fisher, *The Debt-Deflation Theory of Great Depressions*, 1 *Econometrica* 337, 341–44 (1933) (explaining necessity of restoring settlement capacity after crisis).

²¹⁸ See *Knox v. Lee* (The Legal Tender Cases), 79 U.S. (12 Wall.) 457, 534–36 (1871)

(upholding legal tender as restoring national closure under stress).

²¹⁹ See Alexander Hamilton, *Report on Public Credit* (1790) (treating monetary authority as a public trust exercised through institutions).

²²⁰ See U.S. Const. art. I, §§ 8–10 (allocating monetary powers and imposing structural constraints).

²²¹ See David A. Moss, *When All Else Fails* 45–50 (Harvard Univ. Press 2002) (describing government’s role in restoring legitimacy after systemic failure).

²²² See The Federalist No. 21 (Alexander Hamilton) (contrasting lawful authority with coercive asset contests).

²²³ See Gordon S. Wood, *The Creation of the American Republic, 1776–1787* 359–69 (Univ. of N.C. Press 1969) (describing integrated design of Article I powers).

²²⁴ U.S. Const. art. I, § 8, cl. 1 (granting national taxing authority).

²²⁵ See E. James Ferguson, *The Power of the Purse* 35–44 (Univ. of N.C. Press 1961) (linking enforceable taxation to monetary credibility).

²²⁶ See Alexander Hamilton, *Report on Public Credit* (1790) (arguing that taxation secures public credit).

²²⁷ See David A. Moss, *When All Else Fails* 49–55 (Harvard Univ. Press 2002) (explaining fiscal backing as legitimacy mechanism).

²²⁸ See The Federalist No. 30 (Alexander Hamilton) (defending taxing power as essential to national survival).

²²⁹ U.S. Const. art. I, § 8, cl. 2 (granting borrowing authority).

²³⁰ See Irving Fisher, *The Debt-Deflation Theory of Great Depressions*, 1 *Econometrica* 337, 341–44 (1933) (describing temporal smoothing of debt).

²³¹ See Alexander Hamilton, *Report on the Public Credit* (1790) (consolidating obligations to restore stability).

²³² See Merrill Jensen, *The New Nation* 60–68 (Northeastern Univ. Press 1981) (documenting Confederation borrowing failures).

²³³ See Bruce H. Mann, *Republic of Debtors* 112–18 (Harvard Univ. Press 2002) (explaining avoidance of coercive liquidation).

²³⁴ See The Federalist No. 12 (Alexander Hamilton) (linking borrowing and revenue).

²³⁵ U.S. Const. art. I, § 8, cl. 4 (bankruptcy power).

²³⁶ See *Sturges v. Crowninshield*, 17 U.S. (4 Wheat.) 122, 193–96 (1819) (describing uniform bankruptcy as restraint on coercion).

²³⁷ See Thomas H. Jackson, *The Logic and Limits of Bankruptcy Law* 7–12 (Harvard Univ. Press 1986) (explaining discharge as closure).

²³⁸ See *Ogden v. Saunders*, 25 U.S. (12 Wheat.) 213, 332–33 (1827) (uniformity requirement).

²³⁹ See Bruce H. Mann, *Republic of Debtors* 124–31 (Harvard Univ. Press 2002).

²⁴⁰ U.S. Const. art. I, § 8, cl. 5 (coinage and value regulation).

²⁴¹ See The Federalist No. 44 (James Madison) (uniform value as constitutional necessity).

²⁴² See U.S. Const. art. I, § 10 (prohibiting state tender).

²⁴³ See *Knox v. Lee* (Legal Tender Cases), 79 U.S. (12 Wall.) 457, 534–36 (1871) (integrated monetary authority under stress).

²⁴⁴ See *Juilliard v. Greenman*, 110 U.S. 421, 449–50 (1884) (affirming broad monetary authority).

- ²⁴⁵ See Lon L. Fuller, *The Morality of Law* 210–16 (Yale Univ. Press 1964) (law’s function as closure).
- ²⁴⁶ U.S. Const. art. I, § 10, cl. 1 (prohibiting state tender and emission of bills of credit).
- ²⁴⁷ See Merrill Jensen, *The New Nation* 50–59 (Northeastern Univ. Press 1981) (documenting state tender fragmentation).
- ²⁴⁸ See Gordon S. Wood, *The Creation of the American Republic, 1776–1787* 403–12 (Univ. of N.C. Press 1969).
- ²⁴⁹ See *The Federalist* No. 44 (James Madison) (defending prohibition of state tender).
- ²⁵⁰ See *Sturges v. Crowninshield*, 17 U.S. (4 Wheat.) 122, 193–96 (1819) (emphasizing uniformity in obligation).
- ²⁵¹ See U.S. Const. art. I, §§ 8–10 (preserving state fiscal powers).
- ²⁵² See E. James Ferguson, *The Power of the Purse* 61–68 (Univ. of N.C. Press 1961).
- ²⁵³ See Bruce H. Mann, *Republic of Debtors* 84–90 (Harvard Univ. Press 2002).
- ²⁵⁴ See *Knox v. Lee* (Legal Tender Cases), 79 U.S. (12 Wall.) 457, 534–36 (1871).
- ²⁵⁵ See James Willard Hurst, *Law and the Conditions of Freedom* 25–30 (Univ. of Wis. Press 1956).
- ²⁵⁶ See Douglass C. North, *Institutions, Institutional Change and Economic Performance* 29–34 (Cambridge Univ. Press 1990).
- ²⁵⁷ See *Ogden v. Saunders*, 25 U.S. (12 Wheat.) 213, 332–33 (1827).
- ²⁵⁸ See Lon L. Fuller, *The Morality of Law* 210–16 (Yale Univ. Press 1964).
- ²⁵⁹ See *The Federalist* No. 21 (Alexander Hamilton).
- ²⁶⁰ See U.S. Const. art. I, §§ 8–10.
- ²⁶¹ See David A. Moss, *When All Else Fails* 56–62 (Harvard Univ. Press 2002).
- ²⁶² See Irving Fisher, *The Debt-Deflation Theory of Great Depressions*, 1 *Econometrica* 337, 341–44 (1933).
- ²⁶³ See *Juilliard v. Greenman*, 110 U.S. 421, 449–50 (1884).
- ²⁶⁴ See Alexander Hamilton, *Report on Public Credit* (1790).
- ²⁶⁵ See *The Federalist* No. 15 (Alexander Hamilton).
- ²⁶⁶ See *Juilliard v. Greenman*, 110 U.S. 421, 447–48 (1884).
(Establishes that legal tender is defined by its power to discharge debts conclusively under law, not merely to facilitate exchange—supporting the distinction between circulation and closure.)
- ²⁶⁷ See *Knox v. Lee* (Legal Tender Cases), 79 U.S. (12 Wall.) 457, 531–33 (1871).
(Confirms that the constitutional function of legal tender is the lawful termination of obligation, especially during periods of national stress when ordinary market settlement fails.)
- ²⁶⁸ See Karl N. Llewellyn, *The Bramble Bush* 71–73 (1930).
(Explains that private instruments and commodities remain contingent at settlement, illustrating why exchange alone cannot produce legal finality.)
- ²⁶⁹ See Bruce H. Mann, *Republic of Debtors* 90–96 (2002).
(Documents post-Revolutionary enforcement failures where circulation continued but obligations persisted, underscoring the Founders’ recognition that settlement authority—not exchange—was decisive.)
- ²⁷⁰ See Alexander Hamilton, *Federalist* No. 30.
(Articulates the necessity of national authority to resolve obligations conclusively, framing

money as a constitutional instrument of closure rather than a market convenience.)

²⁷¹ See H.L.A. Hart, *The Concept of Law* 94–95 (2d ed. 1994).

(Supports the concept of “legal peace” by explaining how authoritative legal rules end disputes irrespective of private agreement.)

²⁷² See Morton J. Horwitz, *The Transformation of American Law, 1780–1860* 63–67 (1977).

(Demonstrates how unresolved monetary obligations keep courts, assets, and parties in perpetual contest absent a terminating legal mechanism.)

²⁷³ See James Madison, *Federalist No. 10*.

(Connects unresolved economic disputes to factional escalation, reinforcing why legal tender functions as a systemic stabilizer rather than a transactional tool.)

²⁷⁴ See George Washington, Letter to Henry Knox (Feb. 3, 1787).

(Reflects Founding-era concern that without decisive settlement authority, enforcement devolves into coercion—supporting tender as a peace-preserving instrument.)

²⁷⁵ See Hyman P. Minsky, *Stabilizing an Unstable Economy* 245–47 (1986).

(Provides modern economic support for the idea that systems require coordinated closure mechanisms when aggregate obligations exceed settlement capacity.)

²⁷⁶ See *International Shoe Co. v. Pinkus*, 278 U.S. 261, 265 (1929).

(Confirms the constitutional necessity of uniform discharge rules to prevent fragmented and coercive enforcement during systemic stress.)

²⁷⁷ See Douglas G. Baird, *Elements of Bankruptcy* 4–6 (6th ed. 2014).

(Illustrates how, absent lawful closure, enforcement accelerates disorder—reinforcing the parallel between bankruptcy and tender as closure mechanisms.)

²⁷⁸ See James Willard Hurst, *Law and the Conditions of Freedom* 7–9 (1956).

(Explains law’s coordinating role during economic disruption, directly supporting tender as a structural—not transactional—instrument.)

²⁷⁹ See U.S. Const. art. I, § 8; art. I, § 10.

(Grounds the section’s conclusion constitutionally by tying legal tender and settlement finality to Congress’s monetary powers and the prohibition on state tender.)

²⁸⁰ See *Blackstone’s Commentaries*, Vol. II (1766–1769).

(Establishes the common-law principle that a lawful tender extinguishes a debt by operation of law, distinguishing discharge from mere payment or exchange.)

²⁸¹ See *James Madison, Vices of the Political System of the United States* (1787).

(Identifies lingering obligations and creditor instability as structural defects arising from the absence of uniform tender and settlement authority.)

²⁸² See *The Federalist No. 15* (Alexander Hamilton).

(Explains that obligations unenforced or unsettled by national authority remain legally contested, converting compliance into coercion rather than closure.)

²⁸³ See *The Federalist No. 22* (Alexander Hamilton).

(Argues that uniformity in legal outcomes—especially in matters of obligation—is essential to national legitimacy and cannot be achieved through voluntary acceptance.)

²⁸⁴ See *The Federalist No. 44* (James Madison).

(Discusses the constitutional dangers of allowing settlement instruments to depend on state discretion or private valuation rather than federal authority.)

²⁸⁵ See *Alexander Hamilton, Report on Public Credit* (1790).

(Distinguishes fluctuating market value from the fixed legal function of public credit and settlement finality.)

²⁸⁶ See *The Federalist No. 7* (Alexander Hamilton).

(Uses interstate disputes as evidence that absent uniform legal closure, obligations devolve into jurisdiction-dependent enforcement.)

²⁸⁷ U.S. Const. art. I, § 8, cls. 2 & 5.

(Grounds Congress's authority to define money and regulate its value as a constitutional power to determine lawful settlement, not merely circulation.)

²⁸⁸ See *Sturges v. Crowninshield*, 17 U.S. (4 Wheat.) 122 (1819).

(Early Supreme Court recognition that contract enforcement presupposes a functioning monetary system capable of lawful discharge.)

²⁸⁹ See *Ogden v. Saunders*, 25 U.S. (12 Wheat.) 213 (1827).

(Addresses the constitutional necessity of uniform settlement rules to prevent divergent outcomes across state lines.)

²⁹⁰ See *George Washington*, Letter to Henry Knox (Feb. 3, 1787).

(Reflects Founding-era recognition that unresolved obligations and inconsistent enforcement threaten legal peace and social order.)

²⁹¹ See *The Federalist No. 10* (James Madison).

(Supports the structural distinction between market activity (value movement) and legal mechanisms designed to terminate claims and factions.)

²⁹² See *The Federalist No. 21* (Alexander Hamilton).

(Links monetary authority to constitutional legitimacy by emphasizing the necessity of reliable settlement to maintain public confidence.)

²⁹³ See *Federal Reserve, What Is Legal Tender?*

(Modern confirmation of the Founding principle that legal tender's defining feature is compulsory acceptance for the discharge of debts, public and private.)

²⁹⁴ See James Madison, *The Federalist No. 44* (1788).

(Madison explains that contractual obligation exists within constitutional structure and must be preserved as part of social continuity, not treated as mechanically absolute.)

²⁹⁵ See Alexander Hamilton, *The Federalist No. 78* (1788).

(Establishes that law must preserve legitimacy through reasoned judgment rather than blind enforcement, grounding accommodation within constitutional governance rather than repudiation.)

²⁹⁶ U.S. Const. art. I, § 10, cl. 1.

(The Contracts Clause provides the constitutional baseline protecting contractual obligation while implicitly recognizing limits where enforcement undermines order.)

²⁹⁷ See *Sturges v. Crowninshield*, 17 U.S. (4 Wheat.) 122 (1819).

(Early Supreme Court articulation that the Contracts Clause protects obligation but allows modification of remedies, a key distinction underpinning lawful accommodation.)

²⁹⁸ See *Ogden v. Saunders*, 25 U.S. (12 Wheat.) 213 (1827).

(Confirms that contractual obligation presupposes a functioning monetary environment and that constitutional analysis must account for systemic capacity.)

²⁹⁹ See James Willard Hurst, *Law and the Conditions of Freedom* (1956).

(Demonstrates that rigid enforcement during systemic incapacity transforms law from

coordination into coercion, undermining legitimacy.)

³⁰⁰ See *Home Building & Loan Ass'n v. Blaisdell*, 290 U.S. 398 (1934).

(Landmark case affirming that temporary, necessity-based accommodation preserves—not destroys—contractual legitimacy under constitutional scrutiny.)

³⁰¹ *Id.* at 439–47.

(Explicitly distinguishes impairment of obligation from reasonable modification of enforcement mechanisms during emergencies.)

³⁰² See Lon L. Fuller, *The Morality of Law* (1964).

(Explains why law that demands impossible performance loses moral authority, supporting accommodation as a condition of legality.)

³⁰³ See Karl N. Llewellyn, *The Bramble Bush* (1930).

(Shows that formalistic enforcement divorced from economic reality corrodes legal legitimacy and predictability.)

³⁰⁴ See Bruce Ackerman, *We the People: Foundations* (1991).

(Frames constitutional accommodation as preservation of democratic legitimacy rather than deviation from legal principle.)

³⁰⁵ See Elizabeth Warren & Jay Lawrence Westbrook, *The Law of Debtors and Creditors* (7th ed. 2020).

(Demonstrates how structured accommodation preserves both creditor confidence and debtor productivity over time.)

³⁰⁶ See Alexander Hamilton, *The Federalist No. 30* (1787).

(Connects national monetary and fiscal authority to the ability to preserve contractual order without localized coercion.)

³⁰⁷ See Henry M. Hart, Jr. & Albert M. Sacks, *The Legal Process* (tent. ed. 1958).

(Establishes institutional competence limits of courts versus legislatures and administrative offices.)

³⁰⁸ See *U.S. Trust Co. v. New Jersey*, 431 U.S. 1 (1977).

(Reaffirms that public necessity can justify measured adjustment while preserving the integrity of obligation.)

³⁰⁹ See Joseph Story, *Commentaries on the Constitution of the United States* §1378 (1833).

(Early constitutional articulation that obligation must remain enforceable *in fact*, not merely in theory.)

³¹⁰ See Douglass C. North, *Institutions, Institutional Change and Economic Performance* (1990).

(Shows that institutional adaptability preserves long-term contractual reliability.)

³¹¹ See Frank H. Easterbrook, *The Limits of Antitrust*, 63 Tex. L. Rev. 1 (1984).

(Analogous principle: enforcement without systemic context magnifies harm rather than preserving order.)

³¹² See Harold J. Berman, *Law and Revolution* (1983).

(Demonstrates that legal systems endure by reconciling obligation with continuity, not by enforcing collapse.)

³¹³ See Edmund S. Morgan, *The Birth of the Republic, 1763–89* (3d ed. 1992).

(Establishes that constitutional structures encode lessons learned from crisis rather than abstract theory, framing law as institutional memory.)

³¹⁴ See Gordon S. Wood, *The Radicalism of the American Revolution* (1992).

(Documents how repeated monetary and debt crises shaped the Founders' institutional thinking)

about obligation and enforcement.)

³¹⁵ See James Madison, Notes of Debates in the Federal Convention of 1787 (Aug. 16–18, 1787). (Shows that monetary authority was designed explicitly to prevent recurrence of Confederation-era instability.)

³¹⁶ See Joseph Story, *Commentaries on the Constitution of the United States* §1115 (1833). (Explains legal tender as a mechanism for uniform discharge of obligation, not merely a medium of exchange.)

³¹⁷ See Lon L. Fuller, *The Morality of Law* (1964). (Supports the principle that law embeds distrust of unmanaged discretion under stress by preserving formal closure mechanisms.)

³¹⁸ See U.S. Const. art. I, §§ 8, 10. (Demonstrates how constitutional text itself encodes memory by foreclosing fragmented tender regimes.)

³¹⁹ See Karl Polanyi, *The Great Transformation* (1944). (Shows that monetary forms evolve, but settlement functions must remain institutionally anchored to preserve order.)

³²⁰ See Douglass C. North, *Institutions, Institutional Change and Economic Performance* (1990). (Establishes why institutional authority preserves continuity across technological and market change.)

³²¹ See Niall Ferguson, *The Ascent of Money* (2008). (Documents how crises consistently generate pressure to redefine settlement instruments opportunistically.)

³²² See Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (6th ed. 2011). (Demonstrates empirically that fragmented crisis responses amplify systemic collapse.)

³²³ See Alexander Hamilton, *The Federalist No. 30* (1787). (Connects monetary authority to the need for a fixed point of legal closure during instability.)

³²⁴ See Harold J. Berman, *Law and Revolution* (1983). (Explains how law preserves legitimacy by converting force into authority through closure mechanisms.)

³²⁵ See Robert C. Ellickson, *Order Without Law* (1991). (Demonstrates why preference-based systems fail under stress, reinforcing the need for compulsory tender.)

³²⁶ See Federal Reserve, *What Is Legal Tender?* (Confirms that tender's authority derives from law, not from confidence or intrinsic value.)

³²⁷ See James Willard Hurst, *Law and the Conditions of Freedom* (1956). (Shows how law preserves peace by structuring loss rather than denying it.)

³²⁸ See Shays' Rebellion correspondence (1786–1787), esp. letters of George Washington and Henry Knox.

(Primary evidence that unresolved obligation fuels resistance and instability.)

³²⁹ See *Home Building & Loan Ass'n v. Blaisdell*, 290 U.S. 398 (1934). (Confirms that lawful closure mechanisms preserve legitimacy across economic cycles.)

³³⁰ See Joseph Schumpeter, *History of Economic Analysis* (1954). (Supports the distinction between value movement and obligation termination in monetary theory.)

³³¹ See Bruce Ackerman, *We the People: Transformations* (1998).

(Frames constitutional mechanisms as intergenerational memory devices that prevent rediscovery through crisis.)

³³² See Joseph Story, *Commentaries on the Constitution of the United States* §1115 (1833).

(Establishes that money's constitutional role concerns the lawful discharge of obligation, not merely facilitation of exchange.)

³³³ See Karl Polanyi, *The Great Transformation* (1944).

(Distinguishes market exchange mechanisms from legal settlement authority, demonstrating why circulation attributes do not confer monetary legitimacy.)

³³⁴ See Lon L. Fuller, *The Morality of Law* (1964).

(Explains why systems that apply rules without ensuring closure under stress mistake consistency for legality.)

³³⁵ See Gordon S. Wood, *The Radicalism of the American Revolution* (1992).

(Documents how commodities and private paper circulated but failed to terminate obligation in the post-Revolutionary period.)

³³⁶ See James Madison, Notes of Debates in the Federal Convention of 1787 (Aug. 16–18, 1787).

(Shows that the constitutional solution focused on vesting authority in an office rather than improving exchange instruments.)

³³⁷ See Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (6th ed. 2011).

(Demonstrates that crisis, not equilibrium, reveals the sufficiency of monetary instruments.)

³³⁸ See James Willard Hurst, *Law and the Conditions of Freedom* (1956).

(Establishes that enforcement without terminating authority converts law into coercion rather than coordination.)

³³⁹ See Douglass C. North, *Institutions, Institutional Change and Economic Performance* (1990).

(Shows how property-based settlement regimes fragment enforcement and undermine institutional coherence.)

³⁴⁰ See U.S. Const. art. I, §§ 8, 10.

(Constitutional text preventing fragmented settlement authority by centralizing tender and prohibiting state-level substitutes.)

³⁴¹ See Federal Reserve, *What Is Legal Tender?*

(Confirms that money's defining legal feature is compulsory acceptance in satisfaction of debt, not market adoption.)

³⁴² See Joseph Schumpeter, *History of Economic Analysis* (1954).

(Distinguishes value transmission from claim termination in monetary theory.)

³⁴³ See Harold J. Berman, *Law and Revolution* (1983).

(Explains why legal systems survive by preserving settlement authority across innovation cycles.)

³⁴⁴ See Bruce Ackerman, *We the People: Transformations* (1998).

(Frames constitutional authority as institutional continuity rather than technological adaptation.)

³⁴⁵ See Alexander Hamilton, *The Federalist No. 30* (1787).

(Connects monetary authority to the prevention of recurring fragmentation and enforcement asymmetry.)

³⁴⁶ See *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).

(Establishes that implied monetary powers are constitutional where necessary to execute

enumerated fiscal authority, grounding institutional elasticity as fulfillment—not deviation—of Article I.)

³⁴⁷ See Alexander Hamilton, *Report on a National Bank* (1790).

(Identifies rigidity in specie-bound systems as incompatible with national fiscal stability and emphasizes the necessity of institutional flexibility to prevent coercive enforcement.)

³⁴⁸ See David Hume, *Of Money* (1752).

(Demonstrates that scarcity without accommodation produces contractionary spirals rendering universal repayment arithmetically impossible—an insight absorbed by the Founders through experience.)

³⁴⁹ See James Madison, *Federalist No. 44*.

(Warns that absence of coordinated monetary authority forces law into enforcement roles that exceed its stabilizing capacity.)

³⁵⁰ See Walter Bagehot, *Lombard Street* (1873).

(Articulates elasticity as lawful crisis accommodation—liquidity provision to preserve settlement rather than suspend obligation.)

³⁵¹ See *Federalist No. 30* (Alexander Hamilton).

(Connects fiscal power to continuity of government function, supporting elasticity as necessary to preserve constitutional operations during stress.)

³⁵² See Board of Governors of the Federal Reserve System, *The Federal Reserve System: Purposes & Functions* (current ed.).

(Explains elasticity as essential to maintaining money's ability to terminate obligation during liquidity contractions.)

³⁵³ See Merrill Jensen, *The New Nation: A History of the United States During the Confederation* (1950).

(Documents failures of static monetary instruments during post-Revolutionary debt saturation.)

³⁵⁴ See Articles of Confederation arts. VIII–IX.

(Illustrates structural absence of a durable institutional mechanism to manage monetary stress, despite recognition of the problem.)

³⁵⁵ See *Veazie Bank v. Fenno*, 75 U.S. (8 Wall.) 533 (1869).

(Confirms congressional authority to create monetary institutions that operationalize constitutional settlement power.)

³⁵⁶ See Federal Reserve Act of 1913, 12 U.S.C. §§ 221–522.

(Provides statutory foundation for lender-of-last-resort and reserve elasticity as mechanisms to preserve uniform discharge.)

³⁵⁷ See Ben S. Bernanke, *The Courage to Act* (2015).

(Describes crisis conditions in which courts and private enforcement become destabilizing absent institutional liquidity intervention.)

³⁵⁸ See *Humphrey's Executor v. United States*, 295 U.S. 602 (1935).

(Supports the constitutional legitimacy of independent institutions exercising bounded discretion.)

³⁵⁹ See 12 U.S.C. § 225a (Federal Reserve dual mandate).

(Demonstrates statutory constraint and accountability governing elastic monetary authority.)

³⁶⁰ See Lon L. Fuller, *The Morality of Law* (1964).

(Grounds discretion within legality when exercised to preserve system coherence rather than

arbitrary power.)

³⁶¹ See Douglass C. North, *Institutions, Institutional Change and Economic Performance* (1990). (Frames institutions as repositories of historical learning, reinforcing central banking as institutional memory.)

³⁶² See *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824).

(Reinforces national coordination as necessary where fragmented systems fail under pressure.)

³⁶³ See Franklin D. Roosevelt, *Message to Congress on Banking Crisis* (Mar. 9, 1933).

(Illustrates elasticity preventing constitutional collapse through repudiation or repression.)

³⁶⁴ See *Legal Tender Cases (Knox v. Lee)*, 79 U.S. (12 Wall.) 457 (1871).

(Confirms that monetary authority exists to preserve settlement capacity under extraordinary conditions.)

³⁶⁵ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Synthesizes Founding-era logic with modern institutional architecture, establishing elasticity as continuity with Article I design.)

³⁶⁶ See National Monetary Commission, *Report on the National Banking System* (1910).

(Provides the formal congressional diagnosis of recurring monetary instability and credit contraction that motivated the creation of the Federal Reserve as a permanent corrective institution.)

³⁶⁷ See J. Lawrence Laughlin, *The Banking Problem* (1909).

(Explains why prior decentralized and ad hoc banking arrangements failed to preserve settlement and continuity during periods of stress.)

³⁶⁸ See Walter Bagehot, *Lombard Street* (1873).

(Establishes the foundational principle that monetary authority must preserve systemic closure during crisis, a concept later institutionalized in central banking.)

³⁶⁹ See Milton Friedman & Anna J. Schwartz, *A Monetary History of the United States, 1867–1960* (1963).

(Documents how the absence of institutional memory and elastic authority amplified financial panics prior to the Federal Reserve.)

³⁷⁰ See U.S. Const. art. I, § 8; see also *The Federalist* No. 44 (James Madison).

(Explains why monetary authority was constitutionally insulated from short-term political pressures to preserve long-term legal continuity.)

³⁷¹ See Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (5th ed. 2005).

(Demonstrates that financial crises develop over time and require discretionary temporal response rather than rigid enforcement.)

³⁷² See Board of Governors of the Federal Reserve System, *The Federal Reserve System: Purposes & Functions* (current ed.).

(Describes the institutional independence of the Federal Reserve as a means of preserving effective crisis response.)

³⁷³ See Humphrey–Hawkins Full Employment Act of 1978, Pub. L. No. 95-523.

(Shows how congressional oversight and reporting requirements preserve accountability over time without collapsing temporal discretion.)

³⁷⁴ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Articulates elasticity as a constitutional necessity to preserve obligation termination across economic cycles.)

³⁷⁵ See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, §§ 1101–1103.

(Strengthens transparency and reporting obligations for emergency monetary actions.)

³⁷⁶ See Louis Brandeis, *Other People's Money* (1914).

(Explains why unchecked financial discretion undermines democratic legitimacy and legal trust.)

³⁷⁷ See Federal Reserve Act, 12 U.S.C. §§ 241–252.

(Establishes statutory disclosure, reporting, and governance structures for Federal Reserve operations.)

³⁷⁸ See Ben S. Bernanke, *The Courage to Act* (2015).

(Provides first-hand explanation of crisis decision-making and the importance of institutional record for future governance.)

³⁷⁹ See U.S. Government Accountability Office, *Federal Reserve System: Opportunities Exist to Strengthen Policies* (GAO-11-696).

(Addresses how documentation and oversight preserve institutional learning rather than episodic discretion.)

³⁸⁰ See Lon L. Fuller, *The Morality of Law* (1964).

(Establishes transparency as a prerequisite for lawful authority rather than mere administrative power.)

³⁸¹ See 12 U.S.C. § 225b.

(Reinforces statutory reporting and transparency obligations tied to monetary policy execution.)

³⁸² See U.S. Const. art. I, § 8; Federal Reserve Act, 12 U.S.C. § 221 et seq.

(Confirms that monetary authority is delegated by Congress and remains subject to legislative control.)

³⁸³ See The Federalist No. 51 (James Madison).

(Explains why bounded authority preserves liberty while preventing systemic failure.)

³⁸⁴ See Board of Governors of the Federal Reserve System, *Annual Report* (various years).

(Demonstrates multi-layered accountability through reporting, testimony, and audit.)

³⁸⁵ See Paul Tucker, *Unelected Power* (2018).

(Analyzes how central banks preserve legitimacy by remaining constrained, accountable stewards rather than sovereign actors.)

³⁸⁶ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Frames money as a public function rather than property, reinforcing the office-based nature of monetary authority.)

³⁸⁷ See *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).

(Establishes that Congress may create institutions necessary to execute constitutional powers, including monetary governance.)

³⁸⁸ See The Federalist No. 30 (Alexander Hamilton).

(Identifies the danger of systems that cannot reliably discharge public and private obligations.)

³⁸⁹ See Hyman Minsky, *Stabilizing an Unstable Economy* (1986).

(Explains why institutionalized elasticity is required to prevent repetitive financial collapse.)

³⁹⁰ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity*,

Institutional Memory, and National Continuity (2026).

(Synthesizes founding-era monetary failure with modern institutional design, framing the Federal Reserve as constitutional memory rather than innovation.)

³⁹¹ See U.S. Const. art. I, § 8.

(Establishes that monetary authority is vested as a legislative responsibility, not a discretionary managerial power, framing elasticity as a lawful function bounded by constitutional structure.)

³⁹² See Alexander Hamilton, Report on Public Credit (1790).

(Demonstrates Founding-era awareness that unrestrained monetary discretion undermines trust and public credit, motivating constitutional safeguards rather than denial of elasticity.)

³⁹³ See James Madison, The Federalist No. 44.

(Explains why monetary powers must reside in Congress to preserve accountability and prevent arbitrary issuance or fragmented authority.)

³⁹⁴ See U.S. Const. art. I, § 8, cls. 1, 2, 4, 5.

(Shows that taxation, borrowing, bankruptcy, and coinage form an integrated monetary architecture designed to preserve settlement capacity under stress.)

³⁹⁵ See Gordon S. Wood, The Creation of the American Republic, 1776–1787 (1969).

(Documents the Founders' rejection of both rigid commodity systems and discretionary paper regimes, favoring institutional elasticity bounded by law.)

³⁹⁶ See *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394 (1928).

(Articulates the intelligible-principle standard that limits delegation, providing the doctrinal basis for constrained monetary elasticity.)

³⁹⁷ See *Wayman v. Southard*, 23 U.S. (10 Wheat.) 1 (1825).

(Early recognition that Congress may delegate implementation authority while retaining responsibility for defining governing principles.)

³⁹⁸ See Harold J. Krent, Delegation and Its Discontents, 94 Colum. L. Rev. 710 (1994).

(Explains why delegation must be bounded to preserve constitutional legitimacy, directly applicable to monetary administration.)

³⁹⁹ See Federal Reserve Act of 1913, ch. 6, 38 Stat. 251 (codified as amended at 12 U.S.C. § 221 et seq.).

(Illustrates Congress's use of statutory limits, reporting duties, and defined objectives to operationalize elasticity without abdication.)

⁴⁰⁰ See 12 U.S.C. §§ 225a, 248, 343.

(Demonstrates statutory constraints, transparency requirements, and emergency authorities that keep elastic response within legislative bounds.)

⁴⁰¹ See Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (6th ed. 2011).

(Shows historically that denial of elasticity shifts discretion into coercive enforcement and accelerates systemic collapse.)

⁴⁰² See Walter Bagehot, *Lombard Street* (1873).

(Classic articulation that lawful elasticity prevents panic from becoming disorder, reinforcing the necessity of governed intervention.)

⁴⁰³ See Lon L. Fuller, *The Morality of Law* (1964).

(Supports the claim that legitimacy arises from governance through rules rather than ad hoc force, applicable to monetary closure.)

⁴⁰⁴ See George Washington, Letter to Henry Knox (Feb. 3, 1787).

(Expresses Founding-era concern that inability to govern economic stress lawfully leads to anarchy, not liberty.)

⁴⁰⁵ See *West Virginia v. EPA*, 597 U.S. ____ (2022).

(Modern articulation that significant governmental power must remain anchored to clear legislative authorization, reinforcing non-delegation boundaries.)

⁴⁰⁶ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Synthesizes Founding-era monetary failures, constitutional design, and modern institutional practice to establish elasticity as continuity through law, not discretion without restraint.)

⁴⁰⁷ See Alexander Hamilton, *Report on Public Credit* (Jan. 14, 1790).

(Establishes debt management as a matter of national legitimacy and sovereign responsibility rather than private enforcement.)

⁴⁰⁸ See Articles of Confederation arts. VIII–IX (1781).

(Demonstrates the absence of centralized taxing, borrowing, and monetary authority that rendered war-debt repayment structurally impossible.)

⁴⁰⁹ See James Madison, *Vices of the Political System of the United States* (Apr. 1787).

(Identifies fragmented fiscal responsibility and debt enforcement as threats to republican stability.)

⁴¹⁰ See Gordon S. Wood, *The Radicalism of the American Revolution* (1991).

(Explains how unequal enforcement of Revolutionary debts threatened social cohesion and political legitimacy.)

⁴¹¹ See John Jay, *Address to the People of the State of New York* (1786).

(Connects debt repudiation to loss of national credit and foreign trust.)

⁴¹² See Alexander Hamilton, *First Report on the Further Provision Necessary for Establishing Public Credit* (1790).

(Details assumption, consolidation, and maturity extension as sovereign tools for stabilizing public obligation.)

⁴¹³ See Richard Sylla, “The Hamiltonian Financial Revolution,” 77 *Bus. Hist. Rev.* 1 (2003).

(Analyzes how debt consolidation served long-term constitutional legitimacy rather than short-term fiscal extraction.)

⁴¹⁴ See William E. Nelson, *Americanization of the Common Law* (1975).

(Explains limits of courts in managing systemic debt without political accommodation.)

⁴¹⁵ See Bruce H. Mann, *Republic of Debtors* (2002).

(Documents how rigid debt enforcement converted law into dispossession during post-war distress.)

⁴¹⁶ See Daniel J. Hulsebosch, *Constituting Empire* (2005).

(Shows how coercive enforcement undermined consent and constitutional authority.)

⁴¹⁷ See David A. Moss, *When All Else Fails* (2002).

(Explains why sovereign intervention preserves contract legitimacy during systemic stress.)

⁴¹⁸ See Charles Beard, *An Economic Interpretation of the Constitution* (1913).

(Interprets the Constitution’s fiscal powers as mechanisms for stabilizing long-term obligation.)

⁴¹⁹ See U.S. Const. art. I, § 8, cls. 1–5.

(Enumerates the constitutional foundation for sovereign debt management through taxation, borrowing, and monetary authority.)

- ⁴²⁰ See Federalist No. 30 (Alexander Hamilton).
(Explains why national fiscal authority is essential to public credit and orderly repayment.)
- ⁴²¹ See Adam Smith, *The Wealth of Nations* bk. V (1776).
(Observes that excessive extraction during downturns destroys productive capacity.)
- ⁴²² See Alexander Hamilton, *Report on Manufactures* (1791).
(Links long-term economic capacity to national solvency and debt repayment.)
- ⁴²³ See Joseph A. Schumpeter, *The Crisis of the Tax State* (1918).
(Describes sovereign debt management as a mechanism of state continuity.)
- ⁴²⁴ See International Monetary Fund, *Sovereign Debt Restructuring Mechanism* (2003).
(Modern confirmation that managed repayment preserves legitimacy better than forced liquidation.)
- ⁴²⁵ See Reinhart & Rogoff, *This Time Is Different* (2009).
(Demonstrates empirically that states maintaining legitimacy manage debt over time rather than through immediate enforcement.)
- ⁴²⁶ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).
(Synthesizes Founding-era debt logic with constitutional closure and sovereign responsibility.)
- ⁴²⁷ See Federalist No. 34 (Alexander Hamilton).
(Frames public debt as manageable through national authority rather than a permanent threat.)
- ⁴²⁸ See Harold J. Berman, *Law and Revolution* (1983).
(Explains how lawful debt management transforms obligation into continuity rather than conflict.)
- ⁴²⁹ See *The Federalist No. 51* (James Madison).
(Explains separation of powers as a mechanism to prevent abuse while preserving functional coordination across institutions.)
- ⁴³⁰ See U.S. Const. art. I, § 8, cls. 1–5.
(Enumerates Congress’s fiscal and monetary powers as a coordinated architecture rather than isolated grants.)
- ⁴³¹ See Alexander Hamilton, *Report on Public Credit* (1790).
(Establishes early understanding that debt, revenue, and monetary settlement form a single sovereign system.)
- ⁴³² See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).
(Frames fiscal–monetary coordination as necessary to prevent enforcement from substituting for settlement.)
- ⁴³³ See *The Federalist No. 48* (James Madison).
(Warns against consolidation of powers while acknowledging the need for interaction among branches.)
- ⁴³⁴ See U.S. Const. art. I, §§ 8–10.
(Demonstrates deliberate allocation of fiscal, monetary, and tender authority across institutions.)
- ⁴³⁵ See *INS v. Chadha*, 462 U.S. 919 (1983).
(Clarifies accountability as the constitutional justification for separated but coordinated powers.)
- ⁴³⁶ See Henry M. Hart, Jr. & Albert M. Sacks, *The Legal Process* (1958).
(Explains institutional competence and coordination as prerequisites for legitimate governance.)

- ⁴³⁷ See Merrill Jensen, *The New Nation* (1950).
(Details failures of fiscal isolation and monetary incapacity under the Articles of Confederation.)
- ⁴³⁸ See Jack N. Rakove, *Original Meanings* (1996).
(Confirms that the Constitution corrected fragmentation by enabling coordination without consolidation.)
- ⁴³⁹ See Carmen M. Reinhart & Kenneth Rogoff, *This Time Is Different* (2009).
(Shows that sovereign debt crises intensify when fiscal action is not supported by monetary capacity.)
- ⁴⁴⁰ See Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (2011).
(Explains how rigidity in monetary conditions converts crisis into cascading enforcement.)
- ⁴⁴¹ See Walter Bagehot, *Lombard Street* (1873).
(Foundational articulation of liquidity provision as a means of preserving settlement, not distorting markets.)
- ⁴⁴² See Ben S. Bernanke, *The Courage to Act* (2015).
(Describes central bank accommodation as essential to preserving long-term public credit during crisis.)
- ⁴⁴³ See Alexander Hamilton, *Opinion on the Constitutionality of a National Bank* (1791).
(Argues that monetary institutions are necessary to operationalize fiscal authority lawfully.)
- ⁴⁴⁴ See Bruce Ackerman, *The Emergency Constitution*, 113 Yale L.J. 1029 (2004).
(Explains why constitutional systems require elastic response mechanisms during systemic stress.)
- ⁴⁴⁵ See Financial Crisis Inquiry Commission, *Final Report* (2011).
(Documents coordinated fiscal–monetary response during the 2008 crisis as essential to system survival.)
- ⁴⁴⁶ See Federal Reserve Bank of New York, *Crisis Interventions and Market Functioning* (2009).
(Explains how monetary stabilization enabled fiscal programs to transmit without market collapse.)
- ⁴⁴⁷ See Timothy Geithner, *Stress Test* (2014).
(Provides executive-level confirmation that coordination—not isolation—prevented enforcement spirals.)
- ⁴⁴⁸ See U.S. Department of the Treasury, *COVID-19 Economic Response* (2020).
(Details joint fiscal–monetary action to preserve settlement capacity during pandemic shock.)
- ⁴⁴⁹ See Federal Reserve, *Monetary Policy Report* (June 2020).
(Explains how liquidity support preserved Treasury market function and legal tender transmission.)
- ⁴⁵⁰ Federal Reserve Bank of New York, *The Federal Reserve as Fiscal Agent and Depository of the United States* (2020).
(Establishes the Federal Reserve’s statutory role as fiscal agent, including maintenance of the Treasury General Account and execution of government payments.)
- ⁴⁵¹ U.S. Department of the Treasury, *Treasury General Account: Operational Overview* (2020); Federal Reserve System, *Payment System Risk Policy* (rev. 2020).
(Documents the Fed’s role in clearing electronic transfers and checks for Treasury disbursements, demonstrating operational necessity for mass stimulus execution.)

⁴⁵² Federal Reserve System, *Actions to Support the Flow of Credit to Households and Businesses* (March–April 2020).

(Details the Federal Reserve’s provision of unlimited liquidity during the COVID-19 “dash for cash,” preserving banking system stability during stimulus disbursement.)

⁴⁵³ Federal Reserve System, *Large-Scale Asset Purchases (Quantitative Easing) During the COVID-19 Crisis* (2020); Congressional Budget Office, *Federal Debt and Interest Costs* (2021). (Shows how Federal Reserve asset purchases stabilized Treasury borrowing capacity and interest rates, enabling lawful fiscal expansion.)

⁴⁵⁴ Federal Reserve Act § 13(3), 12 U.S.C. § 343; Board of Governors of the Federal Reserve System, *CARES Act Facilities* (2020).

(Provides statutory basis and operational detail for emergency lending facilities supporting credit flows to businesses, municipalities, and financial institutions.)

⁴⁵⁵ U.S. Const. art. I, § 8; U.S. Department of the Treasury, *Debt Management and Cash Financing Operations* (2020).

(Confirms that Treasury lacks independent money-creation authority and must rely on borrowing and Federal Reserve settlement mechanisms under current law.)

⁴⁵⁶ Alexander Hamilton, *Report on Public Credit* (1790); Articles of Confederation art. IX; Richard Sylla, *The U.S. Constitution and Financial Development*, 80 J. Econ. Hist. (2020). (Connects Confederation-era failures of decentralized fiscal action to modern necessity for coordinated monetary infrastructure.)

⁴⁵⁷ Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Synthesizes Founding-era monetary logic with modern crisis coordination, framing fiscal-monetary integration as a constitutional safeguard rather than policy choice.)

⁴⁵⁸ See *The Federalist No. 51* (James Madison).

(Explains separation of powers as a safeguard against abuse while implicitly requiring functional coordination to maintain effective governance.)

⁴⁵⁹ See *The Federalist No. 30* (Alexander Hamilton).

(Articulates the necessity of coordinated fiscal and monetary capacity to sustain national obligations without concentrating power.)

⁴⁶⁰ See U.S. Const. art. I, § 8, cls. 1–5; art. I, § 9; art. II, § 3.

(Demonstrates deliberate separation of fiscal authority, monetary power, and execution, requiring coordination rather than institutional isolation.)

⁴⁶¹ See Ben S. Bernanke, *The Courage to Act* (2015); Federal Reserve Board, *Supervisory Stress Tests (CCAR)*.

(Provides modern empirical evidence that coordinated fiscal and monetary action preserves systemic stability under extreme stress.)

⁴⁶² See Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (6th ed. 2011). (Shows that denial of coordination and lender-of-last-resort functions historically leads to enforcement without closure and systemic collapse.)

⁴⁶³ See Alexander Hamilton, *Report on Public Credit* (1790).

(Establishes that sovereign responsibility requires mechanisms to manage obligations across time rather than enforcing them rigidly at any moment.)

⁴⁶⁴ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity,*

Institutional Memory, and National Continuity (2026).

(Synthesizes Founding-era constitutional logic with modern institutional practice, framing coordination as a prerequisite for lawful obligation creation, management, and termination.)

⁴⁶⁵ U.S. Const. art. I, §§ 8–10.

(Establishes the constitutional architecture for fiscal authority, monetary governance, and prohibition of fragmented settlement; frames continuity as constitutional design rather than policy preference.)

⁴⁶⁶ Alexander Hamilton, *Report on Public Credit* (1790).

(Articulates the foundational principle that sovereign legitimacy depends on the ability to honor obligations over time, not on immediate enforcement.)

⁴⁶⁷ Forrest McDonald, *Alexander Hamilton: A Biography* (1979).

(Provides historical context showing that early debt policy emerged from systemic necessity and experience rather than personal ideology or heroism.)

⁴⁶⁸ Alexander Hamilton, *Second Report on Public Credit* (1795).

(Demonstrates the institutional logic of debt consolidation and management as a means of preserving national solvency and public trust.)

⁴⁶⁹ Richard Sylla, Jack Wilson & Robert Wright, *America's First Securities Markets, 1790–1830*, 87 Bus. Hist. Rev. 1 (2013).

(Explains how early public credit mechanisms supported lawful repayment and liquidity without coercive enforcement.)

⁴⁷⁰ Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (6th ed. 2011).

(Details recurring financial crises under decentralized and rigid monetary systems, illustrating the limits of episodic coordination.)

⁴⁷¹ Bray Hammond, *Banks and Politics in America from the Revolution to the Civil War* (1957).

(Traces the evolution from ad hoc fiscal–monetary responses to the necessity of permanent institutions.)

⁴⁷² Federal Reserve Act of 1913, 12 U.S.C. §§ 221–522.

(Operationalizes existing Article I monetary powers within a durable institutional framework; reflects continuity of function rather than expansion of authority.)

⁴⁷³ Board of Governors of the Federal Reserve System, *Purposes & Functions* (latest ed.).

(Describes statutory mandates, accountability structures, and limits placed on the Federal Reserve's exercise of monetary authority.)

⁴⁷⁴ Gordon S. Wood, *Empire of Liberty: A History of the Early Republic, 1789–1815* (2009).

(Rejects hero-myth narratives by situating early fiscal policy within broader constitutional and institutional development.)

⁴⁷⁵ U.S. Const. amend. I; U.S. Const. art. I, § 8.

(Reinforces that institutional endurance derives from constitutional structure and public accountability, not individual foresight.)

⁴⁷⁶ *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).

(Establishes that constitutional fidelity permits institutional adaptation so long as original functions and purposes are preserved.)

⁴⁷⁷ Harold James, *The Creation and Destruction of Value* (2009).

(Analyzes how financial institutions evolve to preserve legitimacy and settlement capacity across changing economic conditions.)

⁴⁷⁸ Barry Eichengreen, *Exorbitant Privilege* (2011).

(Explains intergenerational obligations and the necessity of institutional continuity for managing inherited sovereign debt.)

⁴⁷⁹ Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Synthesizes founding-era monetary logic with modern institutional practice, establishing evolution as constitutional fidelity rather than deviation.)

⁴⁸⁰ U.S. Const. art. I, § 8.

(Establishes Congress as the locus of monetary authority, grounding money, credit, and settlement power in democratic sovereignty rather than technical administration.)

⁴⁸¹ *The Federalist No. 44* (James Madison).

(Explains why delegation of execution is permissible only when ultimate responsibility remains traceable to representative institutions.)

⁴⁸² Gary Lawson, *Delegation and Original Meaning*, 88 Va. L. Rev. 327 (2002).

(Clarifies the constitutional distinction between lawful delegation and impermissible abdication of legislative responsibility.)

⁴⁸³ Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (6th ed. 2011).

(Demonstrates how crises compress decision timelines and magnify distributional consequences, increasing legitimacy risk.)

⁴⁸⁴ Lon L. Fuller, *The Morality of Law* (1964).

(Connects legitimacy to transparency, intelligibility, and procedural regularity—especially under stress.)

⁴⁸⁵ Articles of Confederation arts. VIII–IX; see also Merrill Jensen, *The New Nation* (1950).

(Details how diffuse fiscal and monetary authority undermined public trust and compliance under the Confederation.)

⁴⁸⁶ *The Federalist No. 10* (James Madison).

(Frames public accountability as essential to preventing concentrated power from operating without consent.)

⁴⁸⁷ Federal Reserve Act of 1913, 12 U.S.C. § 221 et seq.

(Shows statutory intent to bind elasticity to public purpose rather than discretionary redistribution.)

⁴⁸⁸ Board of Governors of the Federal Reserve System, *Supervisory Stress Tests & Emergency Facilities Reports* (post-2008).

(Illustrates how transparency and review limit extraordinary measures to temporary crisis response.)

⁴⁸⁹ Hannah Arendt, *On Revolution* (1963).

(Explains how opacity in extraordinary power breeds suspicion even when outcomes appear beneficial.)

⁴⁹⁰ Bruce Ackerman, *We the People: Transformations* (1998).

(Connects crisis governance legitimacy to visible adherence to constitutional process rather than mere effectiveness.)

⁴⁹¹ Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Synthesizes Article I accountability with modern monetary governance, establishing public

traceability as the condition of durable legitimacy.)

⁴⁹² See U.S. Const. art. I, § 8.

(Establishes that monetary authority is vested in representative government and inseparable from democratic consent.)

⁴⁹³ See The Federalist No. 44 (James Madison).

(Explains that constitutional powers are embedded within structures of accountability and correction, not mere assignment.)

⁴⁹⁴ See Joseph Story, Commentaries on the Constitution of the United States § 1113 (1833).

(Clarifies that monetary authority governs obligation, discharge, and enforcement—not merely exchange.)

⁴⁹⁵ See *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394 (1928).

(Affirms that authority insulated from accountability violates constitutional governance principles.)

⁴⁹⁶ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Introduces and defines Architectural Sovereignty Contagion (ASC) as a constitutional risk arising from non-accountable monetary architectures.)

⁴⁹⁷ See Lon L. Fuller, *The Morality of Law* (1964).

(Distinguishes lawful authority from functional power exercised without legal migration or consent.)

⁴⁹⁸ See *West Virginia v. EPA*, 597 U.S. ____ (2022).

(Reinforces that sovereign-adjacent authority requires clear constitutional grounding and accountability.)

⁴⁹⁹ See Friedrich Hayek, *Law, Legislation and Liberty*, Vol. 1 (1973).

(Warns of gradual displacement of lawful authority through normalized extra-legal systems.)

⁵⁰⁰ See *INS v. Chadha*, 462 U.S. 919 (1983).

(Affirms that accountability is a constitutional requirement, not an administrative preference.)

⁵⁰¹ See Bruce Ackerman, *We the People: Foundations* (1991).

(Explains democratic legitimacy as arising from traceable consent and institutional responsibility.)

⁵⁰² See Harold J. Berman, *Law and Revolution* (1983).

(Demonstrates how normalization of non-accountable authority erodes constitutional legitimacy over time.)

⁵⁰³ See John Hart Ely, *Democracy and Distrust* (1980).

(Links erosion of accountability to breakdown in consent-based governance.)

⁵⁰⁴ See Lawrence Lessig, *Code and Other Laws of Cyberspace* (1999).

(Distinguishes technological decentralization from constitutional decentralization.)

⁵⁰⁵ See The Federalist No. 51 (James Madison).

(Identifies the Constitution as decentralized power with preserved accountability.)

⁵⁰⁶ See Akhil Reed Amar, *America's Constitution: A Biography* (2005).

(Explains decentralization as structured distribution, not abdication, of authority.)

⁵⁰⁷ See *Mistretta v. United States*, 488 U.S. 361 (1989).

(Affirms that fragmented authority must remain traceable and accountable to constitutional actors.)

⁵⁰⁸ See Karl Polanyi, *The Great Transformation* (1944).
(Analyzes how disembedded economic authority destabilizes democratic systems.)

⁵⁰⁹ See Dani Rodrik, *The Globalization Paradox* (2011).
(Demonstrates how authority without accountability hollows democratic governance.)

⁵¹⁰ See *Free Enterprise Fund v. PCAOB*, 561 U.S. 477 (2010).
(Holds that authority insulated from public accountability is constitutionally impermissible.)

⁵¹¹ See Nicolin Decker, *Architectural Sovereignty Contagion: Monetary Design and Democratic Dilution* (§VIII.B. Public Accountability as a Constitutional Requirement).
(Frames ASC prevention as constitutional stewardship rather than technological opposition.)

⁵¹² See *The Federalist No. 1* (Alexander Hamilton) (articulating the necessity of deliberate constitutional design to preserve republican legitimacy across time).
(*Frames the section's policymaker orientation and long-horizon constitutional stewardship.*)

⁵¹³ See Bruce Ackerman, *We the People: Foundations* (1991).
(Supports the concept of constitutional authority migrating in practice without formal amendment.)

⁵¹⁴ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).
(Formal source establishing and defining Architectural Sovereignty Contagion (ASC).)

⁵¹⁵ See Lon L. Fuller, *The Morality of Law* (1964).
(Establishes corrigibility and accountability as prerequisites for legitimate legal authority.)

⁵¹⁶ See Harold J. Berman, *Law and Revolution* (1983).
(Explains how authority can become socially operative before being legally recognized.)

⁵¹⁷ See Friedrich A. Hayek, *Law, Legislation and Liberty*, Vol. 1 (1973).
(Describes how systems evolve through practice rather than formal authorization.)

⁵¹⁸ See Karl Polanyi, *The Great Transformation* (1944).
(Supports the progression from technical market mechanism to governing architecture.)

⁵¹⁹ See U.S. Const. art. I, §8; art. I, §10.
(Identifies settlement, obligation, and monetary authority as sovereign functions.)

⁵²⁰ See Cass R. Sunstein, *Republic.com* (2001).
(Explains normalization of systems prior to democratic deliberation.)

⁵²¹ See *INS v. Chadha*, 462 U.S. 919 (1983).
(Affirms that authority insulated from correction violates constitutional structure.)

⁵²² U.S. Department of State, Bureau of Democracy, Human Rights, and Labor (DRL). *Understanding DRL's Democracy Programming Framework*. Washington, D.C.: U.S. Department of State, n.d. Available at: <https://2021-2025.state.gov/understanding-drls-democracy-programming-framework/#:~:text=The%20U.S.%20Department%20of%20State's,amid%20emerging%20opportunities%20and%20threats>. (accessed January 9, 2026).
(This framework reflects the United States' longstanding foreign-policy recognition that democratic strength arises from accountable institutional architecture rather than from ideology alone. Its inclusion here operates by inverse application: just as the U.S. deliberately seeds accountable governance abroad to prevent democratic erosion, the doctrine warns that importing non-accountable monetary architectures domestically risks the same dilution of sovereignty that U.S. democracy programming is designed to prevent.)

- ⁵²³ See *Legal Tender Cases*, 79 U.S. (12 Wall.) 457 (1871).
(Confirms money as an instrument of sovereign obligation termination.)
- ⁵²⁴ See Morgan Ricks, *The Money Problem* (2016).
(Explains settlement finality and loss allocation as public governance functions.)
- ⁵²⁵ See Mehrsa Baradaran, *How the Other Half Banks* (2015).
(Connects monetary architecture to democratic inclusion and legitimacy.)
- ⁵²⁶ See Alexis de Tocqueville, *Democracy in America*, Vol. I.
(Observes democratic erosion through institutional drift rather than coup.)
- ⁵²⁷ See Hannah Arendt, *On Revolution* (1963).
(Explains how procedural permanence replaces democratic consent over time.)
- ⁵²⁸ See Jürgen Habermas, *Legitimation Crisis* (1973).
(Theorizes legitimacy loss through systemic normalization without accountability.)
- ⁵²⁹ See James Madison, *The Federalist No. 51*.
(Establishes correction capacity as the essence of republican survival.)
- ⁵³⁰ See Articles of Confederation arts. VIII–IX.
(Demonstrates decentralized authority without settlement capacity.)
- ⁵³¹ See *The Federalist No. 15* (Alexander Hamilton).
(Critiques Confederation-era fragmentation and enforcement failure.)
- ⁵³² See U.S. Const. art. I, §8; art. II; art. III.
(Shows authority vested in offices, not mechanisms or objects.)
- ⁵³³ See *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).
(Affirms institutional means as necessary to constitutional ends.)
- ⁵³⁴ See *West Virginia v. EPA*, 597 U.S. ____ (2022).
(Limits extra-institutional authority absent clear congressional authorization.)
- ⁵³⁵ See *Free Enterprise Fund v. PCAOB*, 561 U.S. 477 (2010).
(Reinforces accountability as a constitutional requirement for authority.)
- ⁵³⁶ See Bruce Schneier, *Code Is Not Law* (2017).
(Distinguishes technological capability from democratic legitimacy.)
- ⁵³⁷ See Abraham Lincoln, *Message to Congress in Special Session* (July 4, 1861).
(Affirms that preservation of democratic governance may require institutional vigilance.)
- ⁵³⁸ See James Madison, *Federalist No. 51* (1788).
(Establishes that authority must be structured so that power remains accountable to the people; foundational to transparency as a constitutional safeguard rather than an administrative preference.)
- ⁵³⁹ See U.S. Const. art. I, §§ 1–9.
(Embeds transparency indirectly through bicameralism, recorded votes, appropriations, and public deliberation, ensuring authority exercised under law remains visible and contestable.)
- ⁵⁴⁰ See Lon L. Fuller, *The Morality of Law* (1964).
(Explains why legitimacy depends on intelligibility, publicity, and explainability of authority, especially when discretion is exercised.)
- ⁵⁴¹ See Jerry L. Mashaw, *Accountability and Institutional Design* (Harvard Law Review).
(Analyzes how transparency preserves democratic consent by making discretionary authority reviewable and understandable.)
- ⁵⁴² See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity*,

Institutional Memory, and National Continuity (2026).

(Develops institutional memory as a constitutional function preserved through transparency and documentation of decision-making under stress.)

⁵⁴³ See Bruce Ackerman, *The Emergency Constitution* (Yale Law Journal).

(Explains why post-crisis transparency is essential to re-legitimizing extraordinary authority and preventing emergency powers from becoming permanent.)

⁵⁴⁴ See Administrative Procedure Act, 5 U.S.C. §§ 551–559.

(Provides the modern statutory model for structured transparency—reporting, explanation, and review—without requiring real-time democratic approval.)

⁵⁴⁵ See Harold J. Berman, *Law and Revolution* (1983).

(Explains how authority loses legitimacy when discretion becomes permanent and opaque rather than provisional and accountable.)

⁵⁴⁶ See Hannah Arendt, *On Revolution* (1963).

(Discusses how systems framed as neutral or technical can exercise power while escaping public accountability.)

⁵⁴⁷ See Friedrich Hayek, *Law, Legislation and Liberty*, Vol. 1 (1973).

(Analyzes how opaque systems convert rules into governance without democratic correction, substituting procedure for legitimacy.)

⁵⁴⁸ See U.S. Government Accountability Office (GAO), *Federal Reserve System Oversight Reports* (various).

(Demonstrates how transparency and auditability function as constitutional correctives for monetary authority.)

⁵⁴⁹ See Federal Reserve Act, 12 U.S.C. §§ 225a, 248.

(Statutorily embeds transparency requirements—reporting, testimony, and disclosure—to prevent unaccountable monetary permanence.)

⁵⁵⁰ See Nicolin Decker, *Architectural Sovereignty Contagion (ASC): Monetary Architecture and Democratic Risk* (Forthcoming paper, 2026).

(Formalizes transparency as the primary constitutional defense against the normalization of authority without accountability.)

⁵⁵¹ See James Madison, *The Federalist No. 47*.

(Establishes that constitutional delegation is legitimate only when authority remains bounded, recallable, and subject to structural correction.)

⁵⁵² See U.S. Constitution, art. I, §§ 8–10.

(Reflects the Founders' assumption that extraordinary conditions require lawful discretion, delay, and accommodation rather than mechanical enforcement.)

⁵⁵³ See Lon L. Fuller, *The Morality of Law* (1964).

(Explains why law requires human judgment and adaptability, and why automatic systems undermine legality under stress.)

⁵⁵⁴ See Friedrich A. Hayek, *Law, Legislation and Liberty*, vol. I (1973).

(Distinguishes rule-based governance from rigid mechanization, warning that unalterable systems displace legal judgment.)

⁵⁵⁵ See Leonard L. Richards, *Shays's Rebellion: The American Revolution's Final Battle* (2002).

(Documents how rigid post-war debt enforcement produced unrest rather than stability.)

⁵⁵⁶ See Gordon S. Wood, *The Creation of the American Republic* (1969).

(Shows that the constitutional response to enforcement crises was institutional restraint, not elimination of obligation.)

⁵⁵⁷ See Karl N. Llewellyn, *The Bramble Bush* (1930).

(Explains how law fails when process replaces judgment, a key danger of rigid enforcement architectures.)

⁵⁵⁸ See U.S. Constitution, amend. V; amend. XIV.

(Anchors enforcement legitimacy in due process and representation, not mere effectiveness.)

⁵⁵⁹ See Hannah Arendt, *On Authority* (1961).

(Analyzes how authority without accountability produces domination rather than consent.)

⁵⁶⁰ See Alexis de Tocqueville, *Democracy in America*, vol. I.

(Explains why enforcement perceived as inevitable but unanswerable provokes resistance rather than compliance.)

⁵⁶¹ See *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).

(Affirms that enforcement authority must remain institutionally constrained and subject to correction.)

⁵⁶² See Cass R. Sunstein, *After the Rights Revolution* (1990).

(Shows how removal of discretion in the name of neutrality often eliminates democratic accountability.)

⁵⁶³ See U.S. Constitution, art. I, § 8; art. III.

(Confirms that authority which cannot be reviewed or recalled becomes functionally sovereign.)

⁵⁶⁴ See Barry Eichengreen, *Globalizing Capital* (1996).

(Explains how rigid financial architectures create path dependency that resists democratic correction.)

⁵⁶⁵ See *West Virginia v. EPA*, 597 U.S. ____ (2022).

(Reinforces that major governance authority must remain accountable to Congress, not embedded in self-executing systems.)

⁵⁶⁶ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Synthesizes Founding-era enforcement logic with modern system design, establishing rigidity as a constitutional fracture risk.)

⁵⁶⁷ U.S. Const. art. I, §§ 1, 8.

(Establishes Congress as the originating source of legislative authority over taxation, borrowing, and monetary powers, grounding democratic legitimacy in representative authorization.)

⁵⁶⁸ The Federalist No. 44 (James Madison).

(Explains why control over fiscal and monetary obligations must remain tied to representative government to prevent erosion of consent and public confidence.)

⁵⁶⁹ *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394 (1928).

(Articulates the intelligible principle doctrine, reinforcing that delegated authority must remain traceable to congressional authorization.)

⁵⁷⁰ *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).

(Clarifies that emergency conditions do not create independent executive authority absent congressional authorization.)

⁵⁷¹ The Federalist No. 47 (James Madison).

(Warns that concentration of power—especially during crisis—undermines liberty unless

constrained by institutional separation and accountability.)

⁵⁷² U.S. Const. art. I, § 8, cl. 18 (Necessary and Proper Clause).

(Provides the constitutional basis for ongoing legislative oversight and adjustment of delegated authorities.)

⁵⁷³ Gillian E. Metzger, *Administrative Law as the New Separation of Powers*, 57 *Duke L.J.* 2023 (2008).

(Demonstrates how oversight functions preserve legitimacy by preventing discretionary authority from hardening into unreviewable power.)

⁵⁷⁴ *Morrison v. Olson*, 487 U.S. 654 (1988).

(Affirms that institutional independence does not negate congressional oversight or accountability.)

⁵⁷⁵ Peter L. Strauss, *The Place of Agencies in Government: Separation of Powers and the Fourth Branch*, 84 *Colum. L. Rev.* 573 (1984).

(Explains why operational autonomy must coexist with democratic supervision to preserve constitutional balance.)

⁵⁷⁶ Bruce Ackerman, *The Emergency Constitution*, 113 *Yale L.J.* 1029 (2004).

(Argues that democratic legitimacy after crisis depends on formal processes of reauthorization and public reckoning.)

⁵⁷⁷ Sanford Levinson & Jack M. Balkin, *Constitutional Dictatorship*, 94 *Minn. L. Rev.* 1789 (2010).

(Analyzes how emergency powers become normalized absent legislative re-legitimation.)

⁵⁷⁸ *The Federalist* No. 51 (James Madison).

(Reinforces the necessity of post-crisis rebalancing to prevent the permanent accumulation of power.)

⁵⁷⁹ U.S. House of Representatives, Committee on Financial Services, *Oversight of Emergency Economic Authorities* (various hearings, 2009–2022).

(Demonstrates Congress's role in restoring legitimacy after crisis through inquiry, reporting, and statutory recalibration.)

⁵⁸⁰ Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Synthesizes constitutional structure, crisis governance, and democratic accountability into a unified doctrinal framework establishing Congress as the ultimate backstop.)

⁵⁸¹ See David A. Graeber, *Debt: The First 5,000 Years* (2011).

(Demonstrates that rigid debt enforcement under liquidity contraction produces systemic impossibility rather than discipline; foundational for understanding why fixed systems amplify stress.)

⁵⁸² See Merrill Jensen, *The New Nation: A History of the United States During the Confederation, 1781–1789* (1950).

(Documents monetary rigidity, enforcement crises, and legitimacy collapse under the Articles of Confederation.)

⁵⁸³ See James Madison, *Vices of the Political System of the United States* (1787).

(Identifies enforcement without settlement capacity as a structural failure motivating constitutional redesign.)

⁵⁸⁴ See Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (7th ed. 2011).

(Explains how fixed monetary constraints convert financial contraction into cascading defaults and legal breakdown.)

⁵⁸⁵ See Hyman P. Minsky, *Stabilizing an Unstable Economy* (1986).

(Establishes that systems lacking adaptive capacity amplify shocks rather than absorb them.)

⁵⁸⁶ See Douglass C. North, John Joseph Wallis & Barry R. Weingast, *Violence and Social Orders* (2009).

(Shows that when formal systems fail to accommodate stress, discretion migrates to informal, coercive, or arbitrary enforcement.)

⁵⁸⁷ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure* (2026).

(Articulates money's defining constitutional function as lawful termination of obligation.)

⁵⁸⁸ See Federal Reserve Bank of St. Louis, "Monetary Policy and Economic Stability," Review (var. years).

(Demonstrates elasticity as the mechanism by which limits remain governable rather than destructive.)

⁵⁸⁹ See Ben S. Bernanke, *The Courage to Act* (2015).

(Explains how immobility, not discretion, accelerates collapse during systemic stress.)

⁵⁹⁰ See Harold J. Berman, *Law and Revolution* (1983).

(Explores how rigid legal systems abdicate legitimacy under conditions of systemic strain.)

⁵⁹¹ See U.S. Supreme Court, *Home Building & Loan Ass'n v. Blaisdell*, 290 U.S. 398 (1934).

(Affirms that accommodation during crisis preserves constitutional order where rigid enforcement would fracture it.)

⁵⁹² See Alexander Hamilton, *Report on Public Credit* (1790).

(Establishes the founding principle that scarcity must be mediated through institutional accommodation to preserve legitimacy and continuity.)

⁵⁹³ See *The Federalist* No. 21 (Alexander Hamilton).

(Identifies the dual failure modes of monetary systems: rigidity that produces coercion and discretion that erodes legitimacy; foundational framing for accommodation versus enforcement.)

⁵⁹⁴ U.S. Const. art. I, § 8, cls. 1, 2, 5.

(Establishes that monetary elasticity is constitutionally permissible only as an incident of delegated legislative authority, not as autonomous power.)

⁵⁹⁵ See *The Federalist* No. 58 (James Madison).

(Explains why unchecked discretion—even when well-intentioned—undermines republican legitimacy by severing authority from accountability.)

⁵⁹⁶ See *Craig v. Missouri*, 29 U.S. (4 Pet.) 410 (1830).

(Judicial recognition that discretionary monetary issuance outside accountable institutions corrodes trust and destabilizes obligation.)

⁵⁹⁷ See *The Federalist* No. 44 (James Madison).

(Articulates the Founders' insistence that necessary governmental flexibility must remain subject to institutional restraint and public control.)

⁵⁹⁸ See Lon L. Fuller, *The Morality of Law* (1964).

(Establishes that authority producing consequences without traceable responsibility undermines the legitimacy of law itself.)

⁵⁹⁹ See Hannah Arendt, *On Revolution* (1963).

(Analyzes the erosion of legitimacy where outcomes are detached from identifiable authority and

public justification.)

⁶⁰⁰ See *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).

(Demonstrates the constitutional danger of emergency measures persisting beyond necessity without renewed authorization.)

⁶⁰¹ See Bruce Ackerman, *The Emergency Constitution*, 113 Yale L.J. 1029 (2004).

(Explains how crisis accommodations harden into precedent absent formal re-legitimation.)

⁶⁰² See Nicolín Decker, *Architectural Sovereignty Contagion*, §VIII.C (2026).

(Defines how unaccountable discretionary authority migrates into architecture rather than office.)

⁶⁰³ See Karl Polanyi, *The Great Transformation* (1944).

(Historical analysis of how market mechanisms can assume governance functions absent democratic control.)

⁶⁰⁴ See *INS v. Chadha*, 462 U.S. 919 (1983).

(Affirms that governance mechanisms insulated from recall or correction violate constitutional accountability.)

⁶⁰⁵ See *Home Building & Loan Ass’n v. Blaisdell*, 290 U.S. 398 (1934).

(Recognizes that constitutional accommodation is legitimate only when exercised within accountable legal frameworks.)

⁶⁰⁶ See Federal Reserve Act of 1913, 12 U.S.C. §§ 221–225a.

(Illustrates statutory conditions—authorization, transparency, and review—under which monetary elasticity is lawful.)

⁶⁰⁷ See *The Federalist No. 51* (James Madison).

(Explains why visibility, contestability, and institutional checks are prerequisites for durable legitimacy.)

⁶⁰⁸ See Jürgen Habermas, *Legitimation Crisis* (1973).

(Establishes that systems may function efficiently yet lose consent when accountability mechanisms are absent.)

⁶⁰⁹ U.S. Const. art. I, § 8; *The Federalist No. 30* (Alexander Hamilton).

(Establishes that monetary authority must be sufficient to preserve national continuity while remaining accountable to representative governance.)

⁶¹⁰ David A. Skeel, *Debt’s Dominion: A History of Bankruptcy Law in America* (2001).

(Demonstrates how rigid enforcement regimes convert economic stress into systemic failure rather than discipline.)

⁶¹¹ Articles of Confederation of 1781; Merrill Jensen, *The New Nation: A History of the United States During the Confederation* (1950).

(Documents the enforcement crises and legitimacy collapse produced by decentralized monetary rigidity.)

⁶¹² *The Federalist No. 44* (James Madison).

(Explains why constitutional monetary authority was centralized to prevent coercive fragmentation under stress.)

⁶¹³ Lon L. Fuller, *The Morality of Law* (1964).

(Establishes that discretion detached from accountability undermines legal legitimacy even when outcomes appear effective.)

⁶¹⁴ Friedrich A. Hayek, *Law, Legislation and Liberty*, Vol. I (1973).

(Explores how non-accountable systems can displace democratic authority while maintaining

functional efficiency.)

⁶¹⁵ U.S. Const. art. I, § 8, cls. 2, 5; *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).

(Confirms Congress's authority to structure monetary institutions while retaining constitutional accountability.)

⁶¹⁶ *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394 (1928).

(Articulates the delegation principle: authority may be exercised institutionally, but responsibility may not be abdicated.)

⁶¹⁷ Federal Reserve Act of 1913, 12 U.S.C. § 221 et seq.; Ben S. Bernanke, *The Courage to Act* (2015).

(Shows how elasticity paired with accountability preserved constitutional order during systemic crises.)

⁶¹⁸ Charles Kindleberger & Robert Aliber, *Manias, Panics, and Crashes* (2011).

(Provides historical evidence that unaccountable discretion or rigid systems both produce legitimacy collapse.)

⁶¹⁹ U.S. Const. art. I, § 10; *Home Building & Loan Ass'n v. Blaisdell*, 290 U.S. 398 (1934).

(Establishes that lawful accommodation preserves contractual legitimacy and constitutional continuity under stress.)

⁶²⁰ Bruce Ackerman, *We the People: Transformations* (1998).

(Explains how constitutional systems survive by governing discretion rather than denying it.)

⁶²¹ Administrative Procedure Act, 5 U.S.C. §§ 551–559; Federal Reserve transparency and reporting statutes.

(Demonstrates that visibility, review, and corrigibility are constitutional requirements for elastic authority.)

⁶²² Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Synthesizes Founding-era monetary logic, crisis jurisprudence, and modern institutional practice into a unified constitutional doctrine.)

⁶²³ See *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).

(Establishes money and fiscal authority as instrumental constitutional functions necessary to preserve national continuity under stress.)

⁶²⁴ See Articles of Confederation of 1781, arts. VIII–IX.

(Demonstrates the failure of rigid, decentralized monetary arrangements to accommodate crisis, resulting in fragmentation and enforcement without settlement.)

⁶²⁵ See Merrill Jensen, *The New Nation: A History of the United States During the Confederation, 1781–1789* (1950).

(Documents post-Revolutionary unrest, coercive debt enforcement, and legitimacy collapse arising from monetary rigidity.)

⁶²⁶ See James Madison, *Federalist No. 44*.

(Explains why the Constitution required institutional capacity to manage obligation rather than rely on mechanical enforcement.)

⁶²⁷ See *Panama Refining Co. v. Ryan*, 293 U.S. 388 (1935).

(Clarifies that discretionary authority without accountability undermines constitutional legitimacy.)

⁶²⁸ U.S. Const. art. I, § 8, cls. 2, 5.

(Vests monetary authority in public offices rather than objects or immutable mechanisms.)

⁶²⁹ See *Legal Tender Cases*, 79 U.S. (12 Wall.) 457 (1871).

(Affirms that monetary authority exists to preserve national survival and lawful settlement, not market purity.)

⁶³⁰ See Karl Polanyi, *The Great Transformation* (1944).

(Explains how rigid economic systems displace discretion into coercive enforcement under stress.)

⁶³¹ See *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952) (Jackson, J., concurring).

(Distinguishes lawful, accountable discretion from arbitrary power.)

⁶³² See Federal Reserve Act of 1913, 12 U.S.C. § 221 et seq.

(Operationalizes constitutional elasticity within bounded, accountable institutional authority.)

⁶³³ See Hyman Minsky, *Stabilizing an Unstable Economy* (1986).

(Demonstrates that systems incapable of adaptive response amplify crisis rather than discipline behavior.)

⁶³⁴ See *INS v. Chadha*, 462 U.S. 919 (1983).

(Confirms that delegation must preserve accountability and post-hoc legislative correction.)

⁶³⁵ See *Home Building & Loan Ass'n v. Blaisdell*, 290 U.S. 398 (1934).

(Affirms that lawful accommodation during crisis preserves constitutional order when paired with accountability.)

⁶³⁶ See Lon L. Fuller, *The Morality of Law* (1964).

(Explains how legitimacy erodes when governance migrates into opaque or non-correctable systems.)

⁶³⁷ See Nicolin Decker, *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity* (2026).

(Synthesizes Founding-era constitutional design with modern monetary architecture, establishing accountable elasticity as a doctrine of republican survival.)

The Doctrine of Anchored Decentralization

A Law for the Stateless Economy

Author: Nicolin Decker

Affiliation: Independent Study — Systems Architect, Policy and Economic Strategist

Date of Completion: December 1, 2025

Peer Review Requested

United States Government & Sovereign Institution Review (Requested)

The White House — National Security Council (NSC)

Review requested for national security implications, infrastructure resilience, and constitutional continuity.

Federal Reserve System — Board-Level Policy Architecture Review (Requested)

Review requested regarding sovereign monetary authority, reserve architecture, and lawful modernization pathways.

United States Department of the Treasury (Requested)

Review requested for constitutional compatibility of ACP and ABDC frameworks with federal fiscal and reserve governance.

United States Congress — Committee-Level Technical Review (Requested)

Review requested for statutory coherence, constitutional anchoring, and legislative deployment readiness.

Academic & Institutional Review Bodies (Requested)

Harvard Law School — Constitutional Theory & Financial Regulation Review

Faculty reviewers specializing in constitutional structure, administrative law, and financial regulatory architecture.

Massachusetts Institute of Technology — Digital Systems & Cryptographic Architecture Review

Researchers in distributed systems engineering, cryptography, and consensus architecture.

Yale School of Management — Macroeconomics & Governance Review

Scholars in global market infrastructure, monetary design, and institutional accountability.

Brookings Institution — Governance Studies & Financial Policy Review

Senior fellows in regulatory modernization, digital asset governance, and democratic accountability.

RAND Corporation — National Security & Emerging Technology Review

Analysts specializing in digital infrastructure risk, decentralized systems, and geopolitical implications.

Stanford Hoover Institution — Economic Policy & Technology Governance Review

Reviewers focusing on economic resilience, legal-tech alignment, and institutional stability.

Carnegie Endowment for International Peace — Digital Governance & Global Coordination Review

Experts in cross-border digital systems, international regulatory coherence, and global governance norms.

U.S. Naval War College — Strategic Implications of Distributed Technologies Review

Scholars analyzing decentralized systems in national security, verification, and sovereignty frameworks.

CFTC & SEC Alumni Review Panel (Informal Advisory)

Former senior officials providing regulatory interpretation and statutory alignment perspectives.

No Endorsement or Institutional Affiliation.

The identification of governmental bodies, academic institutions, and policy organizations within this Doctrine is for purposes of scholarly review, analytical rigor, and doctrinal testing only. Nothing in this work shall be construed as representing, implying, or asserting endorsement, sponsorship, approval, or official affiliation by any federal, state, or international governmental entity, academic institution, military body, or private organization referenced herein.

All references to such institutions are made solely to indicate the intended scope of expert review, intellectual rigor, and constitutional alignment sought by the author. This work remains an independent scholarly and doctrinal analysis and does not reflect the official views, positions, or policies of the United States Government, the Federal Reserve System, the Department of the Treasury, Congress, or any other named entity.

Abstract

The Doctrine of Anchored Decentralization constitutes the first comprehensive constitutional and statutory framework capable of reconciling decentralized digital architectures with the legal, regulatory, and jurisprudential structure of the United States. Developed within the broader scholarly series *The Republic's Conscience*, this thesis represents the second installment in that corpus—building directly upon the constitutional and structural principles articulated in the inaugural paper and extending them into the domain of digital-asset governance, administrative delimitation, and federal statutory coherence.

This work advances the nation's first universal, architecture-based commodity-versus-security classification framework designed for deployment across American constitutional, statutory, and judicial systems. By replacing rhetorical claims of decentralization with empirically verifiable and legally cognizable structural tests, the Doctrine furnishes courts, Congress, and administrative agencies with a coherent, adjudicable methodology capable of withstanding scrutiny under established Supreme Court jurisprudence, including *Howey*, *Reves*, *Forman*, *Marbury*, and the post-*Chevron* administrative landscape.

The Doctrine challenges the prevailing assumption that blockchain-based ecosystems may operate as “stateless” economic systems while still participating in markets governed by constitutional law. Through sustained analysis of constitutional text, statutory construction, cryptographic system design, and post-*Chevron* administrative jurisprudence, the work demonstrates that decentralization cannot acquire legal legitimacy unless it remains anchored to the Chain of Consent — the constitutional requirement that all economic power be traceable to accountable authority.

Drawing upon Article I, § 8 (monetary and commercial power), Article I, § 9 (appropriations and fiscal discipline), and the Due Process Clauses of the Fifth and Fourteenth Amendments, the Doctrine establishes that most contemporary decentralized systems operate within a constitutional vacuum: they perform value transfer, economic coordination, and pseudo-monetary behavior without satisfying the representational prerequisites of the American constitutional order. This analysis is further grounded in *Trustees of Dartmouth College v. Woodward*, *Gibbons v. Ogden*, *Wickard v. Filburn*, *United States v. Lopez*, *NFIB v. Sebelius*, and the post-*Loper Bright* landscape of statutory interpretation, revealing how modern digital governance architectures strain the boundaries of jurisdiction, accountability, and enforceability.

At the systems-engineering level, the Doctrine reframes decentralization not as a monetary phenomenon but as a cryptographic lineage derived from Haber and Stornetta's foundational timestamping architecture. This lineage demonstrates that Bitcoin's core innovation was not the creation of new money, but the operationalization of a distributed verification engine. The work therefore distinguishes decisively between decentralization as architectural substrate and cryptocurrency as asset behavior, establishing that most digital tokens cannot qualify as commodities under the Commodity Exchange Act absent a constitutionally anchored framework for origin accountability, managerial neutrality, and market integrity.

The Doctrine exposes structural defects in modern legislative approaches — including H.R. 3633 — demonstrating how contemporary statutory efforts misapply classical commodity theory, create jurisdictionally unanchored digital entities, and institutionalize anonymity architectures that undermine due process, enforcement capacity, and market legitimacy. In response, this work develops the Anchored Decentralization Test, the first system-level doctrine to allow Congress, courts, and regulators to classify digital assets based on verifiable architectural behavior rather than semantic self-description.

The Doctrine further introduces the novel concept of Autonomous Commodity Primitives (ACPs) — a sovereign-grade digital infrastructure class designed not as speculative instruments but as immutable, cryptographic attestations of real-world sovereign reserve assets. ACPs are engineered to function as Treasury-grade verification rails, enabling real-time auditability, ledger-level integrity, and constitutionally compliant Asset-Backed Digital Currency (ABDC) architecture. Unlike cryptocurrencies, ACPs do not manufacture value; they attest to value that already exists within sovereign reserve systems.

To harmonize privacy with constitutional accountability, the Doctrine integrates Zero-Knowledge Proofs, privacy-preserving audit layers, and non-custodial verification mechanisms, allowing digital systems to preserve Fourth Amendment-equivalent privacy while maintaining lawful traceability through institutional channels. This design restores the Chain of Consent without creating surveillance architecture.

The Doctrine concludes that decentralization without accountability constitutes a structural form of constitutional evasion — an economy operating beyond representation. By restoring constitutional anchoring to distributed architectures, the Doctrine preserves innovation while reaffirming the Republic's foundational principle: that economic power is legitimate only when traceable to those whom the Constitution recognizes as sovereign.

Ultimately, The Doctrine of Anchored Decentralization provides a constitutional roadmap for the next century of digital infrastructure. It is *not a rejection* of decentralized technology, but a *restoration* of its lawful purpose: to function as a verifiable architecture of trust, anchored to the constitutional principles that have sustained the United States for more than two centuries.

Dedication

To Eva and Giana,

As I wrote these pages, my deepest concern was not whether I was capable, but whether my heart was in the right place. *Everything I have built was shaped by that quiet question.*

To be honest about our failures so that others may never have to walk the same hard roads is a kind of love. It is *not a heavy burden*, but a *sacred one* — the gentle weight of *choosing truth, humility, and peace, even when it costs something of ourselves.*

In this letter, I want to give you a *simple truth*: there will be moments in your lives when the path forward feels unclear. In those moments, *pray*. Pray *without fear*, and pray *without ceasing*, until the answer settles gently into your heart. When it does, it will bring a peace that the world cannot take away. In these moments, I found peace — *and so I stand.*

Know this always: *the choices you make today quietly shape the beautiful life waiting for you tomorrow.*

Walk in *faith*, walk in *love*, and *never forget* — *God is good, and He is always near.*

With all my love,

Dad

Dum Spiro, Spero

Declaration of Intent

[\(Return to TOC\)](#)

This dissertation is undertaken with a single, disciplined purpose: to establish a coherent legal and constitutional framework for decentralized systems operating within the jurisdiction of the United States. As technological architectures evolve beyond traditional borders, institutions, and intermediaries, the Republic faces an unprecedented question: *Can a stateless economic system coexist within a constitutional order premised on representation, accountability, and traceable authority?*

The Doctrine of Anchored Decentralization is written to answer that question—not aspirationally, not rhetorically, but architecturally and constitutionally.

I. Methodological Commitment

This work proceeds from four deliberate commitments:

1. **Constitutional Fidelity.**

Every conclusion must align with the structural logic of the Constitution: the distribution of power in Articles I–III, the representational mandates of due process, and the fiscal constraints of Article I, § 9. No theoretical model of decentralization may supersede the sovereignty of the governed or diminish the primacy of the Chain of Consent.

2. **Technological Accuracy.**

The analysis honors the engineering realities of distributed ledger systems, cryptographic timestamping, consensus algorithms, and token economics. The methodology acknowledges the lineage from Haber–Stornetta to Nakamoto and differentiates between decentralization as *architecture* and cryptocurrency as *asset*.

3. **Regulatory Neutrality.**

The work evaluates statutory regimes administered by the SEC, CFTC, FinCEN, and other agencies without presuming the adequacy of existing frameworks. It applies doctrinal reasoning to statutory gaps but makes no presumption that any agency should or should not regulate digital assets. The inquiry is structural, not political.

4. **Interdisciplinary Integrity.**

Consistent with Harvard Law’s standards, this dissertation integrates constitutional law, administrative law, economic theory, cryptographic engineering, and sovereignty studies. No siloed perspective is sufficient; only interdisciplinary evaluation can uphold the rigor necessary for a century-spanning doctrine.

II. Scope and Boundaries of the Inquiry

This dissertation does not evaluate the price, popularity, or market prospects of any cryptocurrency.

It does not advocate for or against Bitcoin, nor does it assume that digital assets should be prohibited, promoted, or preferred relative to traditional financial instruments.

Instead, the inquiry is narrower and deeper:

- **What is the constitutional status of a decentralized network?**
- **How must law evolve to preserve accountability without suppressing innovation?**
- **What doctrinal refinements are necessary to prevent stateless economic systems from undermining representative governance?**
- **How must decentralization be anchored to maintain compatibility with the American legal order?**

The analysis does not presume that decentralization is inherently destabilizing, nor that anonymity is inherently unlawful. Rather, it assumes the central question of constitutional legitimacy: *Can value move lawfully within the Republic if it cannot be traced to the consent and accountability structures that define the Republic itself?*

III. Intellectual Neutrality and Institutional Positioning

This work is written as an independent constitutional and systems-architecture doctrine. It is not authored in the service of any digital asset issuer, exchange platform, policy advocacy organization, regulator, or private enterprise. While informed by scholarship and institutional frameworks associated with Harvard Law School, the Berkman Klein Center, the MIT Digital Currency Initiative, Brookings Institution, RAND Corporation, and the Hoover Institution, this Doctrine is not sponsored, commissioned, or endorsed by any such institution.

The author affirms that no patents have been filed, are pending, or are intended to be filed for any of the structural tests, architectural concepts, governance frameworks, or system classifications introduced herein. No proprietary rights are claimed over the operational logic, constitutional models, or technical architectures set forth in this Doctrine. These contributions are offered freely into the public intellectual domain.

This framework has been developed for deployment within the constitutional and statutory architecture of the United States. However, the structural logic is designed to be jurisdictionally translatable for foreign sovereigns seeking lawful modernization of their own digital monetary, commodity, or ledger infrastructures.

This work further affirms that the original breakthrough of Haber and Stornetta, and later Nakamoto, was not the invention of currency, but the discovery of a verifiable monetary

architecture — a system of distributed truth that permits trust without centralized coercion. This Doctrine stands as a course correction in defense of that architectural lineage: *not to create money, but to restore the lawful design of money systems.*

The purpose of this Doctrine is not dominance, market share, or control. It is institutional service. The responsibility of the system architect is not to hoard design, but to give it freely — to withhold no good structure from those who must build, even before they are aware of the need.

The Doctrine stands on its own merits. Its conclusions are not assumed. They are derived.

IV. Purpose and Justification

The central conviction of this Declaration is that *decentralization is neither inherently lawful nor unlawful—it is simply ungoverned space awaiting constitutional articulation.* Without that articulation, the United States faces a future in which:

- economic power can be exercised without representation,
- value can move without accountability,
- algorithms can coordinate activity beyond legal jurisdiction,
- and the constitutional architecture that binds the Republic risks quiet erosion.

This dissertation exists to prevent that erosion.

It is written not to resist innovation but to secure it; not to diminish decentralization but to anchor it; not to restrict the future but to ensure it remains compatible with the principles that define the American experiment.

V. Statement of Intent

Therefore, the intent of this work is clear:

to restore the Chain of Consent to emerging digital architectures, ensuring that decentralization—wherever it evolves, however it manifests—remains a participant in the constitutional order, not an escape from it.

This Doctrine is submitted with the understanding that technological evolution is inevitable, *but constitutional abandonment is not.* The Republic *can* and *must* adapt. But it must do so without surrendering the principles that have preserved its legitimacy for more than two centuries.

Authorial Standing — Qualifications, Methodological Competence, and Jurisprudential Relevance

[\(Return to TOC\)](#)

Statement of Purpose

The purpose of this section is to articulate, with clarity and constitutional precision, the author's standing to speak on matters of sovereign digital policy, statutory compliance, and blockchain-anchored governance. In a domain where technological claims often outpace legal grounding, and where digital-asset discourse frequently lacks methodological rigor, it is necessary to establish not merely expertise, but *jurisprudential relevance*—the author's demonstrated capacity to interpret, operationalize, and reconcile law with programmable systems at the level required for sovereign adoption.

This section therefore defines three pillars of authorial legitimacy:

1. **Qualifications** — the doctrinal, legal, economic, cryptographic, and engineering foundations that establish competence to analyze emerging digital infrastructure through the lens of constitutional governance.
2. **Methodological Competence** — the disciplined analytical frameworks, simulation models, statutory mappings, and verification standards that ensure every claim herein is grounded in reproducible method rather than speculative conjecture.
3. **Jurisprudential Relevance** — the demonstrated ability to translate federal law, agency mandates, fiduciary doctrine, and constitutional constraints into executable digital architectures that withstand judicial scrutiny and satisfy sovereign operational requirements.

This section is not an appeal to authority.

It is a declaration of responsibility.

The analyses and architectures advanced in *The Doctrine of Anchored Decentralization* rest on the premise that digital systems influencing national finance, public trust, evidentiary integrity, or electoral legitimacy must be designed, critiqued, and evaluated by individuals capable of operating at the intersection of law, governance, and computational architecture.

By establishing the author's standing at the outset, this section ensures that every subsequent argument—legal, fiduciary, economic, and cryptographic—is interpreted within the appropriate doctrinal frame. It provides the constitutional scaffolding, methodological footing, and evidentiary grounding that allow this work to serve not merely as commentary, but as an academically defensible, sovereign-relevant doctrine for the digital era.

I. Standards for Standing

The Doctrine of Anchored Decentralization asserts claims that intersect with constitutional structure, federal jurisdiction, administrative enforcement, and the legality of sovereign-aligned decentralized systems. Any doctrine purporting to analyze, critique, or prescribe federal-compatible digital architectures must first establish *standing*—that is, the legal capacity, intellectual authority, and doctrinal basis to speak within the domain it seeks to organize.

The following standards outline the threshold requirements that justify the author’s standing within this doctrinal work. They parallel the analytic rigor of Article III standing, but extend beyond it to encompass *scholarly standing*, *jurisdictional competence*, and *doctrinal credibility* consistent with Harvard Law standards of authorship.

A. Constitutional Competence Standard

A scholar asserting claims about federal jurisdiction over decentralized systems must demonstrate fluency in the constitutional doctrines that govern them. Standing requires:

1. Mastery of Structural Constitutional Law

- Commerce Clause applicability to digital and extraterritorial behavior
- Supremacy Clause preemption analysis
- Nondelegation doctrine boundaries for computational governance
- Tenth Amendment implications for state–federal allocation of authority

2. Demonstrated capacity to interpret Supreme Court tests relevant to digital systems, including:

- *Howey* (securities classification)
- *Reves* (instrument categorization)
- *Forman* (non-investment contractual interests)
- *Melendez-Diaz* / *Crawford lineage* (evidentiary confrontation in cryptographic systems)

3. Ability to apply constitutional text to computational environments, ensuring claims remain within established jurisprudential constraints.

This work satisfies this standard through its underlying published theses, where constitutional tests are operationalized into executable smart-contract categories and jurisdictional compliance layers.

B. Statutory and Regulatory Competence Standard

Standing additionally requires mastery over the statutory regimes implicated by decentralized infrastructures. A qualified doctrinal architect must demonstrate:

1. **Operational fluency in federal financial and fiduciary statutes**, including:
 - Securities Act of 1933
 - Exchange Act of 1934
 - Bank Secrecy Act (BSA)
 - OFAC sanctions authorities
 - Internal Revenue Code (Subchapter K, information-return statutes)
 - Dodd-Frank operational resilience mandates
 - ERISA prudence obligations
2. **Capacity to map statutory requirements into enforceable computational logic**, ensuring decentralized systems are not extra-statutory but statutorily executable.
3. **Demonstrated record of federal-compatible design** as evidenced by:
 - SEC-filed infrastructures (Regulation D, CIK registrations)
 - IRS-aligned yield frameworks
 - FinCEN-ready AML workflows
 - OFAC-compliant sanctions filtration mechanisms

This work meets the statutory standing requirement through the author's prior architectures (NEXUS3, FRYT, CLEARfund™, Sovereign Ledger Doctrine™, etc.), which are already recognized as regulator-aligned implementations.

C. Administrative Standing Standard

Harvard Law scholarship requires a doctrinal author to demonstrate fluency not only in statutes but in the *agency ecosystems* that enforce them.

Standing requires:

1. **Working knowledge of the administrative capacities and constraints of:**
 - SEC

- CFTC
- IRS
- FinCEN
- OFAC
- Treasury
- DOJ/OIG
- CMS, DOT, NHTSA, ONC (for cross-domain infrastructures)

2. Demonstrated ability to translate administrative enforcement mandates into programmable rules, including:

- eligibility filters
- sanctions logic
- yield classification logic
- fiduciary gating
- KYC identity scaffolding

3. Evidence that prior works have been structured for real agency recall, auditability, and oversight, not merely theoretical abstraction.

The author's architectures (FRAFI, FRYT, CLEARfund™, NATRA, ARX-NAVIS, HELIX) collectively establish this administrative competency.

D. Technical Standing Standard

Because DAC is a doctrine that binds legal structures to decentralized computational systems, standing also requires the author to possess demonstrable competence in:

- 1. Smart-contract architecture**
- 2. Cryptographic design and auditability**
- 3. DAO governance modeling**
- 4. Market, yield, and fiduciary computational logic**
- 5. Chain-of-custody, ZKP, and evidentiary cryptography**

Without this dual fluency, a legal doctrine addressing decentralization would be incomplete and potentially misleading.

The author's body of work—including DEFIANCE™, FPERL, Sovereign Ledger Doctrine™, and Immutable Proof Doctrine™—constitutes the technical basis for standing.

E. Jurisprudential Standing Standard

To assert a doctrine that evaluates decentralization through constitutional anchoring, the author must demonstrate:

1. **Scholarly independence** (no institutional conflict)
2. **Doctrinal coherence** across multiple sovereign infrastructures
3. **Publication of peer-accessible, legally grounded frameworks**
4. **Demonstrated ability to unify legal theory, economic doctrine, and infrastructure design**

This standard is satisfied through the author's multi-doctrinal corpus, spanning agricultural, financial, mobility, healthcare, and forensic infrastructures—each grounded in constitutional and administrative law.

F. Normative Standing Standard

A doctrine seeking to reshape national or global digital governance must show:

1. **A legitimate normative purpose**—the protection of sovereignty, fiduciary integrity, and the chain of democratic consent.
2. **Demonstrable safeguards against extralegal volatility, speculative bypass, or jurisdictional evasion.**
3. **A commitment to constitutional stewardship**, not abstraction or ideological redefinition.

DAC satisfies this standard by anchoring all decentralization not to sentiment or private gain, but to:

- constitutional authority,
- fiduciary duty,
- jurisdictional accountability, and
- the chain of consent.

G. Final Determination of Standing

Under the integrated standards of constitutional competence, statutory literacy, administrative fluency, technical architecture proficiency, and jurisprudential coherence, the author satisfies the structural prerequisites necessary to advance a comprehensive legal doctrine governing decentralized systems.

The Doctrine of Anchored Decentralization is not advanced as personal opinion, technological advocacy, or ideological theory. It is presented as a methodologically disciplined legal construct, developed through direct operational fluency in decentralized infrastructure and grounded in established constitutional, statutory, and administrative law frameworks.

Where prevailing literature has tended to bifurcate legal analysis from technical systems design, this Doctrine arises from unified architectural competence—allowing decentralized systems to be evaluated not as abstract innovations, but as operational legal objects subject to constitutional, jurisdictional, and fiduciary constraint.

Accordingly, this work is offered as a formally cognizable doctrine within the fields of constitutional governance, sovereign digital architecture, and economic systems law, capable of satisfying the evidentiary, analytical, and methodological standards applied by courts, administrative bodies, and legislative counsel.

II. Foundational works establishing competence

Category I — Foundational Works Establishing Competence in Law

Category I establishes the author’s legal foundation—the jurisprudential, statutory, and doctrinal competencies that undergird the entirety of the Doctrine of Anchored Decentralization (DAC). These works demonstrate mastery across the domains of federal statutory interpretation, constitutional structure, fiduciary doctrine, administrative law, and transnational regulatory frameworks, forming the legal scaffolding upon which all subsequent technical architectures are built.

Where Category II proves the author’s engineering capacity to construct sovereign-grade decentralized systems, Category I establishes the author’s *jurisdictional authority* to define, evaluate, and constrain those systems under the rule of law. Together, they form the dual pillars of DAC: *legal legitimacy and architectural competence*.

Category I fulfills four defining purposes.

1. Establishing Doctrinal Fluency in U.S. Constitutional and Statutory Law

The works in this category demonstrate the author’s ability to interpret and apply foundational federal doctrines—including the Commerce Clause, Supremacy Clause, Due Process, Equal Protection, nondelegation boundaries, fiduciary obligations, and statutory construction principles—to emerging digital infrastructure.

This category affirms the author’s competence to determine:

- whether a decentralized system is constitutionally admissible,
- how federal supremacy interacts with sovereign digital corridors,
- which doctrines govern yield, trust, and fiduciary execution,
- and how administrative agencies obtain enforcement jurisdiction over cryptographic systems.

These competencies are essential to DAC’s central thesis: decentralization must remain *within*, not outside, constitutional constraints.

2. Demonstrating Mastery of Federal Fiduciary Doctrine

Category I includes foundational works articulating fiduciary duty under:

- Restatement (Third) of Trusts

- ERISA prudence doctrine
- 12 C.F.R. Part 9
- DOJ fiduciary enforcement standards
- IRS Subchapter K information-return jurisprudence

This expertise provides the legal basis for FRAFI, FRYT, NEXUS3, CLEARfund™, and other architectures that embed fiduciary logic directly into executable smart contracts.

Category I therefore establishes the author's rare ability to convert *legal obligations into computational obligations*, ensuring that decentralized systems are not only compliant but enforceable.

3. Establishing Competence in Administrative and Agency Jurisdiction

The works in this section demonstrate the author's fluency in multi-agency frameworks that govern decentralized systems:

- SEC (securities classification, exemptions, Reg D)
- CFTC (anti-manipulation, commodity jurisdiction)
- IRS (tax event logic, Subchapter K, K-1 issuance)
- FinCEN (AML/BSA enforcement)
- OFAC (sanctions filtration)
- DOJ/OIG (fiduciary and criminal enforcement)
- GAO/Treasury (auditing and oversight)

This category proves the author's ability to engineer systems that remain administratively enforceable without requiring legislative reform—an essential requirement for sovereign-compatible decentralization.

4. Establishing Jurisprudential Competence Across Sovereign and International Regimes

Category I includes works addressing:

- cross-border treaty frameworks
- constitutional sovereignty and federalism

- international oversight regimes (e.g., GDPR, OECD, Basel III, ICCPR)
- legal constraints on transnational trust, data, and infrastructure corridors

Because DAC is inherently a doctrine of *anchored* decentralization, international legal literacy is essential—anchoring systems to jurisdictional identity, preventing sovereign bypass, and ensuring treaty-compatible deployment.

Purpose Within DAC

Category I is foundational to the Doctrine of Anchored Decentralization because it provides the *legal legitimacy* required to evaluate, constrain, and reinterpret decentralized systems through constitutional doctrine and statutory authority. It affirms the author's standing not only as an engineer of sovereign infrastructures but as a *jurisprudential architect*—capable of translating legal mandates into technical design principles and ensuring that every decentralized architecture remains tethered to the chain of consent.

If Category II proves that the author can *build* sovereign systems, Category I proves that the author can *govern* them.

1) The Doctrine of Constitutional Self-Restraint: Government Shutdowns as Lawful Contractions in the American Republic (2025)

Scholarly Summary

This work establishes a novel constitutional theory—that federal government shutdowns represent not dysfunction, but deliberate, lawful contractions embedded within the structural design of Article I. By reconstructing the statutory history of the Antideficiency Act (1870) and Attorney General Civiletti’s 1980–81 interpretations, the paper demonstrates that shutdowns arise from constitutional fidelity rather than bureaucratic failure. Through an integrated analysis of *Youngstown*, *Train v. City of New York*, *INS v. Chadha*, and *OPM v. Richmond*, the study shows that the Constitution intentionally engineers conflict between branches to prevent fiscal power from escaping legislative consent. Empirical analysis of shutdowns from 1980–2025 further supports that such contractions function as constitutional pressure valves, restraining executive drift and reaffirming the core doctrine of “no taxation or expenditure without representation.” In contrast to parliamentary systems that default to automatic appropriations, this paper positions the American shutdown as a uniquely republican expression of lawful restraint, where government pauses rather than violates its own architecture.

Relevance to *The Doctrine of Anchored Decentralization*

This work establishes the author’s command of constitutional structure, fiscal authority, and the representational logic of Article I—competencies essential for evaluating whether decentralized networks comport with the Chain of Consent. The Doctrine of Constitutional Self-Restraint demonstrates mastery of how legitimacy is maintained through *enforced boundaries*, not continuous operation, and how constitutional design treats interruptions of power as mechanisms of integrity rather than breakdown. That analytical lens directly informs DAC’s central argument: decentralized systems must remain accountable to the representational architecture of the Republic, or they risk operating as extra-constitutional economic actors. By proving that lawful contraction is a constitutional safeguard, the author establishes the jurisprudential foundation for arguing that decentralization without accountability is not innovation but constitutional evasion. This foundational work therefore validates the author’s authority to articulate the constitutional conditions under which decentralized systems may operate within the United States.

2) The U.S. Dollar in Crisis: The Role of Asset-Backed Digital Currencies in Its Transformation (2025)

Scholarly Summary

This thesis provides a comprehensive monetary and macro-financial analysis of the structural vulnerabilities facing the U.S. dollar in its role as the global reserve currency, offering Asset-Backed Digital Currencies (ABDCs) as a constitutionally compatible stabilizing architecture. Through historical review—from the collapse of Bretton Woods to the rise of decentralized cryptocurrencies—the study identifies inflationary drift, geopolitical fragmentation, and fiat issuance volatility as core weaknesses in the current global monetary order. Employing DSGE models, VAR analysis, and Monte Carlo simulations, it assesses how ABDCs could counteract systemic shocks, reduce reliance on discretionary monetary expansion, and reintroduce asset discipline into U.S. currency operations. Backtesting against the 2008 crisis and COVID-19 recession demonstrates that ABDCs could have materially softened liquidity collapses and deflationary spirals. The thesis outlines a phased integration strategy—ranging from Federal Reserve adoption to a U.S.-operated Federal Exchange for settlement—accompanied by legal reforms to harmonize ABDCs with central banking mandates, international regulatory obligations, and cross-border financial flows. The work concludes that ABDCs could preserve U.S. monetary sovereignty while adapting to a multipolar, digitally-mediated global economy.

Relevance to *The Doctrine of Anchored Decentralization*

This thesis establishes the author's mastery of monetary architecture, sovereign digital currency design, and macroeconomic validation—competencies essential for evaluating whether decentralized systems can remain lawful within the constitutional and fiscal constraints of the United States. The study demonstrates fluency in the modeling tools (DSGE, VAR, Monte Carlo) that quantify systemic risk—tools directly applicable to DAC's analysis of decentralized economic behavior, volatility, and representational vacuums. By examining ABDCs as asset-supported, accountability-anchored instruments, the work provides a rigorous comparative foundation for distinguishing lawful digital value systems from stateless cryptocurrencies. Its analysis of U.S. monetary sovereignty, appropriations constraints, and global financial governance directly informs DAC's central argument: that digital systems must preserve constitutional traceability and fiscal discipline to operate within Article I's chain of consent. This work therefore substantiates the author's authority to critique digital commodities, assess their compatibility with U.S. fiscal structures, and articulate a legally coherent architecture for decentralized systems.

3) Zero-Knowledge Proofs: Cryptographic Model for Financial Compliance and Global Banking Security (2025)

Scholarly Summary

This thesis constructs a full-spectrum cryptographic compliance architecture that reconciles AML/KYC mandates with individual financial privacy by introducing the Decker-ZKP Compliance Model—an integrated framework enabling banks, regulators, and global financial institutions to verify compliance obligations without disclosing sensitive customer or institutional data. Using formal mathematical proofs of soundness, completeness, and zero-knowledge, the study demonstrates how ZKPs can cryptographically enforce compliance in transaction monitoring, Basel III liquidity verification, fraud detection, credit assessments, and interbank payments. The work further introduces AI-augmented zero-knowledge fraud detection and a novel Basel III ZKP-Liquidity Protocol allowing institutions to prove capital adequacy without revealing balance-sheet details. Through Monte Carlo simulations, backtesting of institutional risk datasets, and post-mortem analyses of major financial failures (SWIFT breaches, Basel III stress anomalies, AML enforcement breakdowns), the thesis validates that centralized compliance architectures create systemic fragility, while ZKP-based architectures reduce regulatory costs, tighten fraud detection, and eliminate surveillance overreach. It positions ZKPs as a globally harmonized compliance standard aligned with IMF, FATF, and BIS frameworks—effectively redefining financial oversight for a digital, multijurisdictional economy.

Relevance to *The Doctrine of Anchored Decentralization*

This thesis establishes the author's technical and doctrinal authority to define a constitutional framework for decentralization by demonstrating mastery over the privacy-preserving verification technologies that allow decentralized systems to remain compatible with due process and the Chain of Consent. Zero-knowledge proofs form the essential bridge between decentralization and accountability: they enable lawful traceability without identity exposure, regulatory compliance without surveillance, and privacy without opacity. These capabilities directly support DAC's central claim that decentralized systems can only remain constitutionally legitimate if their economic activity is cryptographically verifiable within Article I's representational requirements. By proving how ZKPs enforce compliance, prevent overreach, and preserve integrity across global banking systems, this work provides the jurisprudential and technical foundation for asserting that decentralized commerce can be regulated constitutionally without abolishing privacy. It confirms the author's competence to articulate a national model in which decentralization remains free, verifiable, and anchored to the constitutional architecture of accountability.

4) The Bitcoin Contagion: Institutionalization, Systemic Risk, and Financial Warfare (2025)

Scholarly Summary

This whitepaper offers the first comprehensive, quantitative assessment of Bitcoin as a systemic financial accelerant, demonstrating that its institutional integration has transformed it from a speculative digital asset into a structural conduit for financial contagion. The study introduces the Decker Sentiment-Short Interest Model (DSSIM), which unifies sentiment analytics, derivatives positioning, and high-frequency trading distortions into a single predictive architecture. Empirical validation through VAR analysis, EGARCH volatility modeling, Monte Carlo stress-testing, and Bayesian Structural Equation Modeling reveals that Bitcoin ETF structures exhibit inherent liquidity mismatches, leverage multipliers, and forced-liquidation cascades that can transmit shock across equity, credit, and derivatives markets. Comparative analysis shows that DSSIM materially outperforms SRISK, CoVaR, and Basel III systemic risk metrics by incorporating sentiment-driven volatility contagion and synthetic short-pressure feedback loops unique to crypto-integrated markets. The Bitcoin Systemic Contagion Model further quantifies a 3.2x leverage-risk multiplier relative to traditional derivatives during ETF liquidation events, forecasting that Bitcoin's integration into TradFi increases the likelihood of correlated flash crashes and amplifies systemic instability during macroeconomic stress.

Relevance to *The Doctrine of Anchored Decentralization*

This work substantiates the author's authority to evaluate decentralized systems within constitutional and regulatory frameworks by demonstrating mastery over systemic risk modeling, cross-market contagion theory, and the mechanics by which decentralized assets destabilize institutional financial systems. The thesis directly informs DAC's argument that decentralized assets cannot be treated as commodities or stateless instruments when their behavior resembles leveraged derivatives capable of triggering market-wide failures. By proving that Bitcoin's institutionalization magnifies volatility, produces sentiment-driven cascades, and creates structural fragilities incompatible with unregulated markets, this research establishes the empirical foundation for DAC's conclusion that decentralized financial systems must be anchored to accountability and oversight. The ability to quantify contagion transmission, ETF-based leverage multipliers, and the systemic implications of decentralized assets provides the jurisprudential competence required to assess whether digital systems fit within Article I's constitutional boundaries and the Chain of Consent. This foundational work situates the author as uniquely qualified to articulate the constitutional conditions under which decentralized economic architectures may operate within a representative republic.

5) Measuring Cryptocurrency Maturity: A Network-Centric Framework Using the Decker Comparative Maturity Equation (DCME) (2025)

Scholarly Summary

This dissertation develops the Decker Comparative Maturity Equation (DCME), the first quantitative framework capable of assessing cryptocurrency maturity through network-centric metrics rather than speculative valuation heuristics. Incorporating the Institutional Adjustment Factor (I_{adj}), DCME evaluates maturity as a dynamic function of network decentralization, volatility structure, scaling behavior, and the dual impact of institutional participation. Through Monte Carlo simulations, VAR modeling, econometric regression, and machine-learning classification, the study empirically demonstrates that institutional ownership exceeding 40% produces centralization pressure, volatility suppression, liquidity concentration, and heightened susceptibility to ETF-driven distortions. The dissertation introduces the Comparative Maturity Ratio (CMR), enabling cross-asset benchmarking between cryptocurrencies, fiat currencies, sovereign bonds, equities, and commodities. It further evaluates maturity under geopolitical and macroeconomic stressors—including inflationary currency collapses, regulatory arbitrage, and financial-warfare dynamics—and models the interaction between decentralized adoption, self-custody trends, and forthcoming CBDC frameworks. The work concludes that cryptocurrency maturity is not a function of price or age, but of structural decentralization, network integrity, and the degree to which institutional concentration destabilizes organic growth.

Relevance to *The Doctrine of Anchored Decentralization*

This dissertation provides the empirical and conceptual foundation for DAC's argument that decentralization is an *architectural property measurable in law*. By establishing a mathematical model that quantifies centralization drift, institutional capture, and maturity degradation, this work equips the author to analyze whether decentralized systems can meet the constitutional threshold of accountability required by Article I and due process. DCME's Institutional Adjustment Factor directly supports DAC's analysis that decentralized networks cannot claim commodity status, constitutional neutrality, or jurisdictional evasion when their maturity and volatility are materially shaped by concentrated institutional actors. The study's cross-comparison of decentralized networks with sovereign currencies, CBDCs, and traditional financial instruments demonstrates the author's competence in assessing whether digital systems behave as commodities, currencies, or unregulated derivatives—an essential distinction in DAC's critique of statutory misclassification. By revealing that institutional dominance erodes decentralization's legitimacy and introduces systemic fragility, this work confirms the author's authority to articulate a constitutional doctrine that anchors decentralized systems to traceable accountability and representational consent.

6) The Federal Trust Layer™: A Smart-Law Infrastructure for U.S. Financial Governance, Statutory Compliance, and Algorithmic Public Trust (2025)

Scholarly Summary

This doctrine establishes the first operational model in U.S. legal history that implements statutory mandates as executable smart-law protocols, transforming federal compliance from interpretive discretion into deterministic legal execution. Unlike conceptual digital-governance frameworks, The Federal Trust Layer™ operationalizes existing statutes—ranging from the Securities Act of 1933 to the Internal Revenue Code (§§704, 731, 1001) to FinCEN’s Customer Due Diligence Rule—as immutable, agency-aligned logic layers embedded within smart contract architecture. The system achieves cross-agency interoperability without new legislation, enabling simultaneous SEC accreditation enforcement, FinCEN-compliant identity verification, OFAC jurisdictional whitelisting, IRS K-1 tax generation, and Fourth Amendment-aligned data gating through warrant-bound cryptographic access controls. Its implementation is validated through CLEARfund™, the first SEC- and IRS-reviewed, fully compliant smart-law platform demonstrating that statutory law can be executed as verifiable code without expanding surveillance or altering constitutional protections. The Doctrine proves that algorithmic enforcement, when grounded in statutory fidelity, can generate enforceable Treasury revenue exceeding \$1 trillion annually—solely by rendering existing law executable, auditable, and immune to discretionary drift. Through its grounding in *Carpenter*, *Mathews v. Eldridge*, and *Chevron*, the Doctrine demonstrates that privacy, due process, and statutory precision can be harmonized in a unified, sovereign digital infrastructure.

Relevance to *The Doctrine of Anchored Decentralization*

This work constitutes the clearest evidence of the author’s competence to articulate a national doctrine for decentralized systems anchored to constitutional authority. By demonstrating the ability to translate statutory mandates into verifiable, privacy-preserving, jurisdictionally aligned smart-law architecture, the Federal Trust Layer™ provides the technical and jurisprudential blueprint for how decentralized systems must interact with U.S. law. It shows that accountability, consent, and due process can be enforced cryptographically without compromising liberty—precisely the balance DAC requires when arguing that unanchored decentralization constitutes constitutional evasion. Further, the Doctrine’s execution of SEC, IRS, FinCEN, and OFAC requirements within code proves the author’s command of cross-agency statutory synthesis, a core prerequisite for analyzing how decentralized governance systems must align with Article I’s Chain of Consent. The Federal Trust Layer™ substantiates the central thesis of DAC: that decentralization is lawful only when verifiable, accountable, and constitutionally tethered; and that the path forward is not deregulation or surveillance, but anchored decentralization—where code becomes the executor of law, not its escape.

7) The Harvest Labs Doctrine™: Replacing Speculative Crypto with Constitutional Yield Architecture for National Solvency and Infrastructure Restoration (2025)

Scholarly Summary

This doctrine establishes a sovereign-aligned, regulator-readable financial architecture that replaces speculative cryptocurrency systems with a constitutional yield framework grounded in IRS, SEC, GAO, and fiduciary law. At its center is the Federally Regulated Yield Trust (FRYT), a non-tokenized, non-custodial smart contract instrument that derives economic yield from legally verifiable infrastructure throughput rather than market speculation. Rooted in IRS Subchapter K, SEC Rule 506(c), DOJ fiduciary enforcement, Regulation S, OFAC compliance, and GAO Yellow Book audit chains, FRYTs operationalize yield within existing statutory frameworks without creating volatile tradable assets. The Doctrine further constructs the Federally Regulated Autonomous Finance Infrastructure (FRAFI), an interagency-compliant architecture capable of extending Social Security solvency by 20–45 years through deterministic, corridor-tagged yield flows generated by 1% interchange and 0.25% infrastructure throughput routing. The Lincoln Coin™, a non-tradable, regulator-visible accounting unit, replaces speculative cryptocurrencies with a transparent, sovereignty-compatible ledger system immune to market sentiment and free from custodial risk. Integrated with HELIX, ARX-NAVIS, NATRA, and D.E.F.I.A.N.C.E., the Doctrine models a post-crypto national infrastructure economy that rejects artificial scarcity, pseudonymity, and volatility in favor of covenantal economics, constitutional observability, and long-term public solvency.

Relevance to *The Doctrine of Anchored Decentralization*

This foundational work establishes the author's highest level of competence in designing digital financial systems that remain fully compliant with constitutional, statutory, and fiduciary obligations—precisely the jurisprudential foundation required for DAC. By demonstrating an ability to architect regulator-visible, non-speculative, jurisdiction-tagged smart contract systems, the Doctrine proves the author's mastery of accountability frameworks that prevent constitutional evasion by decentralized or pseudonymous financial actors. The structural features of FRYT and FRAFI directly support DAC's central claim that decentralization must be tethered to traceability, consent, and jurisdictional anchoring. Moreover, the Doctrine's explicit rejection of pseudonymous custody, artificial scarcity, and sentiment-driven valuation provides empirical and theoretical justification for DAC's critique of cryptocurrency classification under commodity law. This work establishes not only the legal understanding but also the engineering capacity to build decentralized infrastructures that honor Article I's fiscal authority, the Due Process Clauses, the non-delegation doctrine, and the Chain of Consent. As such, The Harvest Labs Doctrine™ serves as a central pillar for the author's standing to articulate a constitutional architecture for decentralized systems in the United States.

8) The Immutable Proof Doctrine: A National Blockchain Evidentiary Framework for Federal Enforcement, Constitutional Prosecution, and Interagency Forensic Sovereignty (2025)

Scholarly Summary

This 169-page thesis establishes the first constitutionally compliant blockchain evidentiary architecture in United States history, resolving longstanding conflict between digital recordkeeping, the Fourth and Sixth Amendments, and the Federal Rules of Evidence. Built on explicit statutory conformity with FRE 902(13), 902(14), 803(6), and 1001, as well as the Federal Rules of Criminal Procedure, the Doctrine constructs a deterministic evidentiary chain that eliminates interpretive drift, witness-memory decay, and custodial ambiguity. Central to the system is a multi-agency, quorum-signed DAO framework enabling synchronized forensic verification across DOJ, JAG, ATF, IRS, FinCEN, and Treasury. Each evidentiary object—biometrically triggered, hash-sealed, and cryptographically timestamped—satisfies Daubert reliability, Melendez-Diaz confrontation standards, and Carpenter-Calabresi privacy constraints, thus creating the first digital chain-of-custody system capable of surviving SCOTUS scrutiny under existing doctrine rather than hypothetical reform.

The work pioneers the Zero-Knowledge Discovery Protocol, permitting constitutional criminal discovery without disclosing sensitive or sealed investigative data; introduces NFT-tokenized forensic assets capable of tracking origin, authorship, and evidentiary alteration with zero-latency synchronization; and formalizes the Fork Reconciliation Protocol, enabling judicial continuity and admissibility in the event of ledger bifurcation. By modeling a retrofitting pathway for all 393 million firearms in the United States, the Doctrine demonstrates how NFT-enabled chain-of-custody systems can generate multi-billion-dollar yield for Treasury, states, and authorized operators without new taxation or inflationary financing. The architecture thus replaces discretionary custodial processes with verifiable constitutional procedure, creating the first national evidentiary ledger capable of supporting unified forensic sovereignty across civil, criminal, military, and financial jurisdictions.

Relevance to *The Doctrine of Anchored Decentralization*

This work provides doctrinal, constitutional, and operational authority directly relevant to DAC's central question: *how decentralization can be made accountable without centralizing control*. By demonstrating that blockchain infrastructure can satisfy the Fourth, Fifth, and Sixth Amendments—and, critically, the Federal Rules of Evidence and Criminal Procedure—the Doctrine proves that decentralization is not inherently incompatible with constitutional governance. Instead, it shows that decentralization can *enhance* due process when anchored to verifiable identity, chain-of-custody integrity, and cryptographically bounded judicial access.

The Immutable Proof Doctrine also establishes the author's competence in resolving one of the most difficult legal problems in the decentralized ecosystem: *linking pseudonymous digital actions to accountable legal personhood without violating privacy or overextending state power*. Through mechanisms such as biometric-gated ingress, multisignature judicial access, and ZK-

enabled discovery, the thesis demonstrates the precise type of architecture DAC demands—systems that preserve individual freedom while maintaining constitutional prosecutorial capacity.

In addition, the Doctrine's DAO-based interagency models provide empirical grounding for DAC's broader argument that decentralized systems must maintain a chain of attribution and a chain of consent to remain within constitutional boundaries. The evidentiary models, fork-reconciliation logic, and enforcement architecture supply the jurisprudential and technical foundation for DAC's claim that decentralization requires *anchoring*, not abandonment, of legal identity and constitutional procedure.

This work thus becomes a central pillar of the author's standing. It proves, in both technical detail and constitutional fidelity, that the author possesses the capacity to design decentralized infrastructures that maximize liberty, protect due process, and maintain the supremacy of the Constitution in a stateless digital environment.

9) The Sovereign Ledger Doctrine™: A Legal and Economic Architecture for Federally Compliant Blockchain Banking (2025)

Scholarly Summary

This 1,036-page dissertation constructs the first distributed-ledger financial architecture capable of achieving *full statutory compliance across every major federal regulatory regime* without requiring legislative amendment or novel regulatory exemptions. Integrating 12 C.F.R. Part 9 fiduciary standards, ERISA prudence doctrines, OCC chartering mandates, Dodd-Frank systemic-risk stress frameworks, FinCEN BSA/AML requirements, OFAC sanctions controls, SEC investor-classification rules, CFPB consumer-protection frameworks, and IRS tax-exemption and attribution statutes, the Doctrine operationalizes U.S. financial law directly into executable protocol.

At the architectural core are the `FiduciaryRuleEngine.sol` and `EnforcementLog.sol` modules—smart-contract systems that encode the entire fiduciary canon of loyalty, prudence, impartiality, diversification, and statutory compliance into deterministic execution. These modules are embedded within a multi-layered telemetry system feeding real-time liquidity, solvency, capital-adequacy, and counterparty-risk metrics to FSOc systemic-risk dashboards. The result is a regulatory posture where compliance is not interpreted but *proven*—automatically, continuously, and cryptographically.

The Doctrine further integrates Basel III global standards for operational resilience, liquidity coverage, net stable funding ratios, cross-jurisdictional coordination, and systemic countercyclical buffers, demonstrating that blockchain-based systems can satisfy both domestic and international standards for financial stability. Smart-contract gateways interface with OCC examiner protocols, SEC enforcement pathways, CFPB consumer-complaint procedures, and IRS information-reporting rules, creating the first blockchain architecture that mirrors, rather than circumvents, the legal and supervisory fabric of U.S. governance.

At its most expansive level, the Sovereign Ledger Doctrine transforms blockchain from a speculative technological sphere into a *sovereign-compatible, examiner-ready fiduciary infrastructure*. It redefines decentralized finance as not inherently oppositional to regulation but as a potential vehicle for perfect compliance—an evolution from discretionary enforcement to rule-bound execution. Through a synthesis of Harvard Law fiduciary analysis, Harvard Economics macroprudential modeling, and MIT systems-engineering rigor, the dissertation establishes the doctrinal and operational foundation for the next generation of lawful, Constitution-aligned blockchain financial systems.

Relevance to *The Doctrine of Anchored Decentralization*

This dissertation stands as one of the strongest possible foundations for the legal, economic, and constitutional arguments advanced in DAC. It demonstrates, in a uniquely comprehensive manner, that decentralized architectures can be fully consistent with U.S. law—but only when they are *anchored* to statutory obligations, fiduciary constraints, supervisory oversight, and enforceable accountability.

DAC's core argument—that decentralization becomes lawful only when tied to jurisdiction, consent, and verifiable personhood—is directly validated by the Sovereign Ledger Doctrine's operational reality.

Specifically:

- **Anchored Decentralization vs. Stateless Finance:**

The Sovereign Ledger Doctrine proves that Mature Distributed Ledger Systems achieve constitutional legitimacy not by evading regulation but by translating regulation into executable protocol. This perfectly parallels DAC's assertion that decentralization must be chained to legal identity, jurisdictional reach, and constitutionally grounded obligations.

- **Chain of Consent:**

SLD operationalizes the very principle DAC introduces: that financial systems must remain tethered to consents traceable to the sovereign public. Through investor-eligibility proofs, jurisdiction-tagged compliance, and transparent fiduciary execution, SLD shows how decentralized systems can satisfy the Constitution's demand for representation-linked financial authority.

- **Accountability without Centralization:**

SLD's modular fiduciary engines show that decentralized infrastructures can maintain full accountability without introducing managerial centralization—precisely the architecture DAC advocates. Code becomes the executor of law, not an escape from it.

- **Statutory Fidelity as Decentralization's Legitimacy Test:**

SLD's integration of dozens of regulatory regimes proves DAC's thesis that decentralization is lawful only when structured around statutory anchors. Without these anchors, financial networks drift into constitutional voids; with them, they become instruments of lawful fiduciary order.

- **SCOTUS Posture:**

In the post-Loper Bright landscape, where judicial deference is curtailed, SLD's precision in statutory alignment provides a roadmap for DAC's contention that decentralized networks must be interpretable without Chevron. A decentralized system must “speak in the language of the law,” and SLD is the clearest demonstration of such fluency.

In sum, *The Sovereign Ledger Doctrine™* does not merely support DAC—it operationally embodies its thesis.

It shows that decentralization can be compatible with sovereignty only when *anchored* to the Constitution, federal oversight, and legally coherent fiduciary pathways.

DAC's doctrinal foundations draw unique credibility and authority from this work.

10) Covenantal Economics™ Doctrine: A New Economic Model for Infrastructure Yield, Constitutional Stewardship, and Global Fiscal Legitimacy (2025)

Scholarly Summary

This 435-page doctoral thesis introduces *Covenantal Economics™*, the first fully sovereign-compatible, regulator-readable, and constitutionally anchored macroeconomic framework capable of replacing both fiat-based and speculative digital economies. It begins by diagnosing the structural failures driving modern global instability: fiscal opacity, sentiment-driven crypto speculation, off-balance-sheet debt masking, and the erosion of democratic legitimacy through untraceable expenditure and private monetization of public risk.

The Doctrine's architecture replaces abstraction with *infrastructure-anchored yield* delivered through the Federal Trust Layer™ and its FRAFI-class corridors—non-custodial, non-tokenized, regulator-enforceable smart contracts that route lawful yield from national infrastructure throughput to sovereign accounts. It formalizes two new economic constructs:

- **The Decker Sovereign Trust Index (STI):** a constitutional solvency metric aligning national fiscal health with statutory integrity, GAO audit coherence, and public-trust data.
- **The Covenantal Yield Equation (CYE):** the first lawful yield function linking federal disbursement to measurable national output through deterministic, regulator-auditable pathways.

Through over 100,000 Monte Carlo simulations spanning five historical collapse events—from 1929 to 2008—the Doctrine demonstrates that infrastructure-yield models reduce collapse durations by 47.2%, suppress peak unemployment by 11.3 points, preserve \$9.4 trillion in household wealth, and reduce audit leakage to under 3%. These effects are not produced by stimulus or currency expansion, but by replacing fiscal discretion with constitutional discipline encoded as smart-law execution.

Covenantal Economics™ integrates seamlessly with NATRA™, HELIX™, ARX-NAVIS™, CLEARfund™, and DEFIANCE™, forming an interlocking ecosystem for national solvency, medical integrity, traffic governance, judicial enforcement, and economic renewal. The Doctrine is fully compliant with SEC Rule 506(c), IRS Subchapter K, GAO Yellow Book, OFAC sanctions law, and OMB Circular A-11, providing the first lawful alternative to speculative digital finance that is simultaneously profitable, stabilizing, and constitutionally faithful.

Ultimately, the Doctrine presents a fiscally, legally, and morally coherent alternative to modern monetary regimes—a system where solvency is produced through stewardship, value through infrastructure, and trust through verifiable obedience to law.

Relevance to *The Doctrine of Anchored Decentralization*

Covenantal Economics™ is a structural pillar of DAC because it resolves the deepest constitutional challenge of decentralized systems: *How can economic activity remain decentralized while accountability remains centralized to the sovereign?*

Where DAC defines the legal and constitutional logic of Anchored Decentralization, *Covenantal Economics™* defines its economic logic.

It supports DAC in four decisive ways:

1. It Converts Decentralization from Anti-Sovereign to Ultra-Sovereign

DAC argues that decentralization becomes constitutional only when tied to jurisdictional anchors.

Covenantal Economics™ operationalizes this by showing how decentralized infrastructure corridors can *strengthen* sovereign solvency through FRAFI yield extraction without requiring custody, surveillance, or managerial centralization.

This proves DAC's thesis: decentralization is lawful only when anchored.

2. It Replaces Speculative Digital Economies with Lawful Yield

DAC critiques the conceptual confusion between commodities, securities, and stateless digital assets.

Covenantal Economics™ provides the alternative architecture—non-speculative, regulator-readable, constitutionally governed yield derived from measurable national output.

This allows DAC to argue not only what decentralized finance *is not*, but what it *must become*.

3. It Establishes the Chain of Consent as a Fiscal Principle

DAC's most philosophically significant contribution is the articulation of the Chain of Consent—the requirement that all economic systems must remain traceably accountable to the sovereign public.

Covenantal Economics™ validates this by encoding:

- OFAC jurisdictional proofs
- GAO audit pathways
- IRS Subchapter K attribution
- SEC investor-eligibility rules

into every layer of yield generation.

It demonstrates that decentralized systems gain legitimacy only when their flows are traceable to consent—precisely DAC’s constitutional argument.

4. It Provides the Economic Backbone for DAC’s Legal Theory

DAC argues that decentralization must not evade the Constitution, the Commerce Clause nexus, or due-process accountability.

Covenantal Economics™ provides the economic structures that make such accountability operational:

- measurable output
- verifiable routing
- regulator visibility
- zero-discretion execution

Thus, the two doctrines form a constitutional pair:

- **DAC** = the *legal and fiduciary architecture*.
- **Covenantal Economics™** = the *macroeconomic and fiscal architecture*.

Together, they demonstrate that decentralized finance can be *lawful, sovereign-compatible, non-speculative, and economically stabilizing*—a position no existing academic or governmental framework has yet articulated.

Category II — Foundational Works Establishing Competence in Critical Blockchain Infrastructure

Category II establishes the author’s foundational corpus of work demonstrating a uniquely comprehensive mastery across the three pillars required for sovereign-grade decentralized systems: *technical engineering*, *statutory compliance*, and *constitutional fidelity*. The works collected in this section—spanning finance, healthcare, mobility, forensic science, electoral integrity, and public-sector automation—constitute the first academically verifiable proofset that blockchain architectures can operate not merely as theoretical models or market experiments, but as *fully compliant public infrastructures deployable under existing U.S. law*.

These works collectively demonstrate four attributes essential to the Doctrine of Anchored Decentralization (DAC):

1. Capability Across Full-Stack Systems Engineering

Each work introduces original, deployable smart-contract architectures validated through simulation, formal verification, or cross-chain implementation. The designs include:

- sovereign traffic and mobility systems (NATRA, ARX-NAVIS)
- cryptographic forensic frameworks (DEFIANCE)
- healthcare finance and interoperability networks (HELIX)
- interchange routing systems (NEXUS3)
- sovereign-grade financial systems (FRAFI / Federal Trust Layer Doctrine)
- fiduciary trust automation (FRYT / Harvest Labs Doctrine)
- compliance-anchored SaaS architectures (CLEARfund)
- constitutional electoral infrastructure (SingularVote)

These systems prove competence not in isolated technologies but in *national-scale interoperability architectures*.

2. Mastery of U.S. Regulatory and Constitutional Constraints

The works in this category are distinguished by a rare characteristic in contemporary blockchain research:

each system is designed to be deployable today without requiring new federal legislation.

They operationalize:

- SEC Regulation D (Rules 506(b) and 506(c))
- FinCEN BSA/AML frameworks
- OFAC sanctions controls
- IRS Subchapter K pass-through logic
- Federal Rules of Evidence 902(13) & (14)
- NIST SP 800-63A identity rules
- E-SIGN Act
- ADA, CVAA, Section 508 accessibility mandates
- Federal Records Act and Carpenter/Riley privacy doctrine

Category II therefore demonstrates not speculative ambition but actual *legal executability*.

3. Demonstrated Ability to Fuse Multi-Disciplinary Domains

Category II works reflect a fusion of disciplines rarely combined in single publications:

- Harvard-grade fiduciary and constitutional analysis
- MIT-level engineering rigor
- Brookings and RAND-aligned policy simulations
- Treasury, IRS, DOJ, and SEC operational logic
- International regulatory interoperability

Taken together, these works show that the author is not merely engineering decentralized architectures—they are *engineering public institutions in computational form*.

4. Proof of Architectural Maturity Required for DAC

The central thesis of the Doctrine of Anchored Decentralization is that decentralization is legitimate only when tethered to constitutional authority, jurisdictional visibility, and enforceable fiduciary duty.

Category II provides the technical and doctrinal foundation for this claim.

Each work:

- rejects pseudonymity as a design principle
- embeds jurisdictional compliance into smart-contract execution
- aligns decentralization with the chain of consent
- proves that cryptographic automation can coexist with—and strengthen—sovereignty

These works constitute the empirical demonstration that decentralized systems need not drift into evasion, speculation, or regulatory orphaning. Instead, when properly engineered, they can serve as *constitutional instruments of national governance*.

Position Within DAC

Category II is therefore not a background literature review but an evidentiary scaffold. It supplies the factual, technical, and doctrinal basis upon which DAC's normative argument stands:

that decentralization must be anchored—not abstract; sovereign—not anonymous; constitutional—not chaotic.

The works recorded here demonstrate that the author has not only theorized this principle but has already executed it across eleven distinct critical infrastructures.

1) The NEXUS Token: A Regulation D–Compliant Interchange Fee Mechanism for Infrastructure-Backed Public Finance Systems (2025)

Scholarly Summary

This thesis establishes NEXUS3 as the first blockchain-based interchange fee protocol engineered to operate entirely within existing U.S. statutory and constitutional boundaries. Structured under SEC Regulation D, Rule 506(b), and validated through live beta deployments, NEXUS3 operationalizes a lawful, non-speculative smart-contract mechanism that routes a 1% interchange fee from qualifying transactions directly into jurisdiction-tagged public treasuries—without issuing public debt, levying new taxes, or generating speculative yield. Its architecture is expressly compliant with the Howey, Reves, and Forman tests and embeds trust-law obligations into protocol logic via lifecycle constraints (mint → fee routing → service burn), quorum-based DAO governance, and a Price-Increase Tax Ratio (PTR) that replaces inflationary dynamics with programmatic scarcity. Through the Decker Node-to-Jurisdiction Smart Disbursement Model (DNJ-SDM), NEXUS3 delivers deterministic Treasury revenue flows governed by a DAO Constitution incorporating override logic, jurisdictional whitelisting, and zero-knowledge audit trails. Legally filed on the SEC’s EDGAR system (CIK: 0002056189), the protocol fuses financial law, fiduciary doctrine, and distributed engineering into the first regulator-recognized model of infrastructure-backed autonomous public finance.

Relevance to The Doctrine of Anchored Decentralization

NEXUS3 demonstrates the author’s ability to design decentralized systems that remain fully accountable within U.S. constitutional and statutory frameworks—a foundational requirement for DAC’s thesis that decentralization is legitimate only when anchored to jurisdictional responsibility. By encoding securities classification, fiduciary duties, and Treasury-aligned revenue routing directly into executable smart contract architecture, NEXUS3 proves the feasibility of decentralization without anonymity-based evasion, speculative abstraction, or regulatory orphaning. Its lifecycle constraints, DAO quorum requirements, and jurisdiction-tagged disbursement pathways provide the empirical grounding for DAC’s argument that decentralized systems must remain tethered to an identifiable chain of consent and to enforceable obligations recognizable under federal law. As the first EDGAR-filed, regulator-readable decentralized finance mechanism, NEXUS3 thus serves as a doctrinal and engineering blueprint for the central proposition of DAC: **that decentralization must not float above the Constitution but must be anchored to it.**

2) Federally Regulated Autonomous Finance Infrastructure (FRAFI)

Scholarly Summary

FRAFI represents the first constitutionally compliant, regulator-aligned smart-contract infrastructure in U.S. financial history—an architecture where autonomous digital execution is inseparably bound to statutory oversight. Unlike both TradFi’s human-managed fiduciary structures and DeFi’s pseudonymous, non-jurisdictional protocols, FRAFI is engineered as a third, legally distinct class of financial architecture: *federally aligned smart contracts with embedded fiduciary logic, real-time agency observability, and constitutionally bounded execution pathways*. It is the only digital finance system built to satisfy Commerce Clause jurisdiction, Supremacy Clause preemption, federal fiduciary doctrine, and multi-agency enforcement simultaneously.

Three Market Classes

Market Class	Governance	Compliance	Risk Profile	Fiduciary Enforcement
TradFi	Centralized institutions	Manual, hierarchical	Stable but opaque	Human-managed fiduciary
DeFi	Decentralized protocols	Largely non-compliant	Highly volatile, pseudonymous	No enforceable fiduciary logic
FRAFI	Federally aligned smart contracts	Statutorily compliant	Constitutionally bounded	Embedded fiduciary structure

Jurisdictional Anchor Framework

Architecture Class	Primary Anchor	Regulatory Visibility	Enforcement Pathway	Statutory Integration	Constitutional Basis
TradFi	Chartered institutions	High	Direct enforcement	SEC, CFTC, OCC, IRS	Commerce + Supremacy
DeFi	None	Near zero	Edge-case enforcement only	Fails AML/ KYC	No Commerce Clause nexus
FRAFI	Jurisdiction-tagged smart contracts	Continuous	Programmatic enforcement	Full federal integration	Commerce + Supremacy + Due Process

Comparative Constitutional Compliance: TradFi vs. DeFi vs. FRAFI

Constitutional Test	TradFi	DeFi	FRAFI
Commerce Clause Nexus	Strong	Weak/None	Strong
Supremacy Clause Preemption	Strong	None	Strong
Due Process Identifiability	Strong	Minimal	Strong
Fiduciary / Non-Delegation Compatibility	High	None	High
Standing / Article III	Clear	Collapsed	Clear
Taxation Accountability (Art. I, §9)	High	None	High
Chain of Consent	Valid	Broken	Restored

Doctrinal Expansion

Doctrinally grounded in the Constitution, FRAFI provides federal supremacy over all yield-generating behavior occurring within U.S. territory or sovereign digital corridors. Its compliance layer executes requirements that DeFi cannot satisfy—FinCEN onboarding and AML surveillance, IRS yield classification and K-1/1099 attribution, OFAC sanctions filtering, and real-time read-node observability for the Federal Reserve, GAO, Treasury, DOJ, and OIG systems. Its fiduciary architecture, expressed through FRYTs and trust-coded execution, satisfies the Restatement (Third) of Trusts and DOJ fiduciary doctrine without human intermediaries. FRAFI is engineered for SSA/SSI yield augmentation, NEXUS3 corridor treasuries, and debt-neutral Treasury disbursement—making it the *only* digital system suitable for sovereign financial operations.

This framework is therefore doctrinally declared the *second lawful classification of financial architecture in the United States*—distinct from TradFi and fundamentally incompatible with DeFi. FRAFI's purpose is precise: *to automate lawful yield, stabilize public trust funds, and eliminate extralegal volatility* through constitutionally anchored smart-contract execution.

Relevance to The Doctrine of Anchored Decentralization

FRAFI stands as a primary pillar of DAC's thesis: decentralization is legitimate only when anchored to constitutional authority, jurisdictional visibility, and the Chain of Consent. FRAFI proves that *autonomous execution does not require constitutional evasion*—it can be fully compliant, auditable, and fiduciary-bound while maintaining distributed architecture.

More importantly, FRAFI solves the three failures of unanchored decentralization identified by DAC:

- 1. No fiduciary enforcement**
- 2. No jurisdictional accountability**
- 3. No sovereign integration pathway**

FRAFI resolves all three simultaneously.

It is not merely relevant to DAC—it is the *operational embodiment of DAC's central claim*:

Decentralization becomes constitutional only when it is tethered to sovereignty, identifiable responsibility, and enforceable fiduciary duty.

In this sense, FRAFI is the architectural exemplar of Anchored Decentralization.

3) Federally Regulated Yield Trusts (FRYTs) — Harvest Labs LLC as the First Lawful Yield-Farm Architecture (2025)

Scholarly Summary

This section establishes Harvest Labs LLC as the first operational Federally Regulated Yield Trust (FRYT)—a smart-contract-executed, regulator-readable yield architecture engineered to operate fully within existing U.S. statutory, fiduciary, constitutional, and administrative law. Structured under SEC Regulation D, Rule 506(c) and validated through live compliance deployment, FRYTs introduce the first lawful alternative to crypto “yield farming”: a constitutionally anchored, non-custodial yield model in which returns are generated exclusively through infrastructure-based throughput, not speculation, token emissions, or market volatility.

Unlike DeFi yield systems that rely on pseudonymous pooling, circular reward emissions, or custodial rehypothecation, FRYTs embed fiduciary duty directly into autonomous execution. Yield is routed deterministically via smart contract in accordance with Subchapter K pass-through logic, generating automated 1099/K-1 attribution at the precise moment of legally recognized yield events. Compliance pathways integrate real-time FinCEN KYC/AML, OFAC sanctions screening, and DOJ-aligned fiduciary logic, while the trust structure remains non-custodial and purpose-bound, preventing investor pooling, securities exposure, or speculative intent.

FRYTs are expressly engineered to remain outside securities classification under the Howey, Reves, and Forman Supreme Court tests: there is no common enterprise, no reliance on the managerial efforts of others, and no expectation of profit derived from market-driven appreciation. Yield is mechanically linked to infrastructure throughput—not to discretionary management, speculative valuation, or price-movement dynamics. As documented in federal filings, Harvest Labs LLC (CIK: 0002052370) constitutes the first live entity to implement this model, operating as the inaugural Doctrine Entity of FRAFI (Federally Regulated Autonomous Finance Infrastructure).

As such, FRYTs represent the first regulator-aligned, constitutionally compliant replacement for speculative yield-generation systems, proving that autonomous yield can be generated, routed, and audited without evasion, opacity, or extrajurisdictional design.

Relevance to The Doctrine of Anchored Decentralization

FRYTs demonstrate the author’s ability to design decentralized yield systems that remain fully anchored to U.S. legal authority, fiduciary standards, and constitutional jurisdiction—a central requirement of DAC’s proposition that decentralization becomes legitimate only when it is tethered to the Chain of Consent. By encoding fiduciary obligations, statutory compliance, Subchapter K tax pathways, and real-time agency observability directly into smart-contract execution, FRYTs provide empirical validation for DAC’s thesis that lawful decentralization requires identifiable accountability, jurisdictional traceability, and enforceable constitutional boundaries.

FRYTs additionally supply doctrinal proof for DAC's critique of unanchored yield farming: they reveal that yield infrastructures can be autonomous without being anonymous, automated without being extralegal, and decentralized without becoming stateless. As the first operational precedent of the FRAFI architecture class—and the first yield-farm model to be rendered constitutionally compliant—FRYTs function as both a technical and jurisprudential blueprint for DAC's core claim:

decentralization must not drift above the Constitution; it must be anchored to it.

4) The Lincoln Coin™ — A Sovereign, Non-Speculative Digital Provisioning Instrument (2025)

Scholarly Summary

The Lincoln Coin™ constitutes the first sovereign-aligned digital instrument in U.S. history designed explicitly outside the economic, legal, and behavioral dynamics of speculative finance. Unlike all prior digital assets—including cryptocurrencies, stablecoins, and tokenized commodities—the Lincoln Coin™ is not purchased, traded, mined, collateralized, or valued through market activity. It is a programmable provision-instrument, issued exclusively through FRAFI-class smart contracts when corridor-verified infrastructure performance meets statutory thresholds. Its lifecycle contains no speculative float, no market price, and no liquidity pathways, thereby severing every prong that activates securities, commodities, or currency classification under Howey, Reves, Forman, the Securities Acts of 1933/1934, or CFTC anti-manipulation doctrine.

The instrument is routed solely through Federally Regulated Yield Trusts (FRYTs) and the CLEARfund™ interface, ensuring that issuance is:

- IRS-visible and jurisdiction-tagged,
- FinCEN/OFAC compliant,
- Treasury-compatible,
- GAO/FSOC readable, and
- constitutionally bounded under Article I, Section 8 (monetary power) and the Fourteenth Amendment (public-debt fidelity).

The Lincoln Coin™ is thus neither currency nor security. It is *sovereign monetary architecture* rendered in code—an instrument that can only be disbursed through lawful public-benefit triggers, never accumulated or traded for private gain. Its design inaugurates a deflationary, yield-calibrated issuance model:

Infrastructure → Verified Yield → Provisioning → Infrastructure,

creating a closed sovereign loop that strengthens national solvency through performance rather than price.

As a doctrinal successor to the Greenback (but without inflationary risk), the Lincoln Coin™ restores monetary issuance to constitutional discipline, public purpose, and fiduciary clarity. It addresses the systemic dangers identified in *The U.S. Dollar in Crisis*—namely that fiat expansion and sentiment-bound cryptocurrencies produce volatility, external dependency, and sovereignty erosion. By eliminating market exposure and aligning issuance exclusively with

sovereign infrastructure output, the Lincoln Coin™ redefines digital value as a public trust function rather than a speculative asset class.

Relevance to The Doctrine of Anchored Decentralization (DAC)

The Lincoln Coin™ is the ultimate demonstration of DAC's thesis: that decentralization is legitimate only when it is anchored to constitutional authority, fiduciary intelligibility, and the Chain of Consent. Where DeFi instruments evade jurisdiction, create untraceable monetary transmission, and undermine representative governance, the Lincoln Coin™ embodies the opposite: identity-anchored issuance, regulator-readability, and disbursement restricted to sovereign, corridor-verified public purposes.

By existing entirely outside speculation and market liquidity, the Lincoln Coin™ proves the architectural viability of *anchored decentralization*—autonomous execution bound to constitutional constraints. It satisfies every principle DAC articulates:

- *Fiduciary anchoring* (FRYT + trust-law conformity)
- *Jurisdictional anchoring* (IRS, SEC, CFTC, FinCEN, Treasury oversight)
- *Constitutional anchoring* (Article I monetary power + 14th Amendment debt fidelity)
- *Chain-of-Consent anchoring* (public issuance only through statutorily lawful triggers)

Where sentiment-based cryptocurrencies float above constitutional order, the Lincoln Coin™ returns digital finance to the Republic's center of gravity: *sovereign legitimacy, public purpose, and enforceable transparency*.

In the architecture of DAC, it stands as the exemplar that decentralization need not be anarchic to be decentralized—
and that monetary instruments need not be speculative to be digital.

5) The Sovereign Ledger Doctrine™ — A Federally Compliant, Basel-Aligned Blockchain Banking Architecture (2025)

Scholarly Summary

The Sovereign Ledger Doctrine™ establishes the first blockchain architecture in U.S. history engineered to comply with every major federal fiduciary, banking, securities, consumer-protection, operational-resilience, and tax-compliance regime—while remaining fully interoperable with Basel III, Financial Stability Board (FSB) liquidity standards, and global prudential frameworks. Through an interdisciplinary synthesis of Harvard Law fiduciary doctrine, Harvard Economics macroprudential modeling, and MIT-style systems engineering, this work demonstrates that decentralized ledgers can operate not as speculative instruments but as fully examinable, regulator-trusted banking infrastructure.

At the architectural core, the Doctrine embeds enforceable fiduciary duties through smart-contract modules such as `FiduciaryRuleEngine.sol`, `EnforcementLog.sol`, and legally interpretable accounting primitives aligned to 12 C.F.R. Part 9, ERISA prudence mandates, OCC fiduciary standards, and Restatement (Third) of Trusts. The integration of regulatory telemetry converts compliance from a post-hoc audit function to a real-time supervisory channel, routing solvency, liquidity, and capital-adequacy metrics directly into FSOC dashboards, while providing CFPB and SEC examination interfaces for consumer-protection and investor-classification audits.

The architecture also hardcodes OCC chartering requirements, Dodd-Frank stress-test logic (CCAR/SCB), FinCEN BSA/AML surveillance, and OFAC sanctions enforcement. In doing so, the Sovereign Ledger Doctrine™ delivers cross-agency observability and multi-layer compliance at a depth unmatched by existing Mature Distributed Ledger Systems, which lack jurisdictional accountability, fiduciary enforceability, and supervisory transparency.

Internationally, the Doctrine situates its corridors within Basel III operational-resilience and liquidity-coverage frameworks, demonstrating that sovereign-aligned blockchain infrastructure can meet global prudential standards—including LCR, NSFR, and cross-border supervisory expectations—without sacrificing decentralization’s computational advantages. The system thereby establishes the first model of blockchain banking that satisfies both U.S. federal statutory regimes and international financial stability mandates, proving that distributed architectures can escape speculative classification and function as deterministic, legally enforceable financial infrastructure.

The Sovereign Ledger Doctrine™ thus transforms blockchain from an experimental financial technology into an examiner-ready fiduciary system, suitable for regulated banking, supervised custody, sovereign trust management, cross-agency compliance automation, and systemic-risk mitigation. It forms a doctrinal foundation for the next generation of decentralized yet constitutionally accountable financial networks—bridging the gap between autonomous execution and the rule of law.

Relevance to The Doctrine of Anchored Decentralization

The Sovereign Ledger Doctrine™ is one of the most direct expressions of DAC's central thesis: that decentralization attains legitimacy only when it is anchored to constitutional authority, statutory intelligibility, and enforceable regulatory visibility. Where conventional DeFi avoids jurisdiction and often operates in defiance of fiduciary duty, the Sovereign Ledger Doctrine™ demonstrates that Mature Distributed Ledger Systems can encode fiduciary obligations, banking regulations, consumer-protection laws, and financial-stability mandates directly into protocol logic—producing decentralized infrastructure that is not law-evasive but law-executable.

It serves as the architectural bridge between autonomy and accountability, proving that decentralization can coexist with, and even enhance, the supervisory functions necessary for systemic stability. Within DAC, this paper stands as the doctrinal evidence that only anchored decentralization—decentralization bound to agency observability, fiduciary duty, and constitutional oversight—can meaningfully integrate into sovereign financial systems.

It therefore forms one of the intellectual pillars supporting DAC's constitutional argument: decentralization is not inherently anarchic; only *unanchored* decentralization is.

6) CLEARfund™ — The First Smart Contract–Governed, IRS-Compliant, SEC-Regulated SaaS Infrastructure for Multi-Chain Fund Operations (2025)

Scholarly Summary

CLEARfund™ introduces the first sovereign-grade, smart contract–executed SaaS infrastructure engineered to operate digital fund administration, yield routing, tax computation, and fiduciary enforcement *entirely within existing United States law*. As the inaugural live implementation of *The Federal Trust Layer™ Doctrine*, CLEARfund™ transforms regulatory compliance from a manual, retrospective process into an automated, legally deterministic execution environment—without requiring new legislation, rulemaking, or agency authority expansion.

Developed by Kingstone Development Group LLC in 2022 and deployable across more than seventeen blockchain ecosystems, CLEARfund™ embeds the mandates of SEC Regulation D (Rule 506(c)), IRS Subchapter K and 1099/K-1 reporting, Sarbanes–Oxley Act §404 internal-control requirements, and federal anti-fraud provisions directly into immutable smart-contract modules. These modules enforce identity anchoring (KYC/AML), jurisdictional filters (FinCEN/OFAC), yield classification (IRS), investor eligibility (SEC), and audit-trail immutability in real time—creating the first digital fund infrastructure capable of *constitutional execution of fiduciary duties at protocol speed*.

CLEARfund™ integrates seamlessly with nineteen federal agencies, satisfying or exceeding operational thresholds for the SEC, IRS, DOJ, FinCEN, CFPB, SBA, USDA, FBI, Treasury, and FSOC. Its multi-chain operability and cross-agency alignment produce a revenue architecture estimated to generate *\$1.029 trillion in enforceable annual federal revenue*—entirely through lawful, programmable economic activity. This revenue is achieved without new taxes, without bypassing congressional appropriations authority, and without altering the U.S. Code, demonstrating a new class of fiscally sovereign infrastructure capable of repaying the entire U.S. national debt within approximately thirty-three years under conservative assumptions.

The architecture also establishes a doctrinal mechanism for public trust restoration: every compliance action, identity check, yield computation, and tax distribution is cryptographically logged and judicially admissible, satisfying Federal Rules of Evidence 902(13), 902(14), and 803(6). In doing so, CLEARfund™ advances a historic transformation—replacing the discretionary, error-prone nature of human-administered compliance with *constitutionally bounded, machine-executed fiduciary law*.

As the first operational expression of *The Federal Trust Layer™*, CLEARfund™ stands as proof that financial sovereignty, statutory compliance, and multi-agency regulatory integrity can be executed through smart contracts with precision, transparency, and constitutional fidelity. It constitutes a working prototype for a national compliance utility—*one capable of scaling to the full economic perimeter of the United States, and of restoring fiscal solvency through lawful automation rather than statutory expansion*.

Relevance to The Doctrine of Anchored Decentralization

CLEARfund™ is the clearest empirical demonstration of DAC's central thesis: decentralized systems achieve legitimacy only when they remain *anchored to identifiable jurisdiction, constitutional oversight, and a verifiable Chain of Consent*. Where DeFi protocols evade identity, taxation, fiduciary duty, and jurisdiction, CLEARfund™ operationalizes the opposite trajectory —autonomous execution bound to federal law at every step.

It proves that decentralization does not require anonymity, opacity, or regulatory orphaning. Rather, smart contracts can:

- execute SEC investor eligibility rules,
- enforce IRS yield attribution,
- perform OFAC/FinCEN identity filtration,
- maintain SOX-compliant internal controls, and
- produce evidentiary audit trails compatible with DOJ and federal courts.

By converting regulatory obligation into executable logic, CLEARfund™ resolves the three foundational failures that DAC identifies in unanchored decentralization: absence of fiduciary enforceability, absence of jurisdictional accountability, and inability to integrate into sovereign financial systems.

CLEARfund™ thus demonstrates DAC's constitutional proposition in practice:
decentralization is legitimate only when it is anchored —legally, jurisdictionally, and fiduciarily.

Through CLEARfund™, decentralization ceases to be a mechanism of evasion and becomes a mechanism of lawful execution.

7) DEFIANCE — Decentralized Evidentiary Forensics for Immutable Auditability, Networked Chain-of-Custody, and Enforcement (2025)

Scholarly Summary

DEFIANCE establishes the first cryptographic, blockchain-anchored forensic architecture capable of producing *court-admissible, Fourth Amendment-compliant, tamper-proof* chains of custody for firearm-related evidence. Unlike traditional forensic systems—fragmented across agencies, reliant on paper custody logs, and vulnerable to cross-jurisdictional breakage—DEFIANCE creates a unified evidentiary substrate built on biometric identity, NFT-bound asset registration, multisignature judicial authorization, and warrant-gated access controls.

Engineered as a UUPS-upgradeable smart contract suite and formally verified (Certora) and auditor-certified (MythX), DEFIANCE integrates directly with Federal Rules of Evidence 902(13) and 902(14), enabling cryptographic logs to stand as self-authenticating digital records. The architecture supports zero-knowledge-compatible forensic validation, distributed custody proofs, adversarial-resistant evidence sealing, and multi-agency coordination across DOJ, ATF, state law enforcement, and military legal systems.

A core contribution is the Decker Clearance-Crime-Cost Equation (DCCCE), a formal econometric model demonstrating that cryptographically enforced custody and multisignature judicial authorizations increase clearance rates, suppress violent crime elasticity, and substantially reduce investigative cost burdens. NFT-registered weapons, biometric-anchored seizure events, and DAO-coordinated evidence routing form a reproducible, legally integrated mechanism that eliminates ambiguity in authorship, access, and evidentiary tampering.

In its doctrinal construction, DEFIANCE represents a new class of forensic infrastructure—digitally sealed, constitutionally compliant, adversarially resilient, and capable of transforming firearms evidence management into a system of immutable public trust.

Relevance to The Doctrine of Anchored Decentralization

DEFIANCE is one of the clearest empirical proofs of DAC’s central thesis: *decentralization attains legitimacy only when it is constitutionally anchored, jurisdictionally supervised, and embedded within enforceable chains of consent.*

Where most decentralized systems evade identity, accountability, and legal traceability, DEFIANCE does the opposite. It binds decentralization to:

- *Fourth Amendment warrant standards*
- *Federal evidentiary admissibility rules*
- *Biometric identity anchoring*
- *Multi-agency DAO governance*

- *Judicially supervised multisig access*

This transforms decentralization from an anonymity shield into a verifiability engine—a constitutional instrument rather than a sovereign bypass.

DEFIANCE directly supports DAC in three structural ways:

- 1. It proves that decentralization can reinforce, not erode, constitutional due process.**
The architecture demonstrates how blockchain immutability can strengthen the Confrontation Clause and evidentiary integrity, countering the common critique that decentralization inherently undermines accountability.
- 2. It operationalizes the Chain of Consent.**
Every forensic action—seizure, sealing, transfer, analysis—requires cryptographically signed approval by legally authorized actors. This is the very embodiment of DAC’s principle that decentralized systems must remain traceable to identifiable consent pathways.
- 3. It models sovereign-aligned decentralization.**
DEFIANCE is a decentralized protocol that cannot be used anonymously, pseudonymously, or evasively. Every function is jurisdiction-bound, every record is court-admissible, and every action is tied to constitutional and statutory authority.

Thus, DEFIANCE provides the forensic analogue of what FRAFI provides to public finance: *a demonstration that decentralization becomes legitimate only when it is law-tethered, identity-anchored, and constitutionally governed.*

In this regard, DEFIANCE is not merely relevant to DAC—it is *one of its strongest evidentiary case studies.*

It shows that decentralization is not inherently anarchic; it becomes anarchic only when it is unanchored.

DEFIANCE therefore stands as a doctrinal and infrastructural exemplar of DAC’s core claim: *that decentralization must be architected for the Republic, not apart from it.*

8) HELIX Protocol — Healthcare Ledger Infrastructure for Interoperability and Exchange (2025)

Scholarly Summary

HELIX Protocol establishes the first end-to-end, blockchain-anchored healthcare finance system designed to structurally replace—not merely reform—the legacy U.S. and global healthcare payment architecture. Built as a full-stack, cryptographically verifiable coordination platform, HELIX integrates smart-contract-governed claims automation, DID-based patient identity, decentralized actuarial modeling, and multi-payer incentive alignment into a sovereign-grade financial system engineered for transparency, auditability, and economic efficiency.

Where legacy healthcare systems rely on intermediaries, opaque billing, fraud-prone claims workflows, and fragmented data silos, HELIX enforces determinism: every claim, authorization, payment, and adjudication is executed as verifiable state-transition logic. Its simulation suite—DBHSS, DIDI, DPBEM, and DBHMI—quantifies the economic and behavioral uplift produced by removing administrative drag, automating actuarial processes, and aligning incentives through cryptographic guarantees. Simulations project \$823–\$854 billion in annual U.S. savings, driven by administrative cost collapse, reduced fraud leakage, labor-productivity gains, and patient out-of-pocket reduction.

HELIX’s governance framework leverages HealthDAOs, jurisdiction-wrapped smart-contract entities capable of administering benefits, disbursing payments, and adjudicating claims under existing regulatory authorities. Deployment pathways are mapped through CMS Innovation Center waiver powers (CMMI), Medicaid 1115 waivers, ONC interoperability mandates, IRS tax treatment for healthcare spending, WHO/OECD compliance standards, and GDPR-aligned data rights.

HELIX is not a theoretical reform model; it is a sovereign coordination infrastructure. It demonstrates how healthcare administration can be transitioned from human-managed discretion to constitutional, programmable execution—transparent by default, audit-ready in real time, and aligned with the dignity and autonomy of each patient.

Relevance to The Doctrine of Anchored Decentralization

HELIX offers an essential doctrinal proof for DAC: *decentralization becomes legitimate only when it is anchored to accountability, jurisdiction, and enforceable fiduciary standards.*

In the healthcare context, decentralization has historically produced fragmentation, regulatory evasion, and data silos—an unanchored decentralization that undermines both patient rights and national solvency. HELIX reverses this paradigm by binding decentralization to:

- **jurisdiction-tethered HealthDAOs**, each legally wrapped under existing CMS, IRS, and HHS authority

- **identity-anchored patient verification via DID systems**, eliminating pseudonymity and preventing fraud
- **statutorily compliant claims execution**, ensuring every payment is tied to legal authority rather than administrative discretion
- **cryptographic auditability**, which replaces ambiguity in claims adjudication with verifiable math
- **interoperability mandates**, preserving public-sector oversight and cross-agency supervision

Thus, HELIX embodies DAC’s central assertion that decentralized systems must preserve the *Chain of Consent*—the constitutionally required visibility of authority, responsibility, and auditability.

HELIX reinforces DAC’s thesis in three critical ways:

1. **It demonstrates that decentralization is not synonymous with deregulation.**
HELIX operationalizes federal and international regulatory frameworks through code, proving that decentralized execution can enhance—not diminish—legal compliance.
2. **It transforms a deeply fragmented national system into a coordinated constitutional architecture.**
By replacing manual adjudication and opaque pricing with deterministic smart contracts, HELIX shows how decentralization can uphold patient rights, fiduciary duties, and statutory constraints simultaneously.
3. **It establishes a sovereign-aligned model for decentralized public services.**
HELIX makes clear that decentralization becomes a tool of national solvency only when it is jurisdiction-anchored, regulator-visible, and immune from discretionary manipulation.

HELIX therefore stands as the healthcare analogue of FRAFI and DEFIANCE—an applied demonstration that decentralization *attains coherence only when it is anchored*. In doing so, it provides essential doctrinal validation for one of DAC’s foundational claims: **that decentralization, when constitutionally aligned, becomes a stabilizing force rather than a destabilizing one.**

9) NATRA — National Traffic Architecture for Real-Time Routing, Jurisdictional Equity, and Autonomous Vehicle Interoperability (2025)

Scholarly Summary

NATRA establishes the first blockchain-anchored national traffic coordination system in U.S. history—a sovereign, cryptographically governed mobility architecture that replaces fragmented, state-by-state transportation logic with a unified, jurisdictionally equitable, and autonomous-vehicle-ready digital infrastructure. Built through the Decker Protocol Series, NATRA operationalizes traffic governance as executable logic rather than administrative discretion, transforming national mobility into a programmable public utility.

Using smart-contract-based routing, decentralized notarization (via Attestata), and federally admissible consent protocols, NATRA achieves cross-jurisdictional interoperability under existing U.S. law, including the E-SIGN Act (15 U.S.C. §7001). Its six-contract protocol suite encodes national throughput rules, safety constraints, yield-routing mechanisms, AV-to-infrastructure communication standards, and pricing equilibria—all with full court admissibility through CLEARfund™ compliance pathways.

NATRA’s simulation models project major macroeconomic and human-safety benefits:

\$175–260 billion annual GDP uplift, including

- \$50–75B in recovered labor productivity
- \$30–50B in accelerated freight velocity
- \$12–20B in toll revenue recovery and leakage elimination
- \$40–60B in reduced accident-related costs

7,000–11,000 lives saved annually through deterministic routing, hazard prediction, and real-time consensus-based signal management

Full AV interoperability, integrating machine-readable smart-contract logic with sensor-fusion autonomy stacks

To prevent speculative financial activity, NATRA incorporates the PriceRisesFunction—a liquidity throttle that binds token appreciation strictly to infrastructure reserve backing—ensuring compliance with SEC Regulation D and eliminating market-driven volatility. This economic model forms a core pillar of Covenantal Economics™, anchoring mobility yield to lawful infrastructure performance rather than speculative trading.

NATRA demonstrates that transportation infrastructure, when governed by sovereign smart contracts, becomes safer, more efficient, and fiscally regenerative—returning value directly to the jurisdictions where mobility occurs. It is not a theoretical framework; it is a deployable, regulator-verifiable mobility architecture designed for national scale.

Relevance to The Doctrine of Anchored Decentralization

NATRA is one of the clearest infrastructural proofs of DAC’s central thesis: *decentralization becomes stabilizing only when it is anchored to constitutional authority, jurisdictional equity, and enforceable public-benefit logic.*

NATRA exemplifies this across five dimensions:

1. Jurisdictional Anchoring

Transportation governance requires clear territorial authority. NATRA resolves the “stateless network problem” that DAC critiques by assigning every routing decision to a jurisdiction-tagged smart contract.

Decentralization is permitted—but only inside a constitutional perimeter.

2. Chain of Consent

All traffic decisions—signal changes, hazard responses, AV interactions—are notarized through Attestata and CLEARfund™, producing *court-admissible, regulator-verifiable consent trails*. DAC’s Chain of Consent doctrine is therefore fully instantiated in NATRA’s notarization infrastructure.

3. Fiduciary and Economic Integrity

NATRA eliminates price speculation through the PriceRisesFunction, proving that decentralized systems do not require market volatility to function.

This directly supports DAC’s argument that *unanchored tokenomics are constitutionally incompatible with sovereign infrastructure.*

4. Constitutional Cohesion

NATRA is deployable under existing law—most critically the E-SIGN Act—which validates smart-contract-anchored consent structures for federal use.

This aligns perfectly with DAC’s assertion that *lawful decentralization must occur inside existing statutory frameworks.*

5. Autonomous Vehicle Integration as Decentralized Governance

AVs reveal the limits of unanchored decentralization: without enforceable routing protocols, autonomy collapses into liability chaos.

NATRA demonstrates how decentralized machine agents can operate safely when their behavior is anchored to jurisdiction-tagged smart-contract law.

Doctrinal Function Inside DAC

Within The Doctrine of Anchored Decentralization, NATRA serves as the mobility-sector proof of concept for the broader constitutional architecture:

- **DEFIANCE** anchors forensics
- **HELIX** anchors healthcare
- **FRAFI/FRYTs** anchor financial infrastructure
- **NATRA** anchors transportation and mobility

Together, these demonstrate that DAC is not merely philosophical—it is operational. NATRA confirms that decentralization, when constitutionally tethered, becomes a system of order, safety, and national solvency.

10) ARX-NAVIS — Blockchain-Based National Infrastructure for Autonomous Vehicle Mobility and Satellite-Governed Routing (2025)

Scholarly Summary

ARX-NAVIS introduces the first blockchain-governed, satellite-integrated mobility architecture capable of supporting national and international autonomous vehicle (AV) systems within existing legal, fiscal, and regulatory frameworks. Designed as a sovereign, cryptographically anchored transportation infrastructure, ARX-NAVIS replaces the fragmented, centralized, and economically fragile systems of current AV governance with a routing, tolling, and safety ecosystem executed entirely through smart contracts.

At the technical core is the Decker Protocol Series—six interoperable smart-contract engines establishing national mobility logic:

- **DLTE** — decentralized failover thresholds for network resilience
- **DP3** — consent-based micro-tolling with user visibility
- **DPMX** — jurisdictional priority arbitration honoring territorial sovereignty
- **D-GORME** — orbital-to-ground routing for satellite-governed mobility
- **DARIM** — cryptographic safety incentives aligned with AV behavioral telemetry
- **DNJ-SDM** — automated geospatial revenue disbursement

These protocols were validated through SUMO, NS-3, and Starlink-class simulations, demonstrating stable sub-150ms latency tolerance, congestion-aware dynamic routing, and throughput equity even under degraded conditions.

Economically, ARX-NAVIS achieves full fiscal sustainability via sovereign ABDC reserve corridors and NEXUS3, the SEC-registered (Reg D) 1% interchange-fee protocol developed by Web3 Labs LLC. Every toll transaction is routed into jurisdiction-tagged smart-contract treasuries, enabling self-funding infrastructure with no new taxation. Monte Carlo simulations project \$3–5 billion in reserve accumulation over 10 years, with installation payback periods between 24 and 30 days.

Legally, ARX-NAVIS operates entirely within current U.S. and international frameworks: DOT/NHTSA mobility rules, FCC spectrum coordination, GDPR and CCPA data privacy mandates, EETS tolling standards, and CUAS compliance for orbital-ground integration. The architecture embeds zero-knowledge privacy guarantees, multisignature emergency override logic, and role-weighted DAO governance (A-PID), ensuring transparent authority for public-sector agencies while preserving cryptographic safety for AV manufacturers and operators.

Strategically, ARX-NAVIS is interoperable with EU, ASEAN, and NATO-aligned mobility frameworks, enabling V2V swarm coordination, cross-border safety enforcement, and orbital

arbitration for next-generation transportation corridors. It requires *no new legislation*, serving as a fully deployable model for sovereign-aligned autonomous mobility at national scale.

ARX-NAVIS demonstrates that decentralized mobility governance is not speculative: it is computationally validated, regulator compliant, fiscally sovereign, and operationally ready.

Relevance to The Doctrine of Anchored Decentralization

ARX-NAVIS is one of the strongest sector-specific proofs of DAC's overarching thesis: **decentralization achieves legitimacy and stability only when anchored to constitutional authority, jurisdictional visibility, and enforceable public-benefit logic.**

1. Anchoring Decentralized Mobility to Constitutional Authority

Mobility governance implicates the Commerce Clause, federal preemption, and multi-jurisdictional territorial rights. ARX-NAVIS resolves the constitutional ambiguities inherent in decentralized AV systems by explicitly encoding jurisdictional arbitration (DPMX) into smart-contract logic.

This instantiates DAC's core requirement: decentralization cannot exist outside the constitutional perimeter.

2. Chain of Consent in Autonomous Systems

AV routing decisions — whether orbital, regional, or local — are governed by Attesta notarization and CLEARfund™ consent channels.

Every mobility event becomes court-admissible, regulator-visible, and cryptographically attributable.

This operationalizes DAC's Chain of Consent doctrine at machine speed.

3. Economic Anchoring Without Speculation

Through NEXUS3 and ABDC reserve corridors, ARX-NAVIS eliminates speculative pricing and prevents tokenized congestion arbitrage — a central risk DAC identifies in unanchored decentralization.

ARX-NAVIS proves that *decentralized systems do not require market speculation to remain viable*.

4. Enforcement Without Centralization

The A-PID role-weighted DAO governance structure provides distributed enforcement with clear lines of authority, satisfying DAC's requirement for a model of decentralization that is accountable but not centralized.

5. Solving the Stateless Network Problem in AV Governance

Autonomous vehicles operate across state lines at machine speed, creating jurisdictional ambiguity. ARX-NAVIS resolves this by tagging every machine decision to a jurisdiction-bound smart-contract action, validating DAC's claim that decentralization must be traceable to territorial authority.

Doctrinal Function Inside DAC

Within the architecture of *The Doctrine of Anchored Decentralization*, ARX-NAVIS serves as the mobility-and-orbital counterpart to FRAFI, NEXUS3, HELIX, and DEFIANCE:

- **FRAFI** anchors finance
- **HELIX** anchors healthcare
- **DEFIANCE** anchors forensic governance
- **NATRA** anchors terrestrial mobility
- **ARX-NAVIS** anchors orbital-ground autonomous mobility

ARX-NAVIS therefore stands as a doctrinal exemplar of DAC's most central proposition: **Decentralization is not inherently stabilizing—but decentralization anchored to law, jurisdiction, and fiduciary architecture can become a new pillar of national coherence.**

11) SingularVote™ — A Cryptographically-Verifiable, Constitutionally-Structured National Voting Architecture (2025)

Scholarly Summary

SingularVote™ is the first electoral infrastructure engineered to unify constitutional doctrine, cryptographic proof systems, biometric identity assurance, and federal evidentiary requirements into a single, sovereign-deployable voting architecture. Developed under the Doctrine of Strategic Parity (DSP), SingularVote™ is grounded in the parity principle that structural transparency must equal cryptographic transparency—ensuring that every physical, procedural, and digital layer of the electoral process is equally auditable, tamper-evident, and independently verifiable.

The architecture operates under a zero-trust electoral security model, segmenting the voting workflow into isolated subsystems—Identity Assurance, Ballot Interaction, and Ledger Execution—each with dedicated cryptographic boundaries, forensics gates, and jurisdictional checks. No subsystem can compromise another; each event is logged with cryptographic guarantees enforceable under the Federal Rules of Evidence 902(13)–(14).

Its sovereign deployment model is expressed as the Three-Layer Sovereign Stack, encompassing:

1. Identity Assurance Layer (IAL)

Designed to validate lawful voter eligibility without enabling state overreach, the IAL supports REAL ID, CAT-2 compliant credentials, and biometrics (facial recognition, fingerprint, palm-vein) under NIST SP 800-63A IAL3. It uses federated trust integration and anonymized tokenization to maintain constitutional secrecy while preventing fraudulent enrollment.

2. Ballot Interaction & Accessibility Layer (BIAL)

This voter-facing environment meets or exceeds the ADA, CVAA, Section 508, and Voting Rights Act requirements. Hardware accessibility, multilingual audio ballots, Braille navigation, and high-contrast interfaces enforce Equal Protection and satisfy SCOTUS precedent from *Reynolds v. Sims*, *Bush v. Gore*, *Harper*, and *Anderson v. Celebrezze*. Every ballot is rendered from a certified Ballot Definition File (BDF) loaded in read-only mode, with forensic alerts for any attempted modification.

3. Ledger Execution Layer (LEL)

Encrypted ballots are public-verifiable yet privacy-preserving, committed using AES-256, TPM-signed transactions, and Zero-Knowledge Proofs (ZKPs) that confirm inclusion without revealing content. Receipts contain a transaction hash and QR code linking to a read-only public verification portal. Every commit is sovereign-anchored, court-admissible, and bound to treaty-verifiable transparency.

To unify federal, state, mail-in, military, overseas, and remote ballots into a single evidentiary standard, SingularVote™ houses all cryptographic election records in the Federally Protected Electoral Record Ledger (FPERL)—the first warrant-gated, fourth-amendment-compatible federal electoral evidence architecture. FPERL harmonizes blockchain immutability with the Federal Records Act, Carpenter-Riley privacy protections, and a federal-state validator model that preserves state sovereignty while ensuring uniform evidentiary standing for SCOTUS review.

Collectively, SingularVote™ transforms election administration from a patchwork of heterogeneous systems into a uniform, cryptographically enforced, constitutionally compliant national infrastructure.

Relevance to The Doctrine of Anchored Decentralization

SingularVote™ stands as the *purest democratic instantiation* of DAC’s central thesis: decentralization attains legitimacy only when firmly anchored to jurisdictional visibility, constitutional structure, and enforceable fiduciary accountability.

1. Constitutional Anchoring as the First Layer of Decentralization

SingularVote™ is not a “blockchain voting system”—it is a *constitutional voting system executed through blockchain logic*. Every subsystem is traceable to:

- Article I (elections and legislative authority)
- Article II (executive enforcement fidelity)
- Article IV (full faith and credit, state sovereignty)
- The 14th Amendment (Equal Protection and Due Process)

DAC asserts that decentralization becomes dangerous when it drifts above constitutional authority; SingularVote™ prevents this by encoding constitutional protections into the architecture itself.

2. Decentralized Proof, Centralized Legitimacy

Unlike pseudonymous cryptosystems, SingularVote™ enforces:

- identity-bound eligibility
- jurisdiction-bound ballot certification
- uniformity requirements from *Bush v. Gore*

This establishes DAC’s “Chain of Consent”—a system where decentralization *cannot sever itself* from lawful authority.

3. Forensic Transparency Without Surveillance

Through IAL tokenization and warrant-gated FPERL records, SingularVote™ demonstrates DAC's principle that *privacy and transparency are not opposites but can be cryptographically harmonized* when architecture is law-centered.

4. Zero-Trust Governance Aligned With Sovereignty

DAC holds that decentralization must not dissolve sovereignty. SingularVote™ proves this by designing:

- state-controlled validator nodes
- federal evidentiary standards
- treaty-compliant audit frameworks
- role-weighted authority across jurisdictions

Decentralization is allowed only within *sovereign constitutional boundaries*.

5. Cryptographic Equal Protection as a Doctrinal Contribution

By embedding SCOTUS case law into system behavior—accessibility, ballot secrecy, uniform standards—SingularVote™ operationalizes DAC's core argument:

For decentralization to be lawful, it must encode doctrine, not evade it.

Doctrinal Function Inside DAC

SingularVote™ is the democratic counterpart to the other DAC infrastructures:

- **NEXUS3** (public finance)
- **FRYT** (sovereign yield trusts)
- **Lincoln Coin** (constitutional monetary architecture)
- **Sovereign Ledger** (blockchain banking compliance)
- **CLEARfund** (federal trust execution)
- **DEFIANCE** (evidentiary forensics)
- **HELIX** (health finance)
- **NATRA / ARX-NAVIS** (mobility governance)

Where those systems anchor markets, health, mobility, and finance, *SingularVote™ anchors the Republic itself*—bringing democratic legitimacy, forensic continuity, and constitutional fidelity into decentralized environments.

In DAC's architecture, SingularVote™ stands as the Foundational Democratic Anchor, proving that decentralization can serve—not supersede—the Constitution.

III. Cross-Cutting Competencies Demonstrated

The collective body of work summarized in Category I (Law) and Category II (Critical Blockchain Infrastructure) demonstrates an interdisciplinary competency profile rarely found in contemporary legal scholarship. Harvard Law standards require that a doctrinal architect not only master the jurisprudence of their subject matter, but also demonstrate integrated fluency across the systems—technical, economic, administrative, and evidentiary—that the doctrine purports to govern.

The following cross-cutting competencies are therefore established through the author’s published works, regulatory filings, and validated infrastructures. Together, they form the doctrinal and operational authority underpinning *The Doctrine of Anchored Decentralization (DAC)*.

A. Constitutional Engineering and Interpretive Integration

Across the corpus—particularly *The Harvest Labs Doctrine™*, *The Sovereign Ledger Doctrine™*, *The Immutable Proof Doctrine*, and *FPERL*—the author demonstrates the ability to translate constitutional principles into computationally enforceable structures. This includes:

- operationalizing the Commerce Clause, Supremacy Clause, and Article I monetary powers into smart-contract gating;
- applying the *Howey*, *Reves*, *Forman*, *Daubert*, and *Crawford* lines of cases to digital architectures;
- embedding separation-of-powers logic into decentralized infrastructures through multisignature judicial access, warrant gating, and administrative audit rails.

This fusion of doctrine and execution constitutes a form of *constitutional engineering*—a competency necessary for any credible attempt to regulate decentralized systems at sovereign scale.

B. Cross-Regime Regulatory Mastery and Compliance Translation

The author’s infrastructures reflect not only awareness of regulatory categories but the ability to encode them directly into operational systems.

Across FRAFI, FRYT, NEXUS3, and CLEARfund™ :

- **SEC Regulation D compliance** is converted into lifecycle constraints and jurisdictional whitelisting.
- **IRS Subchapter K** is translated into automated K-1 and 1099 issuance via smart-contract triggers.

- **FinCEN BSA/AML mandates** become address-level sanctions filters and KYC-anchored firewall logic.
- **OFAC enforcement** is built into transaction-path filtering and jurisdictional geofencing.
- **GAO/OIG auditability** is achieved through immutable evidentiary logs and real-time read-node observability.

This demonstrates the rare capability to convert *legal obligation into executable code*, bridging the divide between normative requirements and operational infrastructure.

C. Cryptographic, Forensic, and Evidentiary Competence

The Immutable Proof Doctrine, DEFIANCE™, FPERL, and the DSP-aligned SingularVote™ architecture establish that the author possesses full-spectrum mastery in evidentiary cryptography and forensic chain-of-custody design:

- Zero-Knowledge Proof (ZKP) structures for privacy-preserving validation
- NFTs as evidentiary anchors for firearms and electoral records
- UUPS-upgradeable contracts with formal verification (Certora, MythX)
- cryptographic tamper detection across both civil and criminal evidentiary regimes
- hardware-secured vote capture and TPM-bound signing keys
- warrant-gated access frameworks compliant with Carpenter, Riley, and the Federal Records Act

This reflects proficiency in *cryptographic due-process engineering*, a discipline that merges legal admissibility with computational immutability.

D. Autonomous Economic Systems and Sovereign-Scale Modeling

The author's works—Covenantal Economics™, NATRA, ARX-NAVIS—demonstrate advanced fluency in sovereign-compatible economic modeling:

- construction of DSGE/VAR, Monte Carlo, and multi-corridor yield simulations;
- formulation of original economic indices (STI, CYE, DIDI, DBHMI, DCCCE);
- infrastructure-bound monetary design (Lincoln Coin™, ABDC regimes);
- integration of fiscal architecture with constitutional limits (Appropriations Clause, debt-validity compliance).

This competency shows that the author is not merely designing cryptographic tools, but *sovereign-grade economic systems* that cohere with U.S. constitutional, fiscal, and appropriations law.

E. Multi-Domain Technical Architecture and Systems Engineering

The infrastructures presented reflect fluency across:

- smart contract ecosystems (Solidity, DAO governance, quorum logic, override protocols)
- satellite-ground routing orchestration (ARX-NAVIS orbital integration)
- autonomous vehicle interoperability (NATRA mobility grid)
- multi-chain fund administration (CLEARfund™)
- interagency data-integrity systems (HELIX Protocol health finance)
- operational resilience aligned with Basel III, FSOC, and NIST guidelines

This establishes the author’s capacity to design national-scale decentralized systems with reliability, redundancy, and constitutional constraints embedded by design.

F. Interagency Governance Integration

A unifying competency across all works is the ability to produce architectures compatible with the legal authorities, operational mandates, and jurisdictional constraints of federal agencies such as:

- SEC, CFTC, IRS
- Treasury, FinCEN, OFAC
- DOJ, FBI, ATF
- DOT, NHTSA, CMS, ONC
- GAO, FSOC, FCC, USDA

The author demonstrates an uncommon ability to harmonize these institutions into coherent, cross-functional architectures where compliance is not post-hoc, but *native*.

G. Doctrinal Coherence Across 15 Interlinked Frameworks

The corpus demonstrates a rare “whole-of-doctrine” integration:

- finance (*FRAFI*, *FRYT*, *CLEARfund™*)

- mobility (*NATRA, ARX-NAVIS*)
- healthcare (*HELIX Protocol*)
- evidentiary systems (*Immutable Proof Doctrine, DEFIANCE™*)
- electoral integrity (*SingularVote™ / DSP*)
- sovereign monetary architecture (*The Lincoln Coin™*)
- macroeconomic solvency (*Covenantal Economics™*)

Across these domains, the author consistently demonstrates the ability to bind:

- constitutional law
- statutory compliance
- administrative capacity
- cryptographic enforcement
- economic modeling
- systems engineering

into a unified framework of sovereign-compatible decentralization.

H. Normative Governance and Constitutional Stewardship

Finally, the author's works demonstrate a commitment to normative governance values required for standing in constitutional doctrine:

- fiduciary integrity
- transparency
- anti-speculation design
- public welfare primacy
- jurisdictional accountability
- chain-of-consent legitimacy
- federal supremacy in sovereign domains
- deference to democratic authority over computational autonomy

This combination of normative grounding and technical rigor is essential for any doctrine that seeks to redefine decentralization as a constitutional, not merely computational, construct.

I. Conclusion: Cross-Disciplinary Authority Established

Taken together, these competencies show that the author possesses a uniquely integrated capability: the ability to design decentralized systems that remain fully compliant with constitutional law, statutory governance, administrative enforcement, sovereign economics, and cryptographic integrity.

Under Harvard Law's standards for doctrinal scholarship, these cross-cutting competencies establish the requisite authority to articulate *The Doctrine of Anchored Decentralization* as a legitimate, rigorous, and nationally relevant framework.

IV. Declaration of Method and Constraint

The Doctrine of Anchored Decentralization (DAC) is developed under a methodological discipline that mirrors the standards of legal rigor required by Harvard Law’s tradition of constitutional scholarship. Because DAC operates at the intersection of constitutional law, cryptographic infrastructure, federal administrative authority, and sovereign economic design, its legitimacy depends not merely on the accuracy of its conclusions but on the transparency and constraint of the method used to reach them.

Accordingly, the following declaration establishes the interpretive method, evidentiary constraints, and doctrinal boundaries that govern every argument advanced within DAC.

A. Methodological Foundation: Constitutional Primacy and Interpretive Discipline

The analytic method underlying DAC adheres to four core interpretive commitments:

1. Constitutional Supremacy as the Outer Boundary of Permissible Design

Every decentralized system, economic architecture, or evidentiary protocol examined within DAC is interpreted through the baseline constraints of:

- the Commerce Clause,
- the Appropriations Clause,
- the Tenth Amendment,
- Article I monetary powers,
- and the Fourteenth Amendment’s due-process and equal-protection guarantees.

No technological proposal is evaluated outside these interpretive constraints. Computational autonomy never supersedes constitutional authority.

2. Statutory Fidelity Over Policy Preference

Wherever federal statutes (e.g., Securities Act of 1933, BSA/AML, Federal Records Act, IRS Subchapter K) provide explicit mandates, DAC interprets blockchain-based systems only through the lens of what can be executed *within* existing law—not what could be achieved through hypothetical reform.

The method does *not* rely on assumed legislative change. Only present statutory authority may be used as a design substrate.

3. Administrative Law as Operational Constraint

DAC treats federal agencies not as abstractions but as sources of binding operational authority. Thus, every proposed system must satisfy:

- SEC investor-classification doctrine,
- IRS attribution rules,
- FinCEN/OFAC surveillance mandates,
- DOJ fiduciary enforcement logic,
- GAO audit standards,
- and NIST cybersecurity requirements.

The method does not allow “compliance-by-intent.”

It requires *compliance-by-design*, at the level of smart-contract execution.

4. Evidentiary Integrity as a Non-Negotiable Requirement

Every ledger, signature, data-trail, or cryptographic event examined within DAC is assessed under standards derived from:

- Daubert v. Merrell Dow,
- Melendez-Diaz v. Massachusetts,
- Rules 902(13), 902(14), and 803(6) of the Federal Rules of Evidence.

If a decentralized system cannot withstand cross-examination, adversarial review, or forensic scrutiny, it cannot satisfy DAC’s method.

B. Structural Constraints: Limits Imposed on the Doctrine Itself

To prevent doctrinal overreach, DAC operates under explicit constraints—each functioning as a methodological guardrail.

1. No Policy Speculation

DAC does not rely on hypothetical congressional action, future regulatory expansion, or speculative statutory interpretation.

If a system requires new law, DAC categorically excludes it.

2. No Assumption of Benevolent Actors

All models assume adversarial conditions—malicious participants, regulatory evasion, and computational exploitation. If a system cannot remain lawful under adversarial use, it fails DAC’s criteria.

3. No Technological Exceptionalism

Technology cannot create legal authority.

DAC rejects any assumption that cryptographic capability confers constitutional legitimacy.

4. No Anonymity-Based Governance

DAC requires jurisdictional accountability.

Systems dependent on pseudonymous or extrajurisdictional control cannot satisfy the doctrine’s threshold for constitutional anchoring.

5. No Extra-Constitutional Monetary Claims

DAC affirms that all monetary issuance must remain bound to Article I, Section 8 and the 14th Amendment.

No digital system may claim sovereign money status unless explicitly authorized by constitutional mechanisms.

C. Evidentiary Method: Proof, Verification, and Reproducibility

1. Documentation Requirements

Every claim within DAC is backed by:

- published SSRN papers,
- federal statutory citations,
- peer-reviewed cryptographic proofs,
- simulation models (Monte Carlo, VAR, DSGE),
- or operational deployments (e.g., CLEARfund™, FRYT).

2. Reproducibility Requirement

All protocols (NEXUS3, HELIX, NATRA, ARX-NAVIS, DEFIANCE, etc.) must be:

- reproducible in code,
- auditable by agencies,

- verifiable via read-node observability,
- and testable under adversarial conditions.

3. Admissibility Requirement

Any decentralized evidentiary architecture (FPERL, Immutable Proof Doctrine, SingularVote™) must withstand:

- cross-examination,
- chain-of-custody challenge,
- forensic replication,
- and Daubert validity criteria.

If evidence cannot enter court, it cannot enter DAC.

D. Limitation on Authorial Discretion

The author places strict limits on personal interpretive discretion:

1. No Outcome-Driven Reasoning

DAC does not permit post-hoc justification of preferred decentralization outcomes.

2. No Intellectual Substitution

Where expert domains exceed the doctrine's scope (e.g., advanced biomedicine, classified defense systems), DAC defers to recognized authoritative frameworks.

3. No Rhetorical Inflation

Claims are confined to what can be demonstrated through:

- law,
- code,
- economic modeling,
- and constitutional doctrine.

DAC expressly forbids appeals to novelty, speculation, or futurism.

E. Purpose of Declaration

This Declaration of Method and Constraint establishes that DAC:

- is not speculative political theory;
- is not a technological manifesto;
- is not a libertarian or crypto-ideological thesis.

It is a **constitutional doctrine**, bound by:

- verifiable facts,
- enforceable law,
- audited code,
- and measurable economic impact.

The purpose of this declaration is to ensure that every claim made within DAC—whether legal, technical, or economic—remains anchored to the constitutional, statutory, and administrative perimeter that defines the lawful operation of the American Republic.

It is a public commitment to **discipline over ambition, structure over abstraction, and law over novelty**.

V. Statement of Authorial Fitness to Advise Sovereign Digital Policy

The development of sovereign digital policy—policy that binds constitutional authority, fiscal sovereignty, and national security to computational systems—requires a standard of authorial fitness beyond technical fluency or academic proficiency. It demands mastery across constitutional doctrine, administrative law, economic modeling, cryptographic architecture, and systems engineering, each operating at a level capable of informing federal and allied-state decision-making.

In submitting this work, the author affirms the following:

A. Constitutional and Legal Competence

The author’s foundational body of scholarship demonstrates sustained and rigorous engagement with core domains of U.S. constitutional law, statutory construction, and administrative enforcement. Across *The Doctrine of Constitutional Self-Restraint*, *The Immutable Proof Doctrine*, *The Federal Trust Layer™*, and *The Sovereign Ledger Doctrine™*, the author has repeatedly:

- Interpreted federal powers within the precise confines of Article I, Article II, and the Fourteenth Amendment;
- Applied *Howey*, *Reves*, *Forman*, *Carpenter*, *Riley*, *Chadha*, *Youngstown*, and *Richmond* as binding doctrinal anchors;
- Constructed systems that operationalize federal statutes—including the Securities Act of 1933, the Internal Revenue Code, the Federal Records Act, the Antideficiency Act, and the BSA/AML regime—within executable, audit-ready computational architectures;
- Demonstrated fidelity to judicial precedent by designing systems that preserve due process, equal protection, evidentiary reliability, and constitutional privacy.

This doctrinal foundation provides the legal competence necessary for informed sovereign digital policy recommendations.

B. Cryptographic, Computational, and Systems-Engineering Competence

The author’s technical corpus spans protocols and infrastructures implemented or validated across multiple national-scale domains:

- **CLEARfund™** — sovereign-grade, IRS-compliant smart-contract financial administration;
- **FRAFI / FRYT** — regulator-visible autonomous finance architectures;

- **NEXUS3** — the first SEC-registered, non-speculative interchange-fee blockchain protocol;
- **DEFIANCE** — cryptographically governed forensic chain-of-custody systems;
- **SingularVote™ / FPERL** — zero-knowledge, warrant-gated electoral record systems;
- **HELIX, NATRA, ARX-NAVIS** — nationwide blockchain mobility, healthcare, and routing infrastructures.

These works demonstrate not only fluency but engineering maturity across cryptographic proofs, smart-contract governance, multi-chain system design, audit trails, satellite-ground synchronization, biometric identity, and latency-sensitive system deployment.

C. Economic and Fiscal Competence

The author's economic models—*Covenantal Economics™*, the Decker Sovereign Trust Index (STI), the Covenantal Yield Equation (CYE), DSSIM, DBHSS, DIDI, DBHMI, and national-level Monte Carlo simulations—demonstrate mastery across:

- macroprudential stability analysis,
- sovereign debt modeling,
- infrastructure-yield economics,
- Basel III systemic-risk frameworks,
- fiscal solvency projections,
- and GDP-linked corridor economics.

The resulting systems (CLEARfund™, FRYT, FRAFI) are not speculative theories but executable architectures producing measurable fiscal projections consistent with federal appropriations logic.

D. Evidentiary, Forensic, and Administrative Competence

Through *The Immutable Proof Doctrine™*, *DEFIANCE*, and *FPERL*, the author has demonstrated:

- admissibility design under FRE 902(13), 902(14), Daubert, and Melendez-Diaz;
- compliance with DOJ forensic chains, JAG evidentiary workflows, and court-gated access control;
- design of privacy-preserving architectures compatible with Carpenter, Riley, and Fourth Amendment constraints;

- capacity to align computational systems with federal recordkeeping mandates and cross-agency operational realities.

This evidentiary competence is essential for sovereign digital transitions that must withstand judicial scrutiny.

E. Interdisciplinary Fitness and Cross-Domain Readiness

Sovereign digital policy requires the rare ability to unify law, economics, cryptography, engineering, and national security into a coherent constitutional framework. Across more than a dozen doctoral-length works, the author has exhibited:

- **Doctrinal integration** (constitutional and statutory fidelity across all architectures);
- **Technical executability** (smart contracts, ZKPs, protocols, infrastructure models);
- **Economic legitimacy** (fiscal solvency through infrastructure-based yield);
- **Evidentiary sufficiency** (court-admissible design at every operational layer);
- **Administrative compatibility** (full alignment with agency mandates across DOJ, SEC, IRS, Treasury, FinCEN, OFAC, GAO, DOT, USDA, CMS, and NIST).

This multi-domain synthesis is the standard of fitness required for advising matters of national digital sovereignty.

F. Ethical and Constitutional Restraint

Finally, the author affirms that sovereign digital policy must be guided by three ethical constraints:

1. **Constitutional anchoring** — Decentralization must never evade jurisdiction, accountability, or the Chain of Consent.
2. **Human dignity** — Systems must strengthen public trust, protect civil liberties, and prevent technological overreach.
3. **Non-speculative design** — No architecture may rely on market volatility, anonymity, or extra-constitutional monetary constructs.

These constraints reflect a disciplined, principled approach to designing national digital infrastructure.

VI. Conclusion

Upon consideration of the record before it, and evaluating the author's qualifications under standards analogous to those governing institutional reliability, expert admissibility, and constitutional-scale policy competence, the following finding is warranted:

The author has demonstrated comprehensive mastery of constitutional doctrine, statutory interpretation, cryptographic and systems engineering, fiscal and econometric modeling, evidentiary architecture, and multi-domain sovereign system design. Taken together, these competencies establish the requisite degree of technical fluency, legal coherence, and analytical rigor expected of an individual advising sovereign entities on matters of digital policy and decentralized infrastructural design.

This conclusion is not predicated on self-attestation but on evidence properly before the body: evidence of disciplined method; evidence of principled constraint; and evidence of competence consistently exhibited across a documented, peer-reviewed, and regulator-recognized corpus of work. The cumulative weight of this evidence satisfies a standard analogous to judicial confidence in an expert's reliability and supports the finding that the author possesses the institutional fitness necessary to contribute meaningfully to the development, evaluation, and governance of sovereign digital policy within the constitutional order of the United States.

Reader's Methodological Orientation

[\(Return to TOC\)](#)

This Doctrine is drafted as a modular legal architecture rather than as a sequential narrative. Each chapter functions as an autonomous analytical unit capable of independent evidentiary standing, congressional appendage, and judicial examination without reliance on external interpretive inference. The structure is intentionally aligned with adjudicative legal reasoning: figures, tables, and exhibits function as demonstrative and empirical records; the narrative body supplies structured argumentation; and the statutory architectures contained in the Appendix operate as remedial and operational constructs. This design permits DAC to be evaluated under legislative, administrative, or judicial standards without requiring stylistic or ideological harmonization, and ensures the work remains structurally coherent under scrutiny applied by courts, congressional counsel, regulatory agencies, and institutional reviewers.

Every chapter is constructed using a standardized evidentiary format. The Glossary of Terms, Tables, and Structural Definitions contained within each chapter are not illustrative in character, but evidentiary in function. They are intended to operate as interpretive anchors, congressional reference artifacts, and judicially reviewable exhibits. Their purpose is to preserve semantic precision, prevent definitional drift, and maintain statutory coherence throughout the Doctrine.

Each chapter is drafted as a non-partisan institutional shield for the United States Congress. The analysis anticipates the most common statutory, constitutional, and jurisdictional arguments likely to be raised in legislative or regulatory review. Counter-arguments are not positioned rhetorically, but structurally, and are presented solely to preserve constitutional fidelity, statutory clarity, and separation-of-powers integrity. No chapter is drafted to advance political outcomes. Each chapter is drafted to preserve lawful decision-space.

To prevent legal drift, each chapter is written in the operational language of the governing agency whose jurisdiction is implicated. Regulatory structures are analyzed using the statutory grammar of the Securities and Exchange Commission, Commodity Futures Trading Commission, Department of the Treasury, Federal Reserve, and related agencies. This is intentional. The objective is not persuasion, but translational fidelity between constitutional text, statutory authority, and institutional enforcement reality.

The Executive Summary chapters are drafted as one-page congressional briefs. Each brief is designed to function as a standalone legislative appendix and may be attached to its corresponding chapter without structural modification. This one-page design is not stylistic. It is constitutional in purpose — to ensure that Members of Congress may apprehend complex technical and legal architecture without distortion, compression bias, or partisan filtration.

Every factual assertion in this Doctrine is grounded not in preference, theory, or ideology, but in law. Where a proposition is presented, the controlling constitutional provision, statutory authority, or governing precedent supplies the foundation. Interpretive discretion is minimized by design. Structural clarity is maximized as a matter of authorial obligation.

Appendix A contains a complete statutory-style rewrite of H.R. 3633. This redraft is presented in a non-partisan and non-ideological form and is authored from the perspective of a subject-matter practitioner in systems architecture, constitutional structure, and distributed-ledger infrastructure. It is not drafted as advocacy. It is drafted as an operational legislative instrument designed to function within observable institutional constraints.

The rewrite is anchored to the empirical operating conditions documented in Exhibits A, B, and C, which establish the post-2008 transition of the United States fiscal and monetary environment into a structurally elevated regime of systemic stress. These exhibits are treated as evidentiary architectural constraints rather than illustrative context. Accordingly, the statutory language within Appendix A is not aspirational in character; it is calibrated to the real operating environment within which Congress and federal institutions must function.

This approach ensures that the rewrite of H.R. 3633 is not positioned as policy advocacy, but as continuity-aligned legal infrastructure — capable of legislative adoption, institutional execution, and judicial examination without reliance on rhetorical framing or interpretive extrapolation.

In summation, this Doctrine is authored to eliminate structural ambiguity. The classification of digital instruments as commodities or securities is not treated herein as a political or discretionary question. It is treated as a matter of continuity-of-government architecture and constitutional coherence. Where decentralized systems satisfy the constitutional and statutory conditions of non-managerial commodities, they are accordingly recognized. Where managerial discretion, governance authority, or structural control mechanisms are present, legal classification follows established United States Supreme Court jurisprudence without deviation.

No coherent distinction between “commodity” and “security” may be sustained within existing constitutional, statutory, and jurisprudential architecture absent compliance with the Doctrine of Anchored Decentralization, which supplies the governing constitutional framework through which such classifications are to be evaluated, tested, and resolved under prevailing principles of United States law.

List of Figures

[\(Return to TOC\)](#)

The List of Figures is intentionally limited. This Doctrine contains only three figures, and their inclusion is not illustrative but structural. Each figure functions as a constitutional instrument rather than a visual aid. Their purpose is narrow and precise: to establish the legal and architectural conditions under which a digital economic object may be classified as a commodity rather than a security.

Figure 1 — Decision Tree on Determining Commodity Status Under the Anchored Decentralization Test (ADT) establishes the threshold inquiry. It operationalizes first principles by asking whether a system is non-managerial, non-discretionary, and economically inert with respect to human control. This figure provides the initial constitutional sorting mechanism and forecloses subjective classification.

Figure 2 — Constitutional Decision Architecture for Digital-Commodity Classification under DAC functions as the structural intermediary. It translates the outcome of the ADT into constitutional pathways, mapping how statutory commodities law and federal securities jurisprudence are triggered or foreclosed based on system architecture.

Figure 3 — Constitutional Qualification Framework for Stateless Digital Architectures performs the final gatekeeping function. It integrates the outputs of Figures 1 and 2 into a unified constitutional logic that determines whether a system satisfies the legal requirements of a commodity or must be treated under securities law.

These three figures are designed to interlock. Figure 1 establishes factual architectural reality. Figure 2 maps that reality onto statutory and constitutional doctrine. Figure 3 converts that mapping into justiciable constitutional classification. Together, they form a closed constitutional circuit. No additional figures are required because no additional questions exist within the scope of the Doctrine. The singular legal question addressed by the visual architecture is whether a digital system satisfies the constitutional requirements of a commodity or falls within securities jurisdiction. These figures supply that answer in enforceable form.

§I. Establishing the Legally and Economically Enforceable Definition of a Commodity

Title	Description	Page
<u>Figure 1. Decision Tree on Determining Commodity Status Under the Anchored Decentralization Test (ADT)</u>	Figure 1 presents the Anchored Decentralization Test (ADT), the first doctrinally enforceable framework for determining whether a digital asset satisfies the statutory definition of a commodity under CEA §1a(9). The ADT structure is intentionally eliminative: at each stage, the presence of managerial authority—technical, legal, or behavioral—disqualifies the asset from commodity treatment. Only assets that survive all four gates without evidence of discretion, governance power, or issuer influence may be classified as commodities. This workflow operationalizes the constitutional boundaries established by Howey, Reves, Forman, and modern textualist jurisprudence, translating them into a step-by-step evaluation that regulators, courts, and policymakers can apply consistently.	319

§II. System-Architecture Implications by Law and Constitutional Design

Title	Description	Page
<u>Figure 2.</u> <u>Constitutional</u> <u>Decision</u> <u>Architecture</u> <u>for Digital-</u> <u>Commodity</u> <u>Classification</u> <u>under DAC</u>	Figure 2 operationalizes the constitutional logic developed in this chapter by rendering visible the integrated architecture of digital-asset classification under the Doctrine of Anchored Decentralization. What precedes was definitional; what follows is evidentiary. Having established that commodity status under United States law is contingent not only upon the absence of managerial actors (Pillar 1), but upon the affirmative design of systems incapable of management (Pillar 2), the analysis turns from structural theory to practical consequence. The remaining sections of this chapter apply this dual-pillar framework to real-world system architectures, governance models, and network behaviors, demonstrating how constitutional classifications rise or collapse based on provable structural design rather than intent or narrative. The reader is guided from framework to application, from abstraction to enforcement, and from doctrinal architecture to operational law.	405

§III. Constitutional Balance and Proposed Refinement

Title	Description	Page
<u>Figure 3.</u> <u>Constitutional</u> <u>Qualification</u> <u>Framework for</u> <u>Stateless Digital</u> <u>Architectures</u>	This figure operationalizes the full constitutional sequence required for lawful stateless digital-economic architecture under United States law. Each decision node represents a binding threshold derived from the Commerce Clause, the Non-Delegation Doctrine, and Due Process jurisprudence, translating abstract constitutional constraints into sequential, testable structural requirements. The framework is intentionally eliminative: a negative determination at any stage is dispositive and renders the architecture constitutionally impermissible without recourse to discretionary reinterpretation. The figure transforms constitutional doctrine into a visual enforcement mechanism, enabling courts, regulators, and policymakers to evaluate whether a digital system preserves separation of powers, respects federal jurisdictional limits, and avoids unauthorized delegations of sovereign economic authority. Only systems that successfully satisfy every structural threshold illustrated herein may be lawfully recognized, classified, or integrated under federal law.	457

List of Tables

[\(Return to TOC\)](#)

The List of Tables is presented in a tabular format by design. This structure is not stylistic. It is methodological. Each table is constructed as an evidentiary-grade legal artifact, engineered to function as a self-contained analytical instrument capable of independent legislative, judicial, and regulatory review. The architecture of the List of Tables mirrors the modular structure of the Doctrine itself, ensuring that structural exhibits may be accessed, cited, and appended without dependency on narrative sequencing.

This design aligns with the operational realities of congressional and judicial workflow. Legislative drafting, agency rulemaking, and judicial review rely upon discrete evidentiary instruments rather than linear exposition. The List of Tables is therefore constructed to serve institutional method, not authorial preference. Each table is designed to stand alone, to be independently printable, and to be appended directly to its corresponding chapter, preserving navigational context and evidentiary integrity.

Readers are encouraged to use the List of Tables as a functional index of legal exhibits. Tables may be extracted and cited as structured proof, analytical anchors, and judicial reference artifacts. This modularity is intentional and structurally protected throughout the Doctrine, preventing interpretive drift, minimizing citation fracture, and preserving constitutional fidelity when materials are circulated independently within congressional, judicial, and regulatory environments.

§I. Establishing the Legally and Economically Enforceable Definition of a Commodity

The tables contained in Chapter I are not illustrative supplements; they are structural components of the Doctrine itself. Each table functions as an evidentiary instrument designed to interlock both vertically with Figures 1, 2, and 3 and horizontally with the other tables in this chapter, forming an integrated architecture of legal proof. Where the figures establish the constitutional logic of classification, the tables operationalize that logic through definitional, jurisdictional, comparative, and procedural frameworks. Together, they translate abstract legal doctrine into testable, repeatable, and court-deployable instruments. Table 1 establishes the non-managerial baseline upon which all commodity status depends. Tables 2 through 4 construct the constitutional and statutory scaffolding for lawful classification. Tables 5 through 8 dismantle false analogies and implement the Anchored Decentralization Test as a standardized decision system. Tables 9 through 12 hard-lock language to law, ensuring that interpretive drift is structurally prevented. Tables 13 and 14 complete the framework by aligning the Doctrine's classification logic against Supreme Court precedent and federal agency jurisdiction. In combination, these tables allow Congress, regulators, and courts to move from theory to enforcement with precision, coherence, and constitutional fidelity.

Title	Description	Page
<u>Table 1. Managerial vs. Non-Managerial Economic Objects</u>	Distinguishes assets governed by human or organizational discretion from those that function independently of managerial control.	224
<u>Table 2. Jurisdictional Anchor Framework</u>	Maps the constitutional conditions under which the United States may assert regulatory authority over economic objects.	229
<u>Table 3. Comparative Constitutional Compliance: TradFi vs. DeFi vs. FRAFI</u>	Compares legacy, decentralized, and federally aligned financial systems against constitutional compliance criteria.	230
<u>Table 4. Three-Regime Model: Commodity / Security / Currency</u>	Clarifies the legal boundaries separating commodities, securities, and sovereign monetary instruments.	239
<u>Table 5. False Equivalence Between Digital Payment and Barter</u>	Demonstrates why digital payment systems cannot be treated as legally equivalent to barter arrangements.	242

<u>Table 6. NFT vs. ACP</u>	Compares Non-Fungible Tokens and Autonomous Commodity Primitives across legal and structural dimensions.	265
<u>Table 7. ACP vs. Warehouse Receipt vs. Bill of Lading</u>	Aligns ACPs with traditional federal documents of title used in commodities law.	268
<u>Table 8. ADT Commodity Classification Test (“Idiot-Proof Edition”)</u>	Step-by-step classification framework for DeFi protocols, tokens, NFTs, and digital systems under DAC.	321
<u>Table 9. Legal Cross-Reference Index for Key Glossary Terms</u>	Links critical defined terms to statutes, doctrines, and interpretive authorities.	330
<u>Table 10. Glossary → Case Law Map</u>	Connects glossary terms directly to controlling judicial precedents.	333
<u>Table 11. Glossary → Constitutional Clauses Map</u>	Aligns glossary terms with relevant constitutional provisions.	335
<u>Table 12. Glossary → ADT Decision-Tree Dependencies</u>	Visualizes how definitions drive the logic of the ADT decision framework.	337
<u>Table 13. ADT vs. Howey vs. Reves vs. CEA Comparison Matrix</u>	Side-by-side comparison of DAC’s ADT against Supreme Court and statutory standards.	350
<u>Table 14. ADT vs. SEC vs. CFTC vs. Treasury Authority Map</u>	Clarifies jurisdictional boundaries and authority limits of major federal agencies.	353

§II. System-Architecture Implications by Law and Constitutional Design

The tables in this section function as internal compliance architecture for the Doctrine itself. They are designed to convert abstract legal standards into traceable, enforceable, and internally consistent rule structures. Rather than serving as descriptive aids, these tables operate as control surfaces—mapping doctrinal rules, cross-references, and enforcement consequences into a closed, auditable system. Together, they ensure that no provision of the Doctrine exists in isolation and that every rule is anchored to definitional, constitutional, and operational foundations. This structure enables Congress, regulators, courts, and technical architects to test internal coherence, identify points of legal fragility, and apply enforcement logic without interpretive discretion or stylistic interpolation.

Title	Description	Page
<u>Table 15. Internal Cross-Reference Map</u>	Provides a structured index mapping doctrinal provisions, defined terms, and enforcement standards across the internal architecture of the Doctrine.	410
<u>Table 16. Table of Defined Doctrinal Rules — §II: System-Architecture Implications by Law and Constitutional Design</u>	Catalogues each enforceable doctrinal rule established within Chapter II and aligns them with their corresponding legal and constitutional foundations.	414
<u>Table 17. Doctrinal Rules Enforcement Table</u>	Defines the operational enforcement logic by which doctrinal violations trigger legal, regulatory, and constitutional consequences.	417
<u>Table 17.1. Doctrinal Rules Enforcement Table (DeFi Community Edition)</u>	Translates formal enforcement standards into a technically accessible framework for architecture designers, protocol developers, and decentralized system participants.	419

§III. Constitutional Balance and Proposed Refinement

The tables in this section function as constitutional traceability and judicial navigation infrastructure. They are designed not to summarize doctrine, but to make it operational within institutional environments. Each table translates abstract constitutional concepts into structured, navigable frameworks that allow judicial clerks, Congressional Research Service analysts, regulators, and legislative counsel to follow the lineage of authority from text to doctrine to enforceable standard. These tables harden definitional boundaries, expose jurisdictional claims to verification, and permit constitutional constraints to be traced across chapters without interpretive drift. Collectively, they establish a transparent chain of legal custody for every core proposition in Chapter III, ensuring that constitutional compliance can be audited, tested, and applied with precision rather than discretion.

Title	Description	Page
<u>Table 18. “Verifiable Decentralization” vs. “Self-Attested Decentralization”</u>	Establishes a side-by-side legal and structural comparison between provable decentralization and marketing-based decentralization claims for constitutional and regulatory analysis.	445
<u>Table 19. Constitutional Crosswalk of Terms (Chapters I–III Alignment Matrix)</u>	Aligns key defined terms and doctrinal standards across Chapters I–III to ensure constitutional coherence and terminological stability.	462
<u>Table 20. Citation Map for Chapter III (Clerk & CRS Navigation Table)</u>	Provides a navigational matrix linking doctrinal sections to controlling statutes, case law, and legislative history for judicial clerks and Congressional Research Service use.	467

§IV. Doctrinal Synthesis — Reconstructing the Legal Definition of a Digital Commodity

The tables in this section function as evidentiary control structures rather than mere visual aids. Each table is designed to translate constitutional doctrine, statutory standards, and judicial precedent into structurally testable matrices capable of use in legislative, regulatory, and judicial environments. These tables do not argue; they demonstrate. They operate as verification instruments that expose structural disqualifiers, legal outcomes, and constitutional traceability with precision and repeatability. Collectively, they establish a closed evidentiary loop in which system architecture, governance features, and legal consequences are bound together in a format suitable for cross-examination, expert testimony, and statutory drafting. Their purpose is not to persuade, but to harden the record against ambiguity, drift, and post hoc reinterpretation.

Title	Description	Page
<u>Table 21. Comparative Matrix of Commodity Qualification Failures</u>	Provides a systemic comparison of structural and legal failure points that disqualify digital assets from commodity classification under federal law.	498
<u>Table 21.1. Comparative Matrix of Commodity Qualification Failures (Legal Outcome Criteria)</u>	Extends Table 21 by mapping each structural failure point to its corresponding statutory and constitutional legal consequence.	499
<u>Table 22. Constitutional Traceability Matrix (Case-Law to Structural Feature Crosswalk)</u>	Cross-references controlling judicial precedents to specific architectural and governance characteristics to establish constitutional traceability of system design features.	502

§V. The Relationship of Persons to Decentralized Governance Systems

The tables in this section function as behavioral-evidentiary control instruments designed to translate human conduct into legally cognizable facts within decentralized systems. Rather than describing participation abstractly, these tables operationalize how action, coordination, and influence become traceable sources of legal responsibility. They establish a structured method for identifying when roles evolve into authority, when behavior crosses into management, and when human conduct creates constitutional jurisdictional attachment. Collectively, these tables hard-lock behavioral patterns to legal consequence, allowing courts, regulators, and policymakers to evaluate decentralized systems not by narrative, but by auditable human-action evidence capable of withstanding cross-examination and judicial scrutiny.

Title	Description	Page
<u>Table 23. Actor Classification and Legal Consequence Matrix</u>	Classifies participant roles within decentralized systems and maps each role to corresponding legal duties, liabilities, and constitutional consequences.	525
<u>Table 24. Behavior-Based Managerial Risk Index</u>	Quantifies patterns of conduct that indicate emergent managerial authority within decentralized architectures and assigns legally relevant risk thresholds.	529
<u>Table 25. Jurisdictional Attachment via Human Conduct Matrix</u>	Maps how human actions within stateless or distributed systems create constitutional jurisdictional hooks under federal law.	531

§VI. Harvard Law Lens — Doctrinal Coherence and Constitutional Alignment

These tables are not illustrative aids, but evidentiary control structures designed to operationalize constitutional anchoring in the adjudication of decentralized systems. Each matrix functions as a legally cognizable crosswalk between technical architecture and controlling doctrine, translating protocol-level design choices into constitutional facts suitable for judicial inspection. The tables impose discipline on interpretive discretion by hard-mapping blockchain terminology, governance behaviors, and system failures to binding constitutional and statutory standards, including the Commodity Exchange Act, Non-Delegation Doctrine, and Supreme Court jurisprudence. Read together, they operate as a judicial control surface: constraining agency overreach, preserving separation-of-powers fidelity, and enabling courts to evaluate stateless architectures without exceeding constitutional mandate. Their purpose is not analytical convenience, but structural legitimacy—ensuring that any federal recognition of decentralized systems is anchored to demonstrable legal coherence rather than narrative or administrative assumption.

Title	Description	Page
<u>Table 26. Blockchain Terminology → Constitutional Anchoring Matrix</u>	Provides a structured mapping of blockchain-native terms to their corresponding constitutional and statutory anchors, establishing definitional control and interpretive stability.	549
<u>Table 27. Cross-Reference Matrix: Constitutional Glossary ↔ Anchored Decentralization Test (ADT)</u>	Aligns constitutional terminology with the operational criteria of the Anchored Decentralization Test (ADT), enabling traceable doctrinal application.	553
<u>Table 28. Judicial Application Matrix (ADT Structural Failure Analysis)</u>	Identifies structural failure points within decentralized system architectures that trigger judicially cognizable legal consequences under ADT standards.	554
<u>Table 28.1. Judicial Application Matrix (ADT Legal Consequence Mapping)</u>	Maps specific ADT structural deficiencies to their corresponding statutory and constitutional legal outcomes for court-ready analysis.	555

<u>Table 28.2. Case-Law Anchoring by Row (Judicial Precedent Mapping)</u>	Provides direct vertical alignment between ADT criteria and controlling judicial precedents to enforce doctrinal consistency and judicial usability.	556
<u>Table 28.3. Conflict-of-Doctrine Map (CEA vs. Howey vs. Non-Delegation)</u>	Visually and analytically documents areas of doctrinal tension between commodities, securities, and delegation frameworks to guide constitutional harmonization.	557

§VII. CFTC Lens — Jurisdictional Expansion and Enforcement Logic

The following tables are constructed as enforcement control instruments rather than descriptive reference aids. Each table operates as a structured evidentiary framework designed to translate statutory authority, constitutional limits, and technical system architectures into actionable enforcement logic. Table 29 functions as a jurisdictional calibration matrix, allowing regulators, courts, and congressional staff to distinguish precisely where Commodity Futures Trading Commission authority lawfully begins and where Securities and Exchange Commission authority constitutionally ends. Table 30 operationalizes system-architecture analysis for enforcement use by converting protocol design features, governance mechanisms, and behavioral control vectors into legally cognizable commodity-qualification indicators. Together, these tables provide a disciplined mechanism for preventing both under-enforcement and jurisdictional overreach, ensuring that enforcement action is grounded in structural reality rather than narrative representations or market folklore.

Title	Description	Page
<u>Table 29. Jurisdictional Lexicon Crosswalk: CFTC vs. SEC Authority</u>	Establishes a comparative legal language framework mapping statutory terms, enforcement triggers, and jurisdictional boundaries between the CFTC and SEC, clarifying points of overlap, conflict, and constitutional limitation.	569
<u>Table 30. System Architecture Lexicon: Commodity Qualification Matrix (CFTC Enforcement Use)</u>	Provides an enforcement-oriented structural matrix translating system design features into commodity qualification indicators, allowing regulators and courts to assess whether a digital architecture functions in substance as a commodity, security, or managed financial instrument.	574

§VIII. SEC Lens — Boundary Management and Doctrinal Friction

The tables contained within this section are not illustrative aids; they are constitutional and compliance instruments. Each table functions as a controlled analytical surface designed to translate securities doctrine into operational standards capable of direct judicial, regulatory, and market application. Table 32 establishes enforceable jurisdictional boundaries between regulatory authorities, preventing doctrinal overreach while preserving statutory integrity. Table 33 is intentionally constructed as a *protective infrastructure artifact* for the decentralized finance (DeFi) community itself. It is designed to function as a safety checklist — not as a surveillance device — providing builders, developers, and market participants with a clear, intelligible framework to identify and avoid conduct that would inadvertently transform experimental systems into unregistered securities environments. Collectively, these tables operate as evidentiary controls, reducing ambiguity, preventing accidental noncompliance, and stabilizing the interpretive environment in which decentralized systems evolve.

Title	Description	Page
<u>Table 31. Control-Based Disclosure Trigger Matrix (Non-Corporate Assets)</u>	Provides a structured matrix identifying the precise control conditions, managerial touchpoints, and operational thresholds that trigger mandatory disclosure obligations for decentralized, non-corporate digital assets. Designed to align with SEC/CFTC jurisdictional standards and post- <i>Chevron</i> administrative analysis.	580
<u>Table 32. Jurisdictional Boundary Matrix</u>	Establishes the doctrinally coherent boundaries between SEC, CFTC, Treasury, and state-level authorities through functional, architecture-based tests rather than issuer-intent or nomenclature-based claims. Serves as a unified federal classification tool.	589
<u>Table 33. DeFi Classification Safety Checklist (SEC Education Tool)</u>	A practitioner-facing safety checklist that operationalizes DAC’s commodity/security heuristics into a standardized evaluative tool for regulators, developers, and compliance attorneys, ensuring accurate DeFi classification and reducing inadvertent securities exposure.	592

§IX. System-Architecture Implications

The following tables are not illustrative; they are operational. They function as evidentiary control structures that translate system-architecture realities into legally cognizable facts. In decentralized and protocol-based systems, power, governance, and risk do not appear through traditional institutional forms. They manifest through design choices, code pathways, upgrade mechanisms, and architectural dependencies. These tables render those otherwise opaque technical conditions visible to constitutional and statutory analysis. Each table is constructed to allow regulators, courts, and policymakers to trace governance authority, risk concentration, and legal consequence directly from system structure rather than narrative representation. Collectively, they form an engineering-to-law translation layer, ensuring that constitutional and statutory doctrines can be applied to technical systems without interpretive drift, technical mystification, or reliance on self-attested decentralization claims.

Title	Description	Page
<u>Table 34. Protocol Architecture Risk & Governance Translation Matrix</u>	Translates specific protocol design features into corresponding governance risks and legally recognizable control mechanisms for constitutional and statutory evaluation.	606
<u>Table 35. Doctrinal Systems–Law Interoperability Matrix</u>	Maps system-engineering design elements to doctrinal legal standards to demonstrate interoperability, compatibility, and points of constitutional friction.	610
<u>Table 36. Failure-Mode Legal Risk Matrix</u>	Identifies foreseeable technical failure modes and aligns them with corresponding legal risk categories, enforcement thresholds, and constitutional consequence pathways.	612

§X. Judicial Interpretive Compatibility in a Post-Chevron Framework

The tables in this section are not reference aids; they are evidentiary control instruments. Each table is designed to harden the Doctrine of Anchored Decentralization against adversarial interpretation, academic destabilization, and legislative mischaracterization. They function as structured rebuttal engines—mapping statutory authority to defined terms, pre-constructing responses to foreseeable legal challenges, and converting abstract constitutional defenses into operational artifacts usable by courts, clerks, counsel, and legislators. Collectively, these tables form a defensive superstructure that preserves coherence under cross-examination, prevents interpretive drift, and ensures that DAC remains legible, defensible, and executable within a post-Chevron constitutional environment. They do not persuade; *they preempt*.

Title	Description	Page
<u>Table 37. Glossary to Statute Mapping Matrix</u>	Maps defined DAC terms directly to controlling statutory authorities to ensure terminological precision and prevent interpretive drift in judicial and legislative use.	624
<u>Table 38. Adversarial Argument → Doctrinal Rebuttal Map</u>	Provides structured, pre-formulated rebuttals to common adversarial legal arguments against DAC principles, designed for courtroom and administrative defense use.	633
<u>Table 39. Law Review / Academic Critique → Preemptive Counter Matrix</u>	Anticipates scholarly and academic critiques of DAC and supplies doctrinally grounded responses suitable for amicus briefing and legislative record insertion.	635
<u>Table 40. Legislative Counsel Objection → Floor-Defense Map</u>	Translates common legislative drafting objections into floor-ready constitutional defenses for use in committee hearings and congressional debate.	637

§XI. Commerce, Delegation, & The Limits of Algorithmic Authority

These tables function as statutory and constitutional alignment instruments rather than merely illustrative summaries. They are constructed to operationalize the relationship between technical language and controlling law, ensuring that emerging digital terminology is traceable to binding statutory text and judicial precedent. Each table serves as an evidentiary control surface, allowing courts, legislators, and counsel to move directly from technological description to constitutional and statutory grounding without interpretive drift or semantic substitution.

Together, these matrices create a structured pathway of legal verification. They translate decentralized system concepts into doctrines recognizable under federal law, anchor blockchain terminology to established constitutional constraints, and expose functional misalignments that would otherwise remain obscured by technical abstraction. In this way, the tables are not explanatory aids, but legal infrastructure designed to preserve jurisdictional clarity, judicial consistency, and constitutional supremacy in the classification of digital economic systems.

Title	Description	Page
<u>Table 41. Glossary Term → Statute / Case Crosswalk</u>	Maps each defined doctrinal term to its controlling statutory provisions and corresponding Supreme Court or federal appellate precedents, ensuring terminological precision and jurisprudential consistency across DAC’s constitutional analysis.	657
<u>Table 42. DeFi Plain-Language Statutory Translation Matrix</u>	Translates complex statutory provisions (SEC, CFTC, Treasury, Bank Secrecy Act, and related authorities) into standardized, plain-language explanations for DeFi developers, regulators, and legislative counsel—bridging technical and legal domains.	662
<u>Table 43. Blockchain Term → Constitutional Risk Matrix</u>	Identifies constitutional exposure points (Commerce Clause, Non-Delegation Doctrine, Due Process, Major Questions Doctrine) associated with common blockchain terms, clarifying where linguistic imprecision may trigger federal constitutional scrutiny.	665
<u>Table 44. Functional–Constitutional Alignment Matrix</u>	Aligns functional blockchain operations with constitutional doctrines to evaluate whether specific activities fall within or exceed permissible federal regulatory authority, providing a unified test for congressional, judicial, and administrative use.	670

§XII. The Doctrinal Synthesis

These tables are designed as doctrinal enforcement and institutional readiness instruments rather than descriptive summaries. Each table functions as an operational control surface that translates abstract constitutional doctrine into evaluative criteria usable by courts, regulators, and legislative counsel. The matrices are structured to expose disqualifying centralization, validate chains of consent, and model escalating enforcement pathways, thereby transforming theoretical standards into testable, auditable legal mechanics.

Collectively, these instruments create a readiness framework for institutional adoption. They allow judicial bodies to assess whether constitutional thresholds have been satisfied, enable enforcement agencies to calibrate risk in a structured and non-arbitrary manner, and provide Congress with a systematic mechanism for codification. In this way, the tables do not merely organize information; they harden doctrine into institutional architecture, ensuring that legal standards can be executed consistently across judicial, regulatory, and legislative environments.

Title	Description	Page
<u>Table 45. Centralization Disqualification Matrix (Phase One)</u>	Establishes the initial threshold tests that automatically disqualify an architecture from asserting decentralization where managerial, operational, or governance concentrations exceed constitutionally permissible limits.	679
<u>Table 46. Centralization Disqualification Matrix (Phase Two)</u>	Provides the secondary, fine-grained evaluative criteria for determining subtle or emergent centralization patterns that trigger heightened regulatory scrutiny under DAC.	685
<u>Table 47. Chain of Consent Validation Matrix</u>	Outlines the evidentiary standards and procedural logic required to confirm that every system action derives from a constitutionally valid chain of user, operator, or governance consent.	687
<u>Table 48. Judicial Adoption Pathways Matrix</u>	Maps the doctrinal pathways through which federal courts can incorporate DAC's tests into existing jurisprudence without contravening constitutional limits or creating new regulatory authorities.	689
<u>Table 49. Enforcement Risk Escalation Pathways</u>	Identifies how specific architectural failures or centralized behaviors escalate enforcement exposure across SEC, CFTC, Treasury, and DOJ jurisdictions.	691
<u>Table 50. Congressional Codification Readiness Matrix</u>	Evaluates the statutory compatibility, constitutional soundness, and legislative implementability of each DAC test to support direct congressional codification.	692

List of Evidentiary Artifacts (Empirical Record for Statutory Constraint Analysis)

[\(Return to TOC\)](#)

The materials contained within this Evidentiary Artifacts section are not illustrative in character. They function as empirical and structural records establishing the real-world operating conditions within which the Doctrine of Anchored Decentralization (DAC) is constructed.

In conventional legislative drafting, figures and tables are often treated as explanatory aids. In this framework, they are treated as *structural evidence* — mapping constitutional, economic, and institutional constraints that law must acknowledge rather than override.

Figures 1, 2, and 3, together with the accompanying doctrinal tables, establish the legal and technical differentiation mechanisms required to distinguish commodities from securities under United States constitutional and statutory law. These materials operationalize jurisprudential thresholds into testable structural criteria. They constitute the classification architecture upon which lawful digital-market regulation must be built.

Exhibits A, B, and C serve a distinct but complementary function. These artifacts document longitudinal fiscal and institutional conditions demonstrating that the United States now operates within a structurally constrained macroeconomic environment. From a continuity-of-government perspective, these empirical records establish the systemic conditions that necessitate statutory architectures capable of preserving lawful market function under elevated stress.

Taken together, these artifacts *do not direct outcomes*. They define *constraints*. They establish the boundary conditions within which Congress, regulators, and courts must operate. DAC is therefore not presented as a discretionary preference, but as an institutional response crafted to remain coherent within the constitutional, economic, and operational realities reflected in the evidentiary record.

Appendix A — Constitutional and Statutory Architecture for Sovereign Monetary Continuity and Market Structure

Title	Description	Page
<u>Exhibit A.</u> <u>Federal Debt</u> <u>Regime Shift</u> <u>and Shutdown</u> <u>Coupling (1980–2025)</u>	This exhibit documents the longitudinal migration of United States gross federal debt from a cyclical accrual environment into a structurally elevated debt regime, overlaid with observed federal appropriations-constraint events (“shutdowns”) across fiscal years 1980–2025. From a macroeconomic systems perspective, the visual coupling of shutdown frequency with debt expansion reflects a regime transition in which fiscal volatility becomes endogenous rather than episodic. The persistence of shutdown events at progressively higher debt plateaus indicates a structural binding constraint in federal fiscal architecture, rather than a transient political failure. In this context, institutional balance-sheet buffers—particularly those maintained by the Federal Reserve—function as system-level shock absorbers rather than discretionary reserves, constraining the prudential scope of statutory surplus reductions in periods of elevated systemic stress.	704
<u>Exhibit B.</u> <u>Structural</u> <u>Deficit Volatility</u> <u>and</u> <u>Appropriations</u> <u>Authority</u> <u>Discontinuity</u> <u>(1980–2025)</u>	This exhibit presents the longitudinal behavior of United States gross federal deficit dynamics alongside observed discontinuities in congressional appropriations authority over fiscal years 1980–2025. From a macroeconomic systems perspective, the data reflect a transition from bounded fiscal oscillation to chronic deficit volatility, with periods of apparent budgetary balance increasingly decoupled from lawful spending capacity under Article I, Section 9. The “surplus–shutdown” inversion observed in 2013 illustrates a structural misalignment between nominal fiscal conditions and constitutional authorization mechanisms. In such an environment, fiscal optics lose diagnostic value, and institutional stability becomes dependent upon the maintenance of balance sheet buffers and discretionary shock-absorption capacity rather than statutory surplus compression.	705

<u>Exhibit C.</u> <u>Federal Revenue</u> <u>Expansion and</u> <u>Constitutional</u> <u>Self-Restraint</u> <u>Events</u> <u>(1981–2025)</u>	This exhibit documents the longitudinal expansion of United States federal revenue relative to recurring constitutional self-restraint events, as defined by lapses in appropriations authority under Article I, Section 9, across fiscal years 1981–2025. From a macroeconomic systems perspective, the data establish that federal fiscal capacity has expanded nearly continuously, while the frequency and duration of restraint events have persisted and intensified. This divergence demonstrates that modern shutdown phenomena are not functions of revenue insufficiency, but structural expressions of constitutional constraint operating under conditions of elevated fiscal complexity. Within such an environment, institutional stability is no longer determined by aggregate revenue potential, but by the integrity and visibility of system-level buffers that preserve lawful spending boundaries during periods of fiscal and liquidity stress.	706

Table of Contents and Structural Navigation

[\(Return to TOC\)](#)

The Table of Contents is presented in a tabular format by design. This structure is not stylistic. It is methodological.

This Doctrine is constructed as a modular legal architecture. Each chapter, subsection, executive brief, glossary, and evidentiary artifact is designed to function as a self-contained unit capable of independent legislative, judicial, and regulatory review. The navigational structure reflects the architecture of the work itself.

This design aligns with the operational realities of congressional and judicial workflow. Legislative drafting, agency rulemaking, and judicial review do not proceed through linear prose. They proceed through modular consultation of discrete legal instruments. The Table of Contents is therefore constructed to serve institutional method, not authorial preference.

The Table of Contents is itself constructed as a modular navigational artifact. Each chapter-level table within the Table of Contents is designed to stand alone, to be printed independently, and to be appended directly to its corresponding chapter. This architecture is intentional. It ensures that any isolated chapter retains its full navigational context without reliance on external pagination or linear document flow. The navigational tables are not ancillary indices; they are structural components of each chapter's evidentiary completeness.

Readers are encouraged to use this navigational system actively. Chapters may be read independently. Executive briefs may be extracted and appended to legislative materials. Glossaries and tables may be cited as evidentiary artifacts. This modularity is intentional and structurally preserved throughout the Doctrine.

This modular navigational structure is symmetrical with the Executive Brief architecture. Just as each Executive Summary chapter may be appended to its corresponding doctrinal chapter as a standalone legislative instrument, the corresponding Table of Contents segment may likewise be appended to preserve internal coherence, traceability, and auditability. This structure is designed to protect against interpretive fracture, misquotation, and legal drift when chapters are circulated independently within congressional, judicial, or regulatory environments.

The selection of this tabular, modular navigation framework is grounded in a single objective: *to preserve legal clarity and prevent interpretive drift*. This Doctrine does not require the reader to translate form into substance. It presents substance in a form designed to be accessed, tested, and applied directly by the institutions responsible for constitutional governance.

Foundational Materials

This preliminary section is constructed to establish the legal, scholarly, and institutional footing of the Doctrine before substantive analysis begins. Each entry functions as a structural prerequisite, not merely biographical or procedural context. Together, these materials define the authorial standing, methodological discipline, and jurisdictional seriousness with which the Doctrine is offered to Congress, courts, and regulatory institutions. The tabular structure of this section reflects its purpose: to provide immediate navigability, independent reviewability, and evidentiary clarity. This architecture allows each component to be examined, cited, or detached without compromising the integrity of the whole. The sequencing is intentional. It fixes authority before argument, method before conclusion, and constitutional posture before policy recommendation, ensuring that all subsequent chapters operate from a clearly defined legal and institutional foundation.

Title	Page
<u>Abstract</u>	3
<u>Dedication</u>	5
<u>Declaration of Intent</u>	6
<u>Authorial Standing — Qualifications, Methodological Competence, and Jurisprudential Relevance</u>	9
<u>I. Standards for Standing</u>	10
<u>II. Foundational Works Establishing Competence</u>	15
<u>Category I — Foundational Works Establishing Competence in Law</u>	15
<u>Category II — Foundational Works Establishing Competence in Critical Blockchain Infrastructure</u>	32
<u>III. Cross-Cutting Competencies Demonstrated</u>	61
<u>IV. Declaration of Method and Constraint</u>	66
<u>V. Statement of Authorial Fitness to Advise Sovereign Digital Policy</u>	71
<u>VI. Conclusion</u>	74
<u>Reader’s Methodological Orientation</u>	75
<u>Foreword</u>	130

Executive Summary for the United States Congress

This Executive Summary is designed to give Members of Congress and Committee staff a clear, structured understanding of how digital assets should be classified under existing United States law. It does not advocate for any political outcome and does not rely on technology industry narratives. Instead, it explains how constitutional principles, federal statutes, and system design determine whether a digital asset functions as a commodity, a security, or a form of sovereign monetary infrastructure. Each brief that follows is written as a standalone, one-page tool that can be directly used in hearings, drafting sessions, and oversight work. The objective is practical: to reduce legal ambiguity, prevent regulatory overreach, and give Congress a stable framework for evaluating digital-asset markets based on law rather than speculation or marketing claims.

Title	Page
<u>Executive Summary</u>	131
<u>Congressional Findings</u>	133
<u>Chapter I — Executive Brief: Doctrine of Anchored Decentralization (DAC)</u>	135
<u>Chapter II — Executive Brief: System Architecture as Constitutional Governance</u>	140
<u>Chapter II — NSC / Treasury Ultra-Condensed Brief: Why System Architecture Determines Whether a Digital Asset Can Ever Be Treated as a “Commodity”</u>	145
<u>National-Security Doctrine Insert</u>	151
<u>Chapter III — Executive Brief: Constitutional Balance and Proposed Refinement</u>	155
<u>Chapter IV — Executive Brief: Reconstructing the Legal Definition of a Digital Commodity</u>	160
<u>Chapter IV — Treasury / NSC Strategic Brief: Reconstructing “Digital Commodity” as a National Security and Sovereign Stability Function</u>	165
<u>Executive Brief — Board of Governors of the United States Federal Reserve: Autonomous Commodity Primitives (ACPs) and the Next-Generation U.S. Dollar Infrastructure</u>	168
<u>Chapter V — Executive Brief: The Relationship of Persons to Decentralized Governance Systems</u>	170
<u>Chapter VI — Executive Brief: Harvard Law Lens — Doctrinal Coherence and Constitutional Alignment</u>	174
<u>Chapter VII — Executive Brief: CFTC Lens — Jurisdictional Expansion and Enforcement Logic</u>	177
<u>Chapter VIII — Executive Brief: SEC Lens — Boundary Management and Doctrinal Friction</u>	180
<u>Chapter IX — Executive Brief: System-Architecture Implications</u>	183
<u>Chapter X — Executive Brief: Judicial Interpretive Compatibility in a Post-Chevron Framework</u>	185

<u>Chapter XI — Executive Brief: Commerce, Delegation, & The Limits of Algorithmic Authority</u>	188
<u>Chapter XII — Executive Brief: Doctrinal Synthesis: Anchoring Decentralization for Constitutional Stability</u>	190
<u>Chapter XIII — Executive Brief: The Author’s Commentary — The Chain of Consent and the Preservation of the Republic</u>	194

Part I — Foundations of Law, Economics, and System Architecture

Part I establishes the doctrinal foundation of the Doctrine of Anchored Decentralization (DAC). It reconstructs first principles of commodities law, constitutional structure, and systems architecture to create enforceable legal standards for evaluating digital economic objects.

Each chapter in Part I is organized as a defensive legal architecture and follows a uniform five-layer structure:

- (1) positive legal definition,
- (2) argument and counter-argument shielding,
- (3) policymaker translation,
- (4) evidentiary structural exhibits (tables and figures), and (5) fixed glossaries of legal terms.

These chapters are designed to function as judicially reviewable modules.

Chapter I defines the legally enforceable meaning of “commodity” in digital form and introduces Autonomous Commodity Primitives (ACPs) as a constitutionally compliant asset class, supported by formal tables, policy memoranda, and a structured decision tree under the Anchored Decentralization Test (ADT).

Chapter II translates legal requirements into system-architecture constraints and formalizes the Mutable Commodity Paradox, establishing that systems governed by discretionary human management cannot qualify as commodities under constitutional and securities jurisprudence.

Chapter III shifts the framework into constitutional adjudication, introducing justiciable standards for verifiable decentralization and judicial qualification of stateless digital architectures.

Chapter IV synthesizes commodities law, constitutional federalism, administrative limits, and technical design into a reconstructed, enforceable legal definition of a digital commodity. This chapter completes the legal foundation upon which the remainder of the Doctrine is built.

Part I functions as constitutional construction, not persuasion. All subsequent chapters depend upon the legal and structural integrity established herein.

Chapter §I. Establishing the Legally and Economically Enforceable Definition of a Commodity

Chapter I establishes the legally and economically enforceable definition of a commodity within the context of stateless digital systems. It reconstructs the statutory and constitutional foundations of commodity classification by distinguishing non-managerial economic objects from managerial instruments, and by translating these distinctions into operational doctrinal tests capable of judicial review. Through structured evidentiary tables, glossaries, and decision frameworks, the chapter converts abstract legal categories into fixed, verifiable criteria that can be applied consistently by Congress, federal agencies, and the judiciary. Its purpose is not theoretical refinement, but constitutional stabilization: to restore a coherent, enforceable boundary between commodities, securities, and sovereign monetary instruments in the digital domain.

Title	Page
<u>§I. Legal Interpretation and Juridical Context</u>	200
<u>§I.A. Commodity Exchange Act (CEA) §1a(9): Statutory Definition, Constitutional Boundaries, and Implications for Digital Assets</u>	200
<u>§I.B. The Constitutional Definition of Managerial Authority in Stateless Digital Systems</u>	203
<u>I. Managerial Authority as a Functional Legal Concept</u>	204
<u>II. Application to Digital Assets: The DAC Managerial Authority Test</u>	204
<u>III. Why This Definition Matters Under CEA §1a(9)</u>	205
<u>IV. Doctrinal Consequence for DAC</u>	206
<u>§II. Policymaker Interpretation Block</u>	206
<u>§III. Argument / Counter-Argument Shield</u>	207
<u>§IV. Historical Evolution of the Commodity Concept</u>	208
<u>Doctrinal Clarification: Behavioral Managerial Influence as “Protocol Control”</u>	210
<u>§IV.A. The Functional Equivalence Constraint: “Non-Discretionary, Non-Managerial Object”</u>	211
<u>§IV.B. Judicial Construction: “Commodity” vs. “Managerial Instrument”</u>	213
<u>§V. Policy Interpretation Block — For U.S. Legislators and Agency Counsel</u>	215
<u>§VI. Argument / Counter-Argument Shield</u>	216
<u>§VII. Implications for Digital Assets Under the CEA, Federal Securities Doctrine, and Constitutional Interpretation</u>	218
<u>§VII.A. Policy Interpretation Block (For Congressional and Regulatory Use)</u>	220
<u>§VII.B. Argument / Counter-Argument Shield (For Congressional Defense and Public Hearings)</u>	221

<u>§VIII. Historical Evolution of the Commodity Concept</u>	232
<u>§VIII.A. Era 1 — Physical Commodities (1936–1970): Non-Managerial Objects of Intrinsic Economic Utility</u>	232
<u>§VIII.B. Era 2 — Financial Derivatives (1970–2008): Standardization Without Managerial Control</u>	233
<u>§VIII.C. Era 3 — Digital Primitives (2009–Present): Network-Based Objects and the Managerial Discretion Problem</u>	233
<u>§VIII.D. Evolution of Foundational Attributes</u>	234
<u>§VIII.E. Doctrinal Comparison: Barter, Commodities, and Monetary Exchange Under Federal Law</u>	235
<u>§VIII.E.1. Barter as Commodity Logic under the CEA</u>	235
<u>§VIII.E.2. Monetary Transactions as Institutional Price Logic</u>	236
<u>§VIII.E.3. Why This Distinction Matters for Digital-Asset Classification</u>	237
<u>§VIII.E.4. The Harvard Law–Harvard Economics Synthesis</u>	238
<u>§VIII.E.5. Contractual Instability and the False Equivalence of Digital Payment and Barter</u>	240
<u>§VIII.E.5.1. The Requirement of Mutual Assent in Barter Transactions</u>	240
<u>§VIII.E.5.2. Market Volatility and the Introduction of Index Risk</u>	241
<u>§VIII.E.5.3. Price Indeterminacy and the Absence of a Unit of Account</u>	241
<u>§VIII.E.5.4. Reliance on External Market Forces and the Drift Toward Securities Logic</u>	242
<u>§VIII.E.5.5. False Equivalence Between Digital Payment and Barter</u>	242
<u>§VIII.E.5.6. Implications for DAC and Federal Classification</u>	243
<u>§VIII.E.6. Policy Implications and Congressional Guidance</u>	243
<u>§VIII.E.6.1. Clarifying Congressional Intent Under the Commodity Exchange Act</u>	243
<u>§VIII.E.6.2. Preventing Administrative Overreach: Guidance for CFTC and SEC</u>	244
<u>§VIII.E.6.3. Stabilizing Contract Law and Consumer Protection Regimes</u>	244
<u>§VIII.E.6.4. International Alignment and Treaty Law Considerations</u>	245
<u>§VIII.E.6.5. Congressional Mandate for Digital-Asset Taxonomy Reform</u>	245
<u>§VIII.E.6.6. The Federal Trust Responsibility to Prevent Misclassification</u>	246
<u>§VIII.E.7. Digital Commodity Representation Doctrine</u>	246
<u>§VIII.E.7.1. Federal Requirement: A Digital Commodity Must Correspond to a Federally Verifiable Unit of Economic Reality</u>	247
<u>§VIII.E.7.2. The Attestation Principle: Unique, Immutable, and Biologically or Physically Grounded Identity</u>	247
<u>§VIII.E.7.3. Federal Reporting Lineage: The Audit Chain</u>	247

<u>§VIII.E.7.4. SEC Antifraud Compatibility: Material Verifiability</u>	248
<u>§VIII.E.7.5. CFTC Commodity Integrity: Market Surveillance and Unit-Specificity</u>	248
<u>§VIII.E.7.6. Harvard Law Doctrine of Regulatory Sufficiency</u>	249
<u>§VIII.E.7.7. Federal Commodity Marking Precedent</u>	249
<u>§VIII.E.7.7.1. Federal Mandate: Truthful, Verifiable Marks</u>	250
<u>§VIII.E.7.7.2. Administrative Enforcement: CBP, FTC, and FBI Oversight</u>	250
<u>§VIII.E.7.7.3. Legal Theory: Federally Recognized Identity</u>	251
<u>§VIII.E.7.7.4. Non-Fungibility as a Federal Commodity Requirement</u>	251
<u>§VIII.E.7.7.5. Precedential Continuity: Physical Marking to Digital Attestation</u>	252
<u>§VIII.E.7.7.6. Doctrinal Principle Derived From the Stamping Act</u>	252
<u>§VIII.E.7.7.7. Doctrinal Implication for Congress and DAC</u>	253
<u>§VIII.E.7.8. Doctrinal Synthesis and Congressional Rule</u>	253
<u>§VIII.E.7.9. Doctrinal Takeaway for Congressional Counsel</u>	255
<u>§VIII.E.7.9.1. Core Congressional Rule</u>	255
<u>§VIII.E.7.9.2. Argument / Counter-Argument Framework</u>	255
<u>§VIII.E.7.9.3. Guidance for Policymakers and Committee Counsel</u>	257
<u>§VIII.E.7.9.4. Doctrinal Conclusion</u>	258
<u>§VIII.E.7.10. Constitutional Barriers to Category Collapse in Digital Asset Law</u>	259
<u>§E.8 Autonomous Commodity Primitives (ACPs) as Ledger-Anchored Commodity Documentation</u>	260
<u>§VIII.E.8.1. Doctrinal Necessity: Why Digital Commodity Documentation Requires a New Legal Category</u>	260
<u>A. NFTs Cannot Serve as Commodity Documentation</u>	260
<u>B. The Treasury Problem: Lack of Real-Time Commodity Documentation</u>	260
<u>§VIII.E.8.2. Definition: Autonomous Commodity Primitive (ACP) — Formal Definition</u>	261
<u>A. Formal Definition</u>	261
<u>B. Core Attributes</u>	261
<u>§VIII.E.8.3. Legal Foundations: ACPs as Digital Documents of Title</u>	262
<u>A. UCC Article 7 Alignment</u>	262
<u>B. Commodity Exchange Act Alignment</u>	262
<u>C. SCOTUS Compatibility</u>	263

<u>§VIII.E.8.4. Economic Foundations: Harvard Economics Perspective</u>	263
<u>A. ACPs Restore Commodity Price Integrity</u>	263
<u>B. ACPs Enable Real-Time Treasury-Grade Reserve Accounting</u>	263
<u>§VIII.E.8.5. Treasury Architecture: ACPs as the Foundation of ABDC</u>	264
<u>A. Why ABDC Requires ACP</u>	264
<u>B. ABDC, FRAFI, and ACP Integration</u>	264
<u>C. Why NFTs Cannot Serve This Role</u>	264
<u>§VIII.E.8.6. Doctrinal Conclusion: ACPs as the Only Constitutionally Viable Digital Commodity Instrument</u>	265
<u>A. The Commodity Rule</u>	265
<u>B. ACPs Satisfy Federal Commodity Doctrine</u>	265
<u>C. ACPs Restore the Constitutional Commodity Doctrine</u>	265
<u>§VIII.E.8.7. Policymaker Interpretation Block: Why ACPs Matter for U.S. Law, Markets, and Treasury Stability</u>	266
<u>§VIII.E.8.8. Policymaker Summary</u>	266
<u>§VIII.E.8.9. Argument / Counter-Argument Shield for ACPs</u>	270
<u>U.S. Treasury Department Policy Memorandum: ACPs as Next-Generation Instruments</u>	277
<u>Committee Report Explanation — Committee on Banking, Housing, and Urban Affairs</u>	281
<u>§VIII.E.9. Statutory Text for ACP Recognition</u>	284
<u>§VIII.E.9.1. Treasury–OCC Joint Commentary</u>	290
<u>§VIII.E.9.2. Alignment With Treasury and OCC Treatment of Warehouse Receipts</u>	290
<u>§VIII.E.9.3. ACPs and ABDCs</u>	291
<u>§VIII.E.9.4. No Expansion of Private-Sector Monetary Authority</u>	291
<u>§VIII.E.9.5. Supervisory Expectations for Banks, Trusts, and Custodians</u>	292
<u>§VIII.E.9.6. Fraud Prevention, Auditability, and Traceability</u>	292
<u>§VIII.E.9.7. Compatibility With Federal Law and Constitutional Structure</u>	293
<u>§VIII.E.10. Plain-Language Policymaker Summary</u>	293
<u>§IV. The Functional Equivalence Doctrine — Origins, Use, and Constitutional Defects</u>	295
<u>§IV.A. Original Regulatory Use</u>	295
<u>§IV.B. Misapplied Contemporary Usage</u>	296
<u>§IV.C. Constitutional Defects</u>	297

<u>§IV.D. Doctrinal Conclusion</u>	298
<u>§IV.E. Policy Interpretation Block — Limits of Functional Equivalence</u>	298
<u>§IV.F. Argument / Counter-Argument Shield</u>	299
<u>§V. Judicial Construction Trajectory</u>	303
<u>§V.A. Early Era: Economic-Realities Doctrine</u>	303
<u>§V.B. Modern Era: Textualist Constraint</u>	303
<u>§V.C. Slack v. Pirani (2023)</u>	304
<u>§V.D. Judicial Implications for Digital Assets</u>	304
<u>§V.E. Doctrinal Result</u>	305
<u>§V.F. Policy Interpretation Block</u>	305
<u>§V.G. Argument / Counter-Argument Shield</u>	306
<u>§V.H. Policymaker Interpretation — Plain English Translation</u>	307
<u>§VI. Core Arguments Introduced in This Section</u>	310
<u>§VII. Arguments and Counter-Arguments</u>	314
<u>§VIII. DAC Alignment — How This Section Integrates into the Doctrine</u>	317
<u>Glossary of Terms — §I. Establishing the Legally and Economically Enforceable Definition of a Commodity</u>	326
<u>References</u>	361

§II. System-Architecture Implications by Law and Constitutional Design

Chapter II examines the legal and constitutional consequences of system architecture in stateless digital networks. Where the preceding chapter establishes definitional legal thresholds, this chapter evaluates how technical design choices operate as de facto governance structures under United States law. It demonstrates that architecture is not a neutral technical decision but a constitutional act, capable of triggering or foreclosing commodity classification through the presence of managerial pathways, governance mechanisms, and sovereign concentration. Through structured doctrinal analysis, this chapter converts system design into justiciable constitutional evidence, establishing enforceable standards by which Congress, regulators, and courts may determine when a digital system remains a non-managerial commodity and when it collapses into managed infrastructure subject to securities, administrative, or national-security law.

Title	Page
<u>§I. Commodity as a Non-Managerial Object — Legal and Architectural Requirements</u>	371
<u>§I.A. The Constitutional Requirement of Non-Management</u>	371
<u>§I.B. Authorial Abandonment or Neutral Authorship</u>	372
<u>§I.C. Distinction Between “Deployed Code” and “Governed Code”</u>	373
<u>§II. Distributed Systems Requirement — When Architecture Becomes Governance</u>	374
<u>§II.A. Validator Consensus as De Facto Governance</u>	374
<u>§II.B. Managerial Influence through Protocol Upgrades, Repositories, and Communications</u>	375
<u>§II.B.1. Harvard Administrative-Law Analogy: Protocol Governance = Rulemaking Power</u>	376
<u>§II.B.2. DAC Doctrinal Rule</u>	377
<u>§III. State-Actor Capture and the Limits of Commodity Classification</u>	377
<u>§III.A. The Commodity Boundary Is Structural, Not Geographic</u>	378
<u>§III.B. State-Actor Hash-Power Concentration as Managerial Authority</u>	379
<u>§III.C. Constitutional Limits: Sovereign Power Cannot Be Outsourced</u>	381
<u>§III.D. State-Actor Capture Creates a Managed Network, Not a Commodity</u>	383
<u>§III.E. DAC Doctrinal Rule — Sovereign Concentration as Per Se Managerial Control</u>	386
<u>§III.F. National-Security Alignment</u>	387
<u>National-Security Doctrine Insert</u>	391
<u>1. The Crypto-Based Slice of Global Terror Financing</u>	391
<u>2. ABDCs and the Multi-Decade Attrition of Crypto-Enabled Terror Financing</u>	391
<u>3. The Hard-Cost Reality of Terrorism: Catastrophic Impact at Minimal Price</u>	392
<u>4. Expected Prevention Value: A Quantifiable National-Security Outcome</u>	393
<u>5. Sovereign-Agnostic Deployability</u>	394
<u>National-Security Insert Conclusion</u>	394

<u>§III.G. Network Architecture as Governance — The “Architecture = Law” Principle</u>	395
<u>§III.H. Technical Immutability vs. Legal Immutability</u>	397
<u>§III.I. Policymaker Interpretation — Plain English Translation</u>	400
<u>§III.J. Core Arguments Introduced in This Section</u>	401
<u>§III.K. Arguments and Counter-Arguments</u>	402
<u>§III.L. DAC Alignment — The Constitutional Architecture of System Design</u>	404
<u>Glossary of Terms — §II. System-Architecture Implications by Law and Constitutional Design</u>	410
<u>Author’s Reflection — On Building, Loss, and the Genesis of Doctrine</u>	423
<u>Annex I — Constructive Notice to the Decentralized Systems Community</u>	425
<u>References</u>	428

§III. Constitutional Balance and Proposed Refinement

Chapter III examines the constitutional limits within which digital systems must operate to be lawfully recognized under United States law. It shifts the analytical frame from statutory interpretation and system design to constitutional permissibility, focusing on the constraints imposed by the Commerce Clause, the Non-Delegation Doctrine, and Due Process. This chapter establishes that decentralization is not presumed but must be structurally proven, that consent in distributed systems must be traceable rather than implied, and that algorithmic governance must satisfy constitutional requirements of predictability and intelligibility. Through the development of verifiable standards and evidentiary frameworks, the chapter converts constitutional doctrine into operational tests capable of judicial enforcement, refining the legal boundary between lawful commodities and systems that fall within securities or administrative jurisdiction.

Title	Page
<u>§I. Commerce Clause Analysis — Digital Assets and the Constitutional Nexus Problem</u>	433
<u>§I.A. The Nexus Requirement and the Collapse of Territorial Anchors</u>	433
<u>§I.B. The Jurisdictional Vacuum in “Stateless” Architectures</u>	434
<u>§II. The Chain of Consent Doctrine</u>	435
<u>§II.A. First Principle</u>	435
<u>§II.B. The Nature of Consent in Distributed Systems</u>	436
<u>§II.C. The Three Layers of the Chain of Consent</u>	436
<u>§II.D. Consent vs. Participation</u>	437
<u>§II.E. Breakage Conditions of the Chain</u>	438
<u>§II.F. Relationship to Commodity vs. Security Classification</u>	438
<u>§II.G. The DAC Consent Rule</u>	439
<u>§III. Non-Delegation Doctrine — Algorithmic Authority as Unconstitutional Delegation</u>	440
<u>§III.A. Protocol-Level Governance as Quasi-Legislative Power</u>	440
<u>§III.B. Why Algorithms Cannot Wield Quasi-Legislative Power</u>	441
<u>§IV. Due Process & Predictability Requirements — Constitutional Constraints on Algorithmic Systems</u>	442
<u>§IV.A. Void-for-Vagueness Doctrine in Algorithmic Systems</u>	442
<u>§IV.B. Predictability Requirements for Economic Actors</u>	443
<u>§V. The Constitutional Burden of Decentralization Claims</u>	444
<u>§V.A. Burden of Proof Rests on the Proponent</u>	444
<u>§V.B. “Verifiable Decentralization” vs. “Self-Attested Decentralization”</u>	445

<u>§VI. Policymaker Interpretation — Plain English Translation</u>	446
<u>§VII. Core Arguments Introduced in This Section</u>	449
<u>§VII.A. Commerce Clause Jurisdiction Collapses When Networks Claim to Be “Stateless”</u>	449
<u>§VII.B. Delegating Governance to Protocols or Token Voters Violates the Non-Delegation Doctrine</u>	450
<u>§VII.C. Algorithmic Rulemaking Violates Due Process Unless Predictable</u>	450
<u>§VII.D. Burden of Proving Decentralization Rests on the Proponent</u>	451
<u>§VII.E. DAC Distinguishes Verifiable from Self-Attested Decentralization</u>	451
<u>§VIII. Arguments and Counter-Arguments</u>	452
<u>§IX. DAC Alignment — The Constitutional Refinement Pillar</u>	455
<u>Glossary of Terms — §III. Constitutional Balance and Proposed Refinement</u>	461
<u>References</u>	471

§IV. Doctrinal Synthesis — Reconstructing the Legal Definition of a Digital Commodity

Chapter IV performs the core reconstructive function of this Doctrine by translating constitutional constraint, statutory text, and systems architecture into a unified, enforceable legal definition of a digital commodity. Where prior chapters establish the limits of existing interpretation, this chapter formalizes a replacement standard grounded in verifiable decentralization, the absence of managerial influence, and constitutional separation of powers. It restores jurisdictional boundaries between the CFTC, SEC, and Congress without expanding agency authority, and it operationalizes the Doctrine of Anchored Decentralization as a remedial structure rather than a policy preference. This chapter is designed not as advocacy but as doctrinal repair, furnishing Congress, regulators, and courts with a stable, testable standard capable of surviving textualist scrutiny and future technological evolution.

Title	Page
<u>§IV.A. Reconstructed Commodity Definition — The DAC Standard</u>	475
<u>§IV.A.1. The Doctrinal Failure of the Traditional Commodity Definition</u>	475
<u>§IV.A.2. The DAC Definition of a Digital Commodity</u>	475
<u>§IV.A.2.1. Legal Neutrality</u>	476
<u>§IV.A.2.2. Economic Neutrality</u>	476
<u>§IV.A.2.3. Technical Neutrality</u>	476
<u>§IV.A.2.4. Behavioral Neutrality</u>	477
<u>§IV.A.3. Constitutional Consequence of the DAC Commodity Standard</u>	477
<u>§IV.B. Constitutional Test — Verifiable Decentralization and Absence of Managerial Shadow</u>	478
<u>§IV.B.1. Decentralization as a Constitutional Test, Not a Technical Claim</u>	478
<u>§IV.B.2. Verifiable Decentralization</u>	478
<u>§IV.B.3. Clear Absence of the Managerial Shadow</u>	480
<u>§IV.B.4. Doctrinal Consequence under DAC</u>	481
<u>§IV.C. Implications for Federal Jurisdiction — Restoring Proper Boundaries</u>	481
<u>§IV.C.1. CFTC Authority Clarified (Not Expanded)</u>	481
<u>§IV.C.2. SEC Boundary Restored to Its Original Purpose</u>	482
<u>§IV.C.3. Doctrinal Effect of Restored Boundaries</u>	483
<u>§IV.D. Preview of DAC — Anchored Decentralization as the Constitutional Remedy</u>	483
<u>§IV.D.1. The Anchored Decentralization Doctrine</u>	483
<u>§IV.D.2. Why DAC Functions as the Constitutional Remedy</u>	484

<u>§IV.D.3. DAC as Constitutional Restoration, Not Expansion</u>	486
<u>§IV.E. Policymaker Interpretation — Plain-English Translation</u>	486
<u>§IV.E.1. How This Shields Congress</u>	487
<u>§IV.E.2. The Congressional Advantage Under DAC</u>	487
<u>§IV.F. Core Arguments Introduced in This Section</u>	488
<u>§IV.F.1. The Commodity Definition Must Be Reconstructed to Reflect Constitutional Requirements</u>	488
<u>§IV.F.2. Verifiable Decentralization — Not Marketing — Determines Legal Classification</u>	488
<u>§IV.F.3. Managerial Shadows Are Dispositive Evidence of Securities Characteristics</u>	489
<u>§IV.F.4. CFTC Jurisdiction Is Not Universal</u>	489
<u>§IV.F.5. SEC Jurisdiction Is Clarified Through Restoration of the “Managerial Effort” Doctrine</u>	490
<u>§IV.F.6. DAC as the Constitutional Remedy for Regulatory Collapse</u>	490
<u>§IV.G. Arguments and Counter-Arguments</u>	491
<u>§IV.G.1. Congressional Utility of This Section</u>	493
<u>§IV.H. Doctrinal Summary for Integration into DAC</u>	493
<u>§IV.H.1. Reconstruction of the Commodity Core as Constitutional Doctrine</u>	494
<u>§IV.H.2. Interlocking Figure Architecture as Executable Constitutional Logic</u>	494
<u>§IV.H.3. Glossary Framework as a Judicial Control Surface</u>	494
<u>§IV.H.4. Doctrinal Effects of the Synthesized Standard</u>	495
<u>§IV.H.5. Doctrinal Statement of Record</u>	496
<u>§IV.H.6. Structural Transition to the Remainder of DAC</u>	496
<u>§IV. Glossary of Terms — Doctrinal Synthesis — Reconstructing the Legal Definition of a Digital Commodity</u>	497
<u>References</u>	505

Part II — Persons, Roles, and Power within Decentralized Systems

Part II of this Doctrine constructs a constitutional framework for identifying, tracing, and regulating power, authority, and legal responsibility inside decentralized systems. It proceeds from a central legal premise: decentralization does not eliminate power, but relocates it. Where traditional legal systems relied upon visible institutions, formal delegation, and traceable chains of command, decentralized architectures encode equivalent forms of authority into protocol design, economic incentives, narrative control, and technical governance. The purpose of this Part is to render those otherwise obscured power structures legible to constitutional law, transforming architectural behavior into justiciable legal fact.

This Part is not organized as a collection of competing perspectives, but as a unified interpretive architecture expressed through discipline-specific lenses. The Harvard Law lens supplies the constitutional spine. The CFTC lens introduces enforcement realism regarding how markets are policed in practice. The SEC lens examines boundary stress, category drift, and doctrinal fracture. Systems-engineering analysis translates legal authority into structural and architectural realities, while judicial-compatibility framing ensures coherence with post-Chevron constitutional restraint. These perspectives do not diverge; they interlock to form a single operational grammar by which concealed management, implicit delegation, and structural control can be identified and measured.

Together, the chapters and glossaries of Part II function as a continuous constitutional instrument. Glossaries are elevated from reference tools to doctrinal infrastructure, operating as translation layers between law and technology. Each chapter both advances the analysis and cross-locks with the others, forming a closed system of interpretation capable of diagnosing authority, enforcing accountability, and preserving constitutional legitimacy in systems expressly designed to obscure it. Part II should therefore be read not as descriptive commentary, but as a lawful architecture for governing systems that present themselves as stateless.

§V. The Relationship of Persons to Decentralized Governance Systems

Chapter V examines how legal personhood, agency, and responsibility persist inside systems that present themselves as decentralized or leaderless. It rejects the premise that decentralization dissolves human control, instead demonstrating that authority is relocated into roles, incentives, repositories, and patterns of coordination. This chapter establishes a structured framework for identifying when individuals or collectives exercise discretionary power, how implied agency arises through technical and behavioral influence, and when such influence becomes dispositive under federal law. Through the development of controlling doctrines and traceability standards, the chapter converts otherwise obscured human involvement into justiciable facts, restoring constitutional accountability to systems designed to mask authorship and managerial control.

Title	Page
<u>§I.A. Ontological Status of Participants</u>	509
<u>§I.A.1. Users</u>	509
<u>§I.A.2. Miners and Validators</u>	510
<u>§I.A.3. Oracles</u>	510
<u>§I.A.4. DAO Members</u>	510
<u>§I.A.5. Developers and Repository Maintainers</u>	511
<u>§I.A.6. DAC Governing Principle (Controlling Doctrine)</u>	511
<u>§I.B. Implied Agency Through Coordination</u>	511
<u>§I.C. Agency, Authority, and Attribution</u>	513
<u>§I.C.1. Does the actor perform discretionary actions?</u>	513
<u>§I.C.2. Does the actor’s conduct materially alter system outcomes?</u>	513
<u>§I.C.3. Would the system behave differently absent this person’s conduct?</u>	514
<u>§I.C.4. Legal Consequence (Dispositive Rule)</u>	514
<u>§I.D. The Founder Problem</u>	514
<u>§I.D.1. Foundational Communications</u>	515
<u>§I.D.2. Persistent Influence Analysis (DAC Test)</u>	515
<u>§I.D.3. Managerial Nexus Through Repositories</u>	516
<u>§I.D.4. DAC Controlling Rule (Founder Doctrine)</u>	516
<u>§I.E. The Triad of Decentralization — Ontological, Behavioral, Jurisdictional</u>	516
<u>§I.E.1. Ontological Decentralization — Form</u>	517
<u>§I.E.2. Behavioral Decentralization — Incentives and Control</u>	517

<u>§I.E.3. Jurisdictional Decentralization — Locationlessness</u>	518
<u>§I.E.4. DAC Controlling Rule (Triad Doctrine)</u>	518
<u>§I.F. Policymaker Interpretation (Plain-English)</u>	518
<u>§I.G. Core Arguments Introduced in This Section</u>	520
<u>§I.H. Arguments and Counter-Arguments</u>	521
<u>§I.H.1. Legislative Protective Principle</u>	522
<u>§I.I. Doctrinal Summary — Chapter V</u>	522
<u>Glossary of Terms — The Relationship of Persons to Decentralized Governance Systems</u>	525
<u>References</u>	534

§VI. Harvard Law Lens — Doctrinal Coherence and Constitutional Alignment

This chapter is designed to function as the constitutional spine of the Doctrine of Anchored Decentralization. It applies Harvard Law’s methodological discipline—textualism, structuralism, and institutional competence—to the problem of stateless digital systems. Rather than assuming that novel technologies exist outside constitutional order, this section treats decentralized architectures as legally accountable structures that must conform to Article-level constraints, separation-of-powers doctrine, and due-process guarantees. The subsections are organized to move from interpretive authority (post-Chevron jurisprudence), to standing and rights constraints, and finally into structural tests of coherence that determine whether a system can lawfully exist within the American constitutional framework. This Table of Contents is therefore not navigational alone; it functions as a doctrinal map, allowing courts, legislators, and regulators to trace constitutional validity as a structured, step-by-step inquiry rather than a discretionary judgment.

Title	Page
<u>§I. Administrative Law Applied to Digital Systems</u>	537
<u>§I.A. The Post-Chevron Landscape — Courts Reclaim Interpretive Primacy</u>	537
<u>§I.B. The New Textualism — Narrowing of Agency Discretion</u>	538
<u>§I.C. Standing, Injury, and Redressability in Decentralized Systems</u>	538
<u>§I.D. Fundamental Rights Constraints</u>	540
<u>§I.E. Policymaker Interpretation (Plain-English)</u>	543
<u>§I.F. Core Arguments Introduced in This Section</u>	543
<u>§I.G. Arguments and Counter-Arguments</u>	544
<u>§I.I. Harvard Law Lens — Doctrinal Coherence and Constitutional Alignment</u>	545
<u>§I.A. Doctrinal Coherence as a Constitutional Imperative</u>	545
<u>§I.B. Structural Alignment with Separation of Powers</u>	545
<u>§I.C. Constitutional Architecture as the Controlling Lens</u>	546
<u>§I.D. Alignment with Due-Process and Libertarian Structural Guarantees</u>	546
<u>§I.E. The Harvard Lens Applied: Why DAC Survives Constitutional Review</u>	546
<u>Glossary of Terms — Harvard Law Lens: Doctrinal Coherence and Constitutional Alignment</u>	548
<u>References</u>	560

§VII. CFTC Lens — Jurisdictional Expansion and Enforcement Logic

From the perspective of the Commodity Futures Trading Commission, this chapter confronts a structural tension now embedded in modern markets: the assertion of decentralization where managerial power, economic coordination, and enforcement risk continue to exist in practice. The purpose of this section is not to expand jurisdiction, but to restore enforceability. Where traditional commodities markets were built around identifiable exchanges, intermediaries, and actors, decentralized architectures relocate the same risks into protocol design, incentive structures, and opaque coordination layers. This chapter examines how fraud, manipulation, and market integrity failures manifest when no visible “market” exists, yet investors and participants remain exposed to systemic harm. It re-anchors enforcement logic in observable conduct rather than marketing claims of decentralization, providing Congress and regulators with a structurally faithful framework for distinguishing between lawful commodity-like behavior and architecturally concealed managerial control. The result is a regulatory lens grounded not in expansion of power, but in preservation of statutory purpose: protecting market integrity where markets function in fact, regardless of how they are labeled in theory.

Title	Page
<u>§I. Commodity Supervision Without Commodities</u>	561
<u>§II. Fraud, Manipulation, and the “Managerial Shadow”</u>	562
<u>§III. Market Integrity in the Absence of a Market</u>	563
<u>§IV. Decentralization Claims vs. Enforcement Necessity</u>	564
<u>§V. Policymaker Interpretation (Plain English)</u>	564
<u>§VI. Arguments and Counter-Arguments</u>	565
<u>§VI.1. Congressional Defensive Utility</u>	566
<u>§VII. Doctrinal Summary — CFTC Lens: Jurisdictional Expansion and Enforcement Logic</u>	567
<u>Glossary of Terms — CFTC Lens — Jurisdictional Expansion and Enforcement Logic</u>	568
<u>References</u>	576

§VIII. SEC Lens — Boundary Management and Doctrinal Friction

This chapter examines decentralized digital systems through the lens of the United States Securities and Exchange Commission’s core constitutional and statutory mandate: *the preservation of investor protection, market integrity, and truthful price discovery*. Where the CFTC lens interrogates market structure and fraud risk, the SEC lens focuses on managerial conduct, information asymmetry, and the legal consequences of reliance. The analysis proceeds from a foundational enforcement reality: the absence of a corporation does not eliminate the presence of promoters, architects, influencers, or economic gatekeepers. When economic value is shaped by the discretionary acts of identifiable persons, the securities framework is triggered as a matter of constitutional necessity, not regulatory preference.

This chapter therefore treats “boundary management” as a doctrine of constitutional hygiene. It analyzes how modern consensus mechanisms, governance tokens, promotional behavior, and delegated protocol decision-making recreate the very managerial dynamics that federal securities law was designed to regulate. The SEC lens presented here does not seek to expand jurisdiction; it restores doctrinal clarity by applying the original logic of *Howey*, *Forman*, and their progeny to systems that claim exemption through technical framing. The result is a disciplined legal method that distinguishes lawful commodity-like architectures from impermissible securities-like managerial systems based on provable structure, not narrative.

Title	Page
<u>§I. The “Efforts of Others” Clause in Consensus Models</u>	577
<u>§II. Disclosure Doctrine for Non-Corporate Assets</u>	579
<u>§III. Promotional Activity as Managerial Conduct</u>	581
<u>§IV. Delegated Governance Tokens as Unregistered Voting Securities</u>	582
<u>§V. Policymaker Translation (Plain English)</u>	584
<u>§VI. Arguments and Counter-Arguments</u>	584
<u>§VII. Volatility as a Regulatory Signal: Historical Drawdowns and the Economics of Systemic Risk</u>	585
<u>Glossary of Terms — SEC Lens: Boundary Management and Doctrinal Friction</u>	588
<u>References</u>	595

§IX. System-Architecture Implications

From an MIT systems-engineering perspective, this chapter examines how technical architecture becomes a form of legal and economic behavior rather than a neutral substrate. Distributed systems are not passive tools; they are designed environments that constrain, enable, and predict human action. When architecture determines outcomes, the design itself functions as conduct. This section translates software structure into systems-level liability by demonstrating how governance mechanisms, incentive design, and protocol geometry create foreseeable behavioral pathways that law can evaluate with the same rigor applied to physical infrastructure. The objective is not to moralize code, but to engineer accountability by treating architectural choices as measurable causal inputs capable of producing legally cognizable effects. Through this lens, DAC treats system design as a first-order governance instrument, where engineering discipline becomes inseparable from constitutional and economic consequence.

Title	Page
<u>§I. When Code Becomes Conduct</u>	596
<u>§II. Design-Based Liability</u>	597
<u>§II.A. Governance Design as Duty-Creating Conduct</u>	597
<u>§II.B. Market Manipulation by Architectural Foreseeability</u>	598
<u>§II.C. Tokenomics as Structural Misrepresentation</u>	598
<u>§II.D. The DAC Architectural Liability Rule</u>	599
<u>§III. Security Boundaries as Legal Boundaries</u>	599
<u>§III.A. Technical Architecture as Functional Legal Form</u>	599
<u>§III.B. The DAC Translation Principle</u>	600
<u>§IV. Architectural Anchoring: The Core of DAC</u>	600
<u>§V. Policymaker Translation (Plain English)</u>	601
<u>§VI. Arguments and Counter-Arguments</u>	602
<u>§VI.1. Congressional Takeaway</u>	603
<u>§VII. Closing — System-Architecture Implications</u>	603
<u>Glossary of Terms — §IX. System-Architecture Implications</u>	605
<u>References</u>	616

§X. Judicial Interpretive Compatibility in a Post-Chevron Framework

This chapter is structured to conform to the operational realities of judicial review in the post-Chevron constitutional order. The Table of Contents is designed not as a literary roadmap, but as a juridical instrument — organizing the chapter in a manner that reflects the way federal courts, and the Supreme Court of the United States in particular, evaluate constitutional questions: sequentially, structural-first, and grounded in text, history, and pre-commitment doctrines. Each section corresponds to a discrete jurisdictional or interpretive inquiry that a court must resolve before reaching the merits. The structure mirrors the Court’s disciplined method of constitutional construction, ensuring that each analytical step is isolated, reviewable, and resistant to drift.

The architecture of this chapter is calibrated to preserve judicial restraint while enabling constitutional enforcement. The reader is guided through thresholds of textual compatibility, separation-of-powers integrity, and due-process coherence before encountering discretionary or remedial considerations. This sequencing reflects the Court’s insistence that constitutional fidelity is achieved not through policy preference, but through architectural discipline. Each component stands alone for citation and adjudication, allowing judges and clerks to extract, test, and apply individual doctrines without collapsing the integrity of the whole. The result is a structure that protects the judiciary’s role as interpreter — not architect — of law, while ensuring that novel digital architectures remain bounded by enduring constitutional design.

Title	Page
<u>§I. Structural Compatibility with Textualist and Structuralist Jurisprudence</u>	618
<u>§II. Alignment with the Major Questions Doctrine</u>	619
<u>§III. Post-Chevron Judicial Function Without Presumption</u>	619
<u>§IV. Due-Process Compatibility by Architectural Construction</u>	619
<u>§V. The Judicial Role Under DAC</u>	620
<u>§VI. Judicial Restraint as Doctrinal Strength</u>	620
<u>§VII. Doctrinal Posture — Judicial Compatibility</u>	620
<u>Glossary of Terms — §X. Judicial Interpretive Compatibility in a Post-Chevron Framework</u>	622
<u>References</u>	641

Part III — Constitutional Jurisdiction & Algorithmic Authority

Part III — Constitutional Jurisdiction & Algorithmic Authority addresses the central constitutional question posed by digital and algorithmic systems: who governs, by what authority, and within what constitutional limits. This Part proceeds from a foundational principle of American constitutional law—that power is never presumed and authority is never self-legitimizing. Any system capable of exercising real-world economic or legal influence must be traceable to lawful constitutional sources. This section examines the tension between stateless technical architectures and territorial constitutional sovereignty, rejecting the premise that software-based governance can exist outside the reach of constitutional jurisdiction when domestic commerce, individual rights, or public order are implicated.

This Part applies settled constitutional doctrines—including the Commerce Clause, Due Process Clause, and the Non-Delegation Doctrine—to protocol-based governance systems. It establishes that algorithmic mechanisms which allocate rights, impose constraints, coordinate markets, or alter legal relationships function as de facto regulatory instruments. As such, they are subject to the same constitutional scrutiny historically applied to administrative agencies and delegated governmental authorities. The analysis demonstrates that claims of technical neutrality or decentralization cannot displace the constitutional requirement for accountable governance.

Part III also introduces the controlling doctrine of Constitutional Anchoring, which requires that any system with real-world legal or economic effect maintain traceable jurisdictional links, identifiable accountable actors, and intelligible legal standards. It concludes by establishing the operative principle that governs the remainder of the work: no system operating within or upon the United States may exercise sovereign-like authority without sovereign-grade accountability. This framework equips courts, regulators, and policymakers with a legally coherent method to evaluate algorithmic governance while preserving constitutional primacy.

§XI. Commerce, Delegation, & The Limits of Algorithmic Authority

This chapter examines the constitutional boundary conditions that govern when and how algorithmic systems may exercise functional authority in economic life without violating the structural safeguards of the United States Constitution. It situates stateless digital architectures within the established jurisprudence of the Commerce Clause, the Non-Delegation Doctrine, and Due Process requirements, demonstrating that technical decentralization cannot immunize systems from constitutional constraints when their operation materially affects interstate commerce or individual legal rights. The Table of Contents is structured to guide the reader through a sequential constitutional analysis, beginning with the fallacy of “statelessness” as a jurisdictional shield, proceeding through the doctrinal limits on private delegation of coercive authority to software, and culminating in a plain-language translation of these principles for congressional and judicial use. The chapter is designed not as theoretical commentary, but as a legally operational framework capable of direct judicial application in post-Chevron constitutional review.

Title	Page
<u>§I. Stateless Networks as Commerce Evasions</u>	643
<u>§I.A. The Illusion of “No Nexus”</u>	643
<u>§I.B. Statelessness as a Regulatory Evasion Strategy</u>	644
<u>§I.C. DAC’s Constitutional Position</u>	644
<u>§II. Algorithms as Unconstitutional Delegations</u>	645
<u>§II.A. Delegation Doctrine Basics</u>	645
<u>§II.B. Why Protocols Are Private Actors</u>	645
<u>§II.C. Algorithmic Authority as Unconstitutional Delegation</u>	646
<u>§II.C.1. Non-Delegation Doctrine</u>	646
<u>§II.C.2. Private Coercion Doctrine</u>	646
<u>§II.C.3. Doctrinal Conclusion</u>	647
<u>§III. Due Process Requirements for Economic Systems</u>	647
<u>§III.A. Void-for-Vagueness Doctrine</u>	647
<u>§III.B. Economic Liberty & Predictability</u>	648
<u>§III.C. Algorithmic Due Process</u>	649
<u>§IV. Policy Interpretation Block (Plain-English for Policymakers)</u>	650
<u>§IV.A. What Policymakers Need to Understand</u>	650
<u>§IV.A.1. No Digital System Operating in the United States Is “Outside” U.S. Jurisdiction</u>	650
<u>§IV.A.2. Algorithms Cannot Function as Lawmakers or Regulators</u>	650

<u>§IV.A.3. Economic Systems Must Follow Due Process — Even When Written in Code</u>	650
<u>§IV.A.4. “Code Is Law” Is Unconstitutional When Code Is Privately Controlled</u>	651
<u>§IV.A.5. DAC Provides a Constitutional Path Forward That Protects Innovation</u>	651
<u>§IV.A.6. Summary for Policymakers</u>	652
<u>§V. Argument / Counter-Argument Shield (Defense Against Mischaracterization)</u>	652
<u>§V.1. Congressional Framing Summary</u>	653
<u>§VI. Doctrinal Synthesis¹⁰⁴³</u>	654
<u>Glossary of Terms — §XI. Commerce, Delegation, & The Limits of Algorithmic Authority</u>	656
<u>References</u>	671

§XII. The Doctrinal Synthesis

This Table of Contents is constructed as a constitutional execution map rather than a navigational convenience. The structure reflects the deliberate progression of the Doctrine from first principles to enforceable legal standards, tracing the logical sequence by which Anchored Decentralization is defined, tested, disqualified, and ultimately institutionalized. Each subsection corresponds to a discrete doctrinal function, allowing courts, legislators, and counsel to isolate, evaluate, and apply the operative legal standards without reliance on narrative interpretation.

The organization is designed to serve judicial and legislative method. It mirrors the way constitutional doctrine is built in practice: through definitions, tests, dispositive rules, and pathways for institutional adoption. By presenting the synthesis in this tabular structure, the Doctrine provides an executable framework for congressional drafting, judicial reasoning, and regulatory calibration, ensuring that the principles of constitutional decentralization are not merely articulated but operationally available at every stage of legal application.

Title	Page
<u>§I. First Principles Reconstruction</u>	675
<u>§I.A. Definition of Anchored Decentralization</u>	675
<u>§II. Tests for Verifiable Decentralization</u>	676
<u>§II.A. Ontological Decentralization</u>	676
<u>§II.B. Behavioral Decentralization</u>	677
<u>§II.C. Jurisdictional Decentralization</u>	677
<u>§II.D. Doctrinal Rule of Satisfaction</u>	677
<u>§III. Tests for Disqualifying Centralization</u>	678
<u>§IV. Legislative and Judicial Pathways</u>	680
<u>§IV.A. DAC Statutory Corrections</u>	680
<u>§IV.B. Doctrinal Effect</u>	682
<u>§V. Doctrinal Clarification — Congressional Drafting & Counsel Integration Framework</u>	683
<u>§V.A. Regulatory Safe Harbor</u>	683
<u>§VI. Court-Adopted Doctrinal Refinements</u>	688
<u>§VII. Submission to the United States Congress</u>	693
<u>§VIII. Doctrinal Findings Summary — Constitutional, Structural, and Economic Conclusions of DAC</u>	693
<u>§IX. Doctrinal Conclusion — The Constitutional Imperative of Anchored Decentralization</u>	695
<u>References</u>	696

§XIII. The Author’s Commentary — The Chain of Consent and the Preservation of the Republic

This concluding section is structured as a jurisprudential reflection grounded in constitutional first principles rather than personal narrative. It examines consent as the irreducible foundation of lawful governance and traces how that principle survives—or fails—within modern decentralized architectures. The “Chain of Consent” is treated not as metaphor, but as constitutional mechanism: a traceable pathway through which authority remains lawful only so long as it remains accountable, intelligible, and revocable within the sovereign framework of the Republic.

Rather than departing from doctrinal rigor, this section completes it. It operates as a constitutional coda, reaffirming that technological evolution does not exempt systems from republican structure, separation of powers, or the conditions of earned legitimacy. Its purpose is not persuasion, but preservation: to anchor the Doctrine in the enduring legal reality that no architecture—digital or institutional—outlives the Constitution when consent is severed, obscured, or replaced by unaccountable design.

Title	Page
<u>§XIII. The Author’s Commentary — The Chain of Consent and the Preservation of the Republic</u>	699

Appendix

Appendix A — Constitutional and Statutory Architecture for Sovereign Monetary Continuity and Market Structure

Appendix A establishes the constitutional and statutory framework through which sovereign monetary continuity and market structure are evaluated and preserved under conditions of systemic fiscal and technological stress. The section opens with an evidentiary macroeconomic record documenting the structural regime shift in United States fiscal operations after 2008, followed by a doctrinal economic examination translating those empirical conditions into operational legal constraints.

The Appendix then develops a sequential analytical framework addressing post-crisis federal debt expansion, deficit volatility, and revenue growth under institutional constraint, culminating in an integrated interpretation of how these forces interact to shape lawful statutory design. Subsequent sections apply these findings to the statutory architecture of H.R. 3633, reframing the legislation as a continuity-of-government instrument rather than a categorical asset-classification regime.

The latter portions of the Appendix provide a structured legal rationale for proposed amendments—including the striking of Section 315—through the lenses of systemic risk management, Federal Reserve institutional function, and constitutional continuity doctrine. The Appendix concludes by mapping the operative statutory text of the Digital Asset Market Clarity Act of 2025 across Titles I through VII, providing a coherent structural bridge between empirical constraint, constitutional authority, and legislative execution.

Title	Page
<u>Evidentiary Record: Macroeconomic Regime Shift</u>	702
<u>Doctrinal Examination: Economic Examination of Exhibits A–C</u>	707
<u>I. Post-2008 Debt Expansion as Structural Phase Shift (Exhibit A)</u>	707
<u>II. Deficit Instability as Endogenous Scar rather than Cyclical Tool (Exhibit B)</u>	707
<u>III. Revenue Growth under Structural Constraint (Exhibit C)</u>	708
<u>IV. Integrated Interpretation Across All Three Exhibits</u>	708
<u>V. Implication for Statutory Architecture</u>	708
<u>V.A. When federal debt rises faster than normal (Exhibit A)</u>	708
<u>V.B. When the federal deficit becomes unstable (Exhibit B)</u>	709
<u>V.C. When government revenue grows but stability does not return (Exhibit C)</u>	709
<u>V.D. Why this matters for laws and rules</u>	709

<u>VI. H.R. 3633 as Continuity-of-Government Legislation, Not Asset Classification</u>	710
<u>VII. Rationale for Striking Section 315</u>	710
<u>VII.A. Structural Context</u>	710
<u>VII.B. Functional Role of the Federal Reserve Surplus</u>	711
<u>VII.C. Section 315 and Systemic Risk Amplification</u>	711
<u>VII.D. Continuity Implications</u>	711
<u>VII.E. Legislative Conclusion</u>	711
<u>Statute: Digital Asset Market Clarity Act of 2025</u>	713
<u>Title I — Definitions; Rulemaking; Expedited Registration</u>	714
<u>Title II — Offers and Sales of Digital Commodities</u>	739
<u>Title III — Registration for Intermediaries at the Securities and Exchange Commission</u>	761
<u>Title IV — Registration for Digital Commodity Intermediaries at the Commodity Futures Trading Commission</u>	774
<u>Title V — Innovation and Technology Improvements</u>	813
<u>Title VI — Autonomous Commodity Primitive Recognition Amendment of 2025</u>	839
<u>Title VII — Protection of Financial Privacy and Preservation of Sovereign Digital Currency Innovation</u>	845
<u>Doctrinal Reflection — Interagency Integrity as a National-Security Safeguard</u>	861
<u>Epilogue — The Cost of Hope</u>	863
<u>Final Institutional Doctrinal Assessment — MIT Systems Architecture + Harvard Law Doctrine</u>	864

Foreword

[\(Return to TOC\)](#)

In every discipline where law and technology converge, the precision of words carries the weight of generations. A single clause can shape a century. A single definition can determine the fate of markets, institutions, and the public trust. When drafting laws that govern emerging technologies, it is not enough to respond to the moment before us; one must examine the architecture with a neutral mind and project its consequences across a hundred years.

The Doctrine of Anchored Decentralization was written in that spirit. It is not a commentary on market cycles, nor an intervention in the political disputes that often surround digital assets. Rather, it seeks to restore clarity at the level where clarity matters most: the systems level. It does so by stepping outside the noise of speculation and returning to the foundations upon which decentralization was originally conceived.

Long before digital tokens became volatile instruments traded on exchanges, the intellectual lineage of decentralization was laid by the cryptographic timestamping work of Stuart Haber and W. Scott Stornetta. Their insight was not monetary but architectural: that truth could be preserved by distributing verification itself. Satoshi Nakamoto's contribution did not replace this foundation; it operationalized it. Bitcoin did not emerge as a new form of currency; it emerged as a new form of *integrity*. The asset existed only to secure the network. The network existed only to secure the ledger. And the ledger existed only to secure the truth.

It is for this reason that this Doctrine does not indict cryptocurrency, nor critique Bitcoin's monetary expression. To examine decentralization through a constitutional lens is not to diminish it—it is to return it to its intended conceptual home. Decentralization was never meant to be a contest between currencies. It was meant to be an architecture of verification, a safeguard for transparency, and a modern embodiment of the same principle that has guided this Republic since its birth: *that power must be accountable and consent must be traceable*.

This work, therefore, does not ask whether digital assets should rise or fall. It asks a deeper and more durable question: *What does decentralization require in order to remain compatible with the Constitution of a representative republic?*

To answer that question is not to resist innovation, but to preserve its legitimacy.

To refine its structure is not to undermine its purpose, but to secure its future.

And to anchor decentralization to the Chain of Consent is not a retreat to the past, but the only path that allows it to endure the century ahead.

This Doctrine stands, not as a warning, but as a compass—pointing decentralization back to its true north: *integrity, verifiability, and consent*.

Executive Summary

[\(Return to TOC\)](#)

The Doctrine of Anchored Decentralization (DAC) represents the first unified constitutional, economic, and structural framework engineered to govern decentralized digital systems without surrendering sovereign control, legal coherence, or market integrity. It was created in response to a demonstrable failure of existing digital-asset jurisprudence — not because technology outpaced law, but because constitutional architecture was abandoned in favor of improvisation.

For over a decade, regulatory bodies, market participants, and judicial venues attempted to force decentralized digital architectures into legacy legal categories designed for geographically anchored, managerially centralized industries. Courts were asked to classify systems deliberately engineered to evade jurisdiction using doctrines created for physical commodities and human-governed enterprises. Agencies were asked to regulate immutable code with tools built for discretionary corporate actors. The resulting legal landscape fractured into contradiction, uncertainty, and systemic risk.

DAC corrects this failure by reconstructing digital-asset law at its constitutional foundations.

Rather than expanding federal power, DAC restores constitutional alignment. It re-anchors emerging technologies to the core principles that make lawful markets possible: separation of powers, non-delegation, jurisdictional traceability, managerial neutrality, and due-process intelligibility. It rejects narrative-driven classifications and replaces them with architecture-based legal tests grounded in verifiable technical and behavioral reality.

At the center of this doctrine is the first universal, evidence-driven framework capable of distinguishing commodities from securities in the digital age without resorting to political discretion, regulatory elasticity, or market sentiment. The DAC framework provides a structural test suite that can be uniformly applied by Congress, the Securities and Exchange Commission (SEC), the Commodity Futures Trading Commission (CFTC), the Department of Justice (DOJ), and federal courts without interpretive drift.

A defining innovation of DAC is the formal introduction of Autonomous Commodity Primitives (ACPs) — a sovereign-grade digital instrumentation layer designed not as speculative commercial assets, but as immutable attestations of real-world productive and reserve-backed value. ACPs function as digital reserve infrastructure, continuously mirroring the legal and physical status of strategic commodities, materials, and sovereign-held collateral without transferring monetary authority away from Congress or collapsing the constitutional boundary between commodities and securities.

Unlike consumer-oriented Non-Fungible Tokens (NFTs), ACPs operate as ledger-anchored reserve mirrors, forming the digital spine of next-generation Asset-Backed Digital Currency (ABDC) systems. This architecture allows the United States to modernize its financial infrastructure while preserving constitutional monetary authority, avoiding managerial centralization, and providing real-time auditability of sovereign economic strength.

DAC is not merely a legal theory. It is a national-security doctrine.

By providing structural defenses against jurisdictional evasion, private algorithmic governance, reserve spoofing, and systemic financial opacity, DAC establishes a defensive layer for U.S. monetary sovereignty, market stability, and long-horizon solvency. It treats digital architecture not as a novelty, but as critical infrastructure.

Each chapter of this Doctrine includes a dual-layer design: a rigorous evidentiary architecture for courts and agencies, and a plain-language operational translation for policymakers. Embedded throughout are legal counter-argument matrices designed to equip Congress in anticipatory defense against litigation, regulatory capture, and institutional degradation.

Figures 1 through 3 function not as illustrations, but as operational decision frameworks — providing Congress, the SEC, the CFTC, and the public with clear, testable pathways for asset classification and constitutional evaluation.

To ensure that these frameworks remain operationally viable within the constitutional and national security architecture of the United States, readers are directed to Appendix A — Constitutional and Statutory Architecture for Digital Asset Classification and Market Clarity, which contains a comprehensive, section-by-section reconstruction and modernization of H.R. 3633 in its entirety. Appendix A is not a commentary or partial amendment. It is a full structural rewrite designed to correct constitutional conflicts, restore sovereign monetary authority, preserve critical infrastructure protections under standing national security directives, and prevent erosion of the Federal Reserve System’s lawful operating domain. This Appendix functions as a technical and constitutional reconstruction manual, aligning digital asset market structure with Article I, Section 8 of the United States Constitution and existing Homeland Security and Presidential Policy frameworks to ensure legislative modernization strengthens — rather than destabilizes — the financial and institutional foundations of the United States.

This is not a proposal to increase regulation.
It is a framework to restore constitutional authority.

This is not a theory of technology.
It is a doctrine of sovereign resilience.

DAC exists to ensure that the next era of economic infrastructure is not merely innovative, but lawful; not merely decentralized, but constitutionally anchored; not merely fast, but intelligible and just.

Congressional Findings

[\(Return to TOC\)](#)

This Doctrine finds that the failure of modern digital-asset law did not occur because technology evolved faster than the Constitution. It occurred because legislative proposals such as H.R. 3633 displaced constitutional structure in favor of administrative improvisation and market-driven narrative. Rather than anchoring emerging technological architectures in settled legal categories, H.R. 3633 attempted to stretch legacy doctrine through ambiguous delegations, undefined classifications, and structurally unstable jurisdictional constructs. The result has been institutional fragmentation, inconsistent enforcement logic, judicial uncertainty, and escalating systemic risk to the financial integrity of the United States.

This Doctrine finds that the term “decentralization,” as operationalized within H.R. 3633 and related legislative frameworks, has been structurally misrepresented. Most systems claiming decentralization retain measurable managerial control through developer authority, governance mutation rights, treasury discretion, infrastructure concentration, and coordinated narrative management. H.R. 3633 failed to codify any architectural threshold for decentralization, allowing rhetorical claims to substitute for constitutional conditions. Decentralization is not a market label; it is a constitutional state that either exists in verifiable system design or does not exist at all.

This Doctrine finds that H.R. 3633 delegates de facto legislative power to programmable private systems without explicit constitutional authorization. When software architectures can reassign economic rights, alter participation conditions, exclude or penalize users, redistribute value, or modify monetary parameters, those systems are exercising regulatory and legislative function. H.R. 3633’s framework permits such authority to persist through private code while bypassing Congress’s exclusive lawmaking obligations, in violation of the non-delegation doctrine, due process, and separation of powers. Code, when it governs outcomes, becomes the functional equivalent of law.

This Doctrine finds that H.R. 3633’s attempt to tolerate “stateless” or jurisdictionally evasive systems is constitutionally defective. Digital architectures that touch United States users, capital markets, infrastructure, or financial stability fall under the constitutional authority of Congress regardless of corporate domicile, incorporation strategy, or geographic fiction. H.R. 3633’s tacit accommodation of jurisdictional ambiguity undermines the supremacy of economic reality as the basis of lawful authority.

This Doctrine finds that the United States requires a universal, architecture-based method for distinguishing commodities, securities, and sovereign monetary instruments in the digital era. H.R. 3633 fails to supply such a method. This Doctrine therefore establishes a structural test grounded in verifiable control, governance mutability, managerial neutrality, and jurisdictional anchoring, allowing Congress, courts, and agencies to classify assets based on operational reality rather than semantic self-description.

This Doctrine finds that Autonomous Commodity Primitives (ACPs) constitute sovereign-grade ledger infrastructure, not speculative financial instruments. H.R. 3633 collapses this distinction by treating attestation-based reserve instruments as market securities rather than constitutional reserve infrastructure. ACPs do not manufacture value; they attest to existing sovereign value. By enabling continuous auditability, ledger-level verification, and constitutionally compliant asset-backed digital currency architecture, ACPs provide a lawful modernization pathway for national reserve infrastructure without compromising Congressional monetary authority.

This Doctrine finds that H.R. 3633 creates national security risk by tolerating opaque governance, evasive jurisdictional architecture, and invisible concentrated control. Digital systems that obscure authority, evade lawful jurisdiction, and concentrate power beyond structural visibility introduce systemic solvency risk, market fragility, and strategic exposure to foreign adversaries and non-state actors. Constitutional anchoring is not mere regulatory preference; it is a component of national defense posture.

This Doctrine therefore concludes that constitutional order and innovation are structurally interdependent. H.R. 3633 falsely treated legal discipline as a constraint rather than a stabilizing architecture. Systems engineered with lawful chains of consent, traceable delegation, managerial neutrality, and due-process intelligibility do not suppress innovation — they preserve it by eliminating ambiguity, stabilizing markets, and sustaining institutional legitimacy.

In sum, this Doctrine finds that the future of United States digital economic infrastructure does not depend on faster technology, broader discretion, or expanded administrative authority. It depends on the restoration of constitutional architecture, enforced through measurable system design and technologically embodied through sovereign-grade digital infrastructure.

Chapter I — Executive Brief

Doctrine of Anchored Decentralization (DAC)

[\(Return to TOC\)](#)

Foundational Legal Architecture for Digital Commodity Classification

Purpose of Chapter I

Chapter I provides Congress and executive agencies with the first enforceable legal architecture for determining when a digital asset may lawfully be classified as a “commodity” under the Commodity Exchange Act (CEA). Its central achievement is converting abstract statutory and judicial concepts into a concrete, auditable, and court-ready classification framework.

The chapter restores constitutional discipline to a domain that has drifted through informal agency expansion, market rhetoric, and misapplied analogies.

Core Legal Finding

A digital asset *can only be a commodity* if it is:

- *Non-managerial*
- *Non-discretionary*
- *Economically autonomous*
- *Independent of human governance, upgrade authority, or promotional signaling*

This is not a policy preference.

It is a constitutional requirement derived from:

- the Commodity Exchange Act,
- Supreme Court securities jurisprudence (Howey, Reves, Forman),
- and the separation of powers doctrine.

The Anchored Decentralization Test (ADT)

Chapter I introduces the Anchored Decentralization Test (ADT) — the first legally operational decentralization test in United States law and the doctrinal gateway through which all digital-asset classification under DAC must pass.

Under ADT, a digital asset qualifies as a *commodity* only if it satisfies *all three mandatory prongs*:

1. Technical Decentralization

No party may modify code, authorize upgrades, alter core parameters, or exert control over supply.

2. Legal Decentralization

No foundation, DAO, developer group, issuer, or affiliated entity may retain contractual authority, governance power, or enforceable rights over the system.

3. Behavioral Decentralization

No individual or group may shape, influence, or signal economic expectations through statements, roadmaps, promotional efforts, or public-facing strategic guidance.

Failure of any one prong is dispositive.

An asset that fails any prong **cannot** be treated as a commodity under DAC, regardless of technical sophistication or market claims.

To assist Congress in understanding how ADT integrates into the larger constitutional and administrative framework, the Test is operationalized and visualized through the following early-stage figures and tools:

- **Figure 1. The ADT Decision Tree (legal doctrine format)**
- **Figure 2. Constitutional Decision Architecture for Digital-Commodity Classification under DAC**
- **Figure 3. Constitutional Qualification Framework for Stateless Digital Architectures**
- **Table 8 — the ADT “Idiot-Proof” Test (policy and enforcement format)**

Figures 2 and 3 are included in the Chapter I Executive Summary **intentionally**, as they enable Members of Congress to visualize how ADT interlocks with the broader constitutional classification system before engaging with the full doctrinal narrative. This ensures immediate structural clarity and prevents misinterpretation during legislative or committee review.

Why This Matters to Congress

Without this framework:

- Agencies expand jurisdiction by analogy rather than statute
- Courts are forced to resolve ambiguity Congress never intended
- Founders and private developers effectively write federal law through software design

Chapter I prevents this by:

- Reasserting Congressional authority over classification standards
- Blocking administrative overreach under the major questions doctrine
- Preserving state commercial law and federalism boundaries
- Preventing private actors from exercising de facto regulatory power

Functional Equivalence Doctrine — Contained

Chapter I limits the Functional Equivalence Doctrine to its original, lawful purpose:

- It may only be used to identify *non-managerial instruments* behaving like traditional futures.
- It *cannot* override statutory definitions.
- It *cannot* convert managed digital systems into commodities.

This directly counters the common industry claim:

“If it trades like a commodity, it is a commodity.”

Under DAC, this claim is legally false.

Historical Continuity with Federal Commodity Law

Chapter I links DAC to existing federal frameworks:

- The National Gold and Silver Stamping Act (1906)
- Federal commodity marking and traceability doctrine
- USDA and Treasury verification lineage

Digital commodities must now:

- Correspond to verifiable economic reality
- Carry traceable, enforceable digital markings
- Support continuous federal audit chains

This prevents “self-certified decentralization” and marketing-driven classification.

Autonomous Commodity Primitives (ACPs)

Chapter I introduces ACPs as a lawful, constitutional alternative to speculative crypto-tokens.

ACPs are:

- *Digital documents of title*
- *Ledger-anchored commodity receipts*
- *Aligned with UCC Article 7*
- *Compatible with Treasury-grade reserve logic*

They are *not* securities, currencies, or investment contracts.

Judicial Alignment

This chapter aligns Congress with modern Supreme Court posture:

- Textualist enforcement of statutory meaning
- Collapse of Chevron deference
- *Slack v. Pirani*'s emphasis on provenance and transactional nexus

Modern courts will ask:

- Who controls it?
- Who can change it?
- Who signals about it?

Not:

- *What is it called?*
- *Where does it trade?*

Bottom Line for Policymakers

Chapter I gives Congress a sentence it can defend in court, hearings, and statute:

A digital asset is only a commodity when **no one controls it, governs it, upgrades it, signals about it, or economically steers it.**

Where managerial influence exists, the asset is *not a commodity*, regardless of branding, exchange trading, or decentralization claims.

Strategic Impact

Chapter I establishes:

- A defensible constitutional line between *commodities*, *securities*, and *private monetary instruments*
- A framework agencies can enforce without overreach
- A model courts can apply without legislative ambiguity

It forms the legal foundation for *all later DAC pillars*.

Chapter II — Executive Brief

System Architecture as Constitutional Governance

(Return to TOC)

Purpose of Chapter II

Chapter II explains *how* the legal boundary defined in Chapter I is enforced in the real world.

- **Pillar 1** (Chapter I) defines a commodity as a *non-managerial, non-discretionary object*.
- **Pillar 2** (Chapter II) defines the *system architecture that must exist* for such a non-managerial digital object to be possible.

Together, Pillar 1 (law) and Pillar 2 (architecture) form one constitutional machine:

If it can be governed, it is not a commodity.

If the architecture allows governance, the law must deny commodity status.

Chapter II is where DAC moves from theory to enforcement.

Core Structural Finding

Commodities cannot have managers.

Chapter II adds the architectural corollary:

Any digital system that requires *human management*—validators, foundations, multisigs, governance tokens, roadmaps, or emergency keys—*cannot* be treated as a commodity.

This is not a policy preference.

It is a structural consequence of:

- the Commodity Exchange Act,
- Howey / Reves / Forman,
- separation of powers,
- Article I monetary authority,
- and national-security doctrine.

Deployed Code vs. Governed Code

Chapter II introduces a decisive distinction:

Deployed Code

- Immutable, no upgrade path, no governance channel.
- No one can change parameters, halt the system, or steer outcomes.
- This *can* potentially approach commodity status.

Governed Code

- Upgrade keys, multisigs, DAO votes, roadmaps, dev funds, foundations, validator committees.
- This is a *managed enterprise*, not an object.

DAC Rule:

Only Deployed Code can even *theoretically* qualify as a commodity.
Governed Code is categorically excluded.

Architecture = Law: Design Decisions *Are* Governance

Chapter II applies the “architecture = law” principle:

- **Slashing rules** function like penalties.
- **Block rewards and fees** function like tax and incentive policy.
- **Governance voting** functions like a legislature.
- **Upgrade keys / multisigs** function like an executive.
- **Repository maintainers / foundations** function like a board.

The takeaway for policymakers:

A protocol with governance is not a commodity.
It is a jurisdiction, a rulemaking body, and an enforcement system.

Calling it “decentralized” does not change its legal character.

Validators, Governance Tokens, and “Emergency Keys”

Chapter II strips away the most common narratives:

- **Validators**

When they vote on upgrades, set parameters, approve slashing rules, or coordinate behavior, they are *collective managers*, not neutral operators.

- **Governance Tokens**

Token-weighted voting recreates a *shareholder-style governance regime*, concentrating power in wealth, not making the system commodity-like.

- **Emergency Keys / Multisigs**

“For emergencies only” is irrelevant legally.

Commodities do not have red buttons. **Emergency authority is still authority.**

Plain rule: *if anyone can press a button and the system changes, it is not a commodity.*

The Mutable Commodity Paradox

Chapter II names and resolves a core contradiction:

Mutable Commodity Paradox

A digital system cannot both (1) be mutable through governance and (2) be a commodity.

- Physical commodities can be bought, sold, and hedged, but **nobody can change what wheat or gold is.**
- Digital networks are routinely:
 - forked,
 - upgraded,
 - patched,
 - rolled back.

That mutability signals *ongoing managerial discretion*.

DAC Rule:

If the network can be changed, it is not a commodity.

Immutability must be *provable*, not aspirational or marketing language.

Sovereign Concentration as Per Se Managerial Control

Chapter II introduces one of DAC's most important national-security rules:

Sovereign concentration of hash power or validator power is per se managerial control.

If a foreign state (or state-aligned bloc) can:

- decide fork outcomes,
- reorder blocks,
- censor transactions,
- influence finality,
- or reorganize the chain,

then:

- the network is *governed*, not neutral;
- commodity classification becomes *legally impossible*;
- Article I monetary and national-security concerns are triggered.

This is a *classification* rule, not a ban:

- Such a system might belong under **SEC**, **Treasury/FinCEN**, or **NSC** scrutiny —
- But **never** under “commodity” status.

Where sovereignty enters, decentralization ends.

Evidentiary Standard: Proving Non-Management

DAC places the **burden of proof** entirely on the party claiming commodity status.

To even *argue* that a digital system is a commodity, the proponent must show:

- No upgrade authority.
- No governance tokens or voting.
- No coordinated validator control.
- No foundation, DAO, council, or steering body.

- No roadmaps, AMAs, expectation-shaping communications.
- Documented history of *no* interventions.

And this must be demonstrated through:

- chain forensics,
- governance-pathway audits,
- commit and key-holder analysis,
- and operational history.

Assertions of decentralization are not evidence.
DAC requires *proof* of non-management.

Plain-English Rule for Policymakers

Chapter II gives Congress a one-sentence test:

If humans can manage it, it is not a commodity.

In practice, that means:

- If *anyone* can change code, parameters, or rules → not a commodity.
- If *any group* (validators, token-holders, councils) votes on anything that changes the system → not a commodity.
- If *roadmaps, updates, or AMAs* move the price → not a commodity.
- If *emergency powers* exist → not a commodity.
- If *foreign sovereigns* can steer consensus → not a commodity.

Integration with Chapter I: The Two-Pillar Lock

Chapter II closes the loop with Chapter I:

- **Pillar 1 (Law):** Commodities must be non-managerial objects.
- **Pillar 2 (Architecture):** Only systems that *cannot be managed* in their design can ever qualify.

Together they form a simple, unbreakable rule:

If it can be governed, it is not a commodity.

This dual-pillar architecture:

- gives Congress a clear statutory boundary,
- gives courts a consistent interpretive framework,
- gives agencies an enforceable standard that resists industry spin and foreign leverage.

Chapter II – NSC / Treasury Ultra-Condensed Brief

Why System Architecture Determines Whether a Digital Asset Can Ever Be Treated as a “Commodity”

[\(Return to TOC\)](#)

Operational Thesis for NSC & Treasury

Chapter II makes a single, hard-edged claim:

If a digital system can be governed, it cannot be a commodity.

“Governed” here includes *any* human ability—public or private, domestic or foreign—to:

- upgrade or halt the protocol,
- steer consensus or settlement outcomes,
- control parameters or supply,
- or influence expectations through managerial signaling.

For NSC and Treasury, this is not a semantic debate; it is a classification firewall:

- **Commodities** = non-managerial objects, structurally neutral.
- **Governed digital systems** = managed infrastructures, with direct implications for:
 - sanctions enforcement (OFAC),
 - sovereign monetary authority (Article I),
 - systemic and geopolitical risk (NSC, Treasury).

DAC’s Chapter II explains how system *architecture itself* either preserves or destroys this commodity boundary.

Deployed Code vs. Governed Code — The Core Distinction

Chapter II introduces the classification split that matters for national security and Treasury:

- **Deployed Code (Commodity-Capable Architecture)**
 - Immutable, no upgrade keys, no governance channel.

- No one—no foundation, DAO, multisig, or validator cartel—can change behavior once deployed.
- Behaves like an inert object (closest digital analogue to a commodity).
- **Governed Code (Managed Infrastructure)**
 - Uses multisigs, governance tokens, validators votes, roadmaps, dev funds, foundations, etc.
 - Behavior depends on **ongoing human discretion**.
 - Legally and functionally indistinguishable from a **governed financial system**, not a commodity.

NSC/Treasury implication:

Any digital rail we might rely on (or face as an attack surface) that is “governed code” is **not** a neutral substrate. It is a managed system subject to capture, coercion, and policy leverage.

Architecture = Law: Protocol Design as De Facto Governance

Chapter II translates protocol mechanics into governance in terms NSC and Treasury already use:

- **Slashing rules** → coercive penalties (enforcement regime).
- **Block rewards / fees** → incentive and tax policy (fiscal regime).
- **Governance voting** → legislative process.
- **Upgrade keys / emergency multisigs** → executive power.
- **Repository maintainers / foundations** → board / corporate management.

For NSC and Treasury, the key takeaway is:

Any network with slashing, governance votes, upgrade keys, and foundation-driven roadmaps is *not* an object. It is a jurisdiction and a governance system.

Such systems are **never** commodities in the neutral sense; they are programmable governance zones that can be:

- influenced by wealthy actors,
- captured by foreign sovereigns,
- or used as sanctions-evasion corridors.

Sovereign Concentration = Per Se Managerial Control

Chapter II establishes a bright-line rule essential for national security:

Sovereign concentration of hash/validator power is per se managerial control.

If a foreign state or state-aligned bloc can:

- determine fork outcomes,
- reorder blocks and MEV flows,
- censor classes of transactions,
- influence finality or reorg the chain,

then:

- the network is **governed**, not decentralized;
- treating it as a “commodity” would:
 - undermine Article I monetary authority,
 - conflict with OFAC/Treasury’s sanctions posture,
 - and introduce systemic risk via externally steerable settlement rails.

This is a **classification rule**, not a ban:

- Such systems may fall under:
 - SEC jurisdiction (managed financial instruments),
 - Treasury/FinCEN (payment and AML risk),
 - NSC review (infrastructure and geopolitical leverage),
- But **never** under “neutral commodity” status.

National-security translation:

Where a sovereign can steer consensus, the U.S. cannot treat the system as neutral infrastructure.

The Mutable Commodity Paradox

Digital systems are **inherently mutable** (forks, patches, rollbacks).

Chapter II names the paradox:

A digital asset cannot both (1) be mutable through human governance and (2) be treated as a commodity.

For NSC/Treasury, this matters because:

- Any system we depend on or allow to scale into de facto settlement must be evaluated on **whether humans can still change it**.
- If yes:
 - it is vulnerable to coercion, capture, and insider manipulation,
 - and it belongs in a **managed-system** category (securities, payments, or critical infrastructure), not “commodity.”

Evidentiary Standard – Burden on the Proponent

DAC places the **full burden of proof** on anyone claiming that a digital system is a commodity.

To even approach commodity status, they must show:

- No upgrade authority (keys, multisigs, emergency controls).
- No governance tokens, DAO votes, or validator councils.
- No foundation, steering committee, or dev fund with discretion.
- No roadmap or ongoing expectation-shaping communications.
- A documented history of **zero** discretionary interventions.

And this must be proven with:

- chain forensics,
- governance-path audits,
- key/maintainer mapping,
- and operational history.

For NSC/Treasury, this standard provides a **defensible threshold** for:

- regulatory posture,
- sanctions-design decisions,
- and systemic-risk classification.

One-Line Test for NSC and Treasury

Chapter II hands senior decision-makers a single operational rule:

If humans can manage it, it is not a commodity.

In practice:

- If anyone can change the rules, steer consensus, or “hit the red button,”
→ treat it as a **managed system**, not a commodity.
- If a foreign sovereign can do any of those things,
→ treat it as a **national-security exposure**, not neutral infrastructure.

This is the lens NSC and Treasury can use to evaluate any digital rail crossing into U.S. financial, monetary, or strategic domains.

NATIONAL-SECURITY DOCTRINE INSERT

[\(Return to TOC\)](#)

Terror-Finance Disruption and Hard-Cost Prevention Under ABDC Architectures

(Author's National-Security Clarification — Inline Citations)

This National-Security Doctrine Insert is provided to clarify, with empirical grounding and operational precision, the transformative effect that Anchored Blockchain Digital Constructs (ABDCs) have on global terrorism financing and asymmetric threat capacity. The analysis herein is intentionally set apart from the statutory, constitutional, and regulatory logic of the Doctrine. It addresses the national-security implications of ABDC deployment and is offered as an expert clarification for congressional counsel, federal agencies, and allied sovereigns evaluating ABDCs as a defensive financial infrastructure.

1. The Crypto-Based Slice of Global Terror Financing

While global terrorism financing is estimated at approximately \$10–15 billion annually (UN CTED; U.S. Congressional Research Service), only a very small fraction of this total currently exploits cryptocurrency rails. Independent analyses from FATF, Chainalysis, TRM, and multiple national Financial Intelligence Units (FIUs) consistently show that terrorist use of digital assets remains extremely limited, generally in the low-millions to low-tens of millions annually, and subject to frequent operational disruption through seizures, wallet interdictions, and blockchain-analytics tracing.

Global illicit crypto transaction volume in 2024 is estimated at \$40–45 billion, representing approximately 0.4% of all on-chain activity (Chainalysis 2024). Terror financing constitutes well under 1% of that illicit slice. A conservative and policy-honest estimate—consistent with public seizures, FIU reporting, intelligence-community assessments, and congressional testimony—is that \$50–\$500 million per year in global terrorism financing currently exploits cryptocurrency channels.

This annual exploitation range represents 0.4% to 4.3% of worldwide terror budgets. It is precisely this slice—not the entire terrorism ecosystem—that ABDCs structurally compress.

However, this empirical constraint exists only because decentralized assets are not yet normalized within mainstream financial rails. If pseudonymous or anonymity-preserving decentralized assets were integrated into retail circulation, statutory finance, or payment-system parity—as proposals like H.R. 3633 would have enabled—then the absolute volume of terrorist exploitation would increase proportionally with ecosystem throughput. Even if illicit activity remained at its current percentage, a larger liquidity pool necessarily yields larger volumes of

terrorist financing, and historical intelligence assessments show that illicit actors disproportionately migrate toward the least transparent rail, meaning the percentage itself would also increase.

Thus, the present crypto-based portion of global terror finance appears small not because the risk profile is inherently low, but because the ecosystem itself remains constrained, fragmented, and surveilled. ABDC architectures preserve this constrained state by design: they compress the existing slice while preventing the throughput expansion and opacity restoration that would cause a multiplicative rise in terror exploitation under mainstream adoption.

2. ABDCs and the Multi-Decade Attrition of Crypto-Enabled Terror Financing

ABDC infrastructure disrupts terrorism financing by replacing pseudo-anonymous, jurisdictionally ambiguous crypto-rails with sovereign-anchored, regulator-readable, and non-custodial digital financial architecture. The effect is not instantaneous but compounding.

Year 5 — Early Enforcement (10–15% Attrition)

U.S.-touchpoint exchanges, OTC desks, wallets, and payment gateways adopt ABDC-aligned compliance; the easiest pseudo-anonymous financing channels collapse; terror actors migrate to slower, riskier methods (cash couriers, hawala networks, weak-AML jurisdictions).

Year 10 — Selective Foreign Adoption (20–30% Attrition)

EU, UK, and G7 nations begin adopting ABDC-compatible standards; global exchanges converge toward ABDC logic to maintain U.S. market access; typology libraries and shared analytics increase interdiction.

Year 15 — Network Effects + Jurisprudential Anchoring (30–40% Attrition)

FIUs and courts build a decade of case law around ABDC-structured data; “clean rails vs. dirty rails” becomes a global norm; permissive jurisdictions face de-risking, FATF review, and secondary sanctions.

Year 20 — Global Best Practice (40–50% Attrition)

Most functioning economies adopt sovereign-anchored digital-asset architecture. Cross-border suspicious flows trigger automatic flagging, bilateral intelligence sharing, and immediate account freezes.

Year 25 — Full Maturation (50–60% Attrition)

ABDC logic becomes default architecture in newly designed systems. AI-assisted anomaly detection, institutional memory, and global harmonization compress crypto-enabled terror capacity to a fraction of its early-21st-century baseline.

This 25-year horizon aligns with Treasury’s long-run risk modeling, FATF mutual evaluation cycles, and the life-cycle of international compliance standards.

3. The Hard-Cost Reality of Terrorism: Catastrophic Impact at Minimal Price

Historical case studies demonstrate that **mass-casualty terrorism is shockingly inexpensive to execute**. Conservative operational-cost estimates include:

- **September 11, 2001 (U.S.)** — ~3,000 deaths; operational cost **\$400k–\$500k** (FBI congressional testimony; 9/11 Commission).
- **Madrid Train Bombings (2004)** — 193 deaths; **\$12k–\$25k** in materials (Spanish Interior Ministry).
- **Mumbai Train Bombings (2006)** — 200 deaths; **\$7.5k–\$15k** (Indian NIA forensic findings).
- **Mogadishu Bombing (2017)** — 358 deaths; **\$10k–\$40k** (Somali NISA analysis).
- **Qahtaniyah Bombings (2007)** — 796 deaths; **\$35k–\$100k** (Iraqi National Security Council).
- **Beslan School Siege (2004)** — 334 deaths; **\$3k–\$50k** (Russian Prosecutor General).
- **Oklahoma City (1995)** — 168 deaths; **\$1.7k–\$2k** in ANFO materials (U.S. DOJ).
- **LRA Christmas Massacres (2008)** — 620–860 deaths; **\$1k–\$3k** (UN MONUSCO reporting).

Across all cases:

- Operational budgets ranged from *\$1,000 to \$500,000*.
- Cost-per-fatality ranged from *\$1 to \$150* (excluding 9/11).
- A handful of stolen trucks, fertilizer, fuel oil, or black-market explosives yielded *hundreds to thousands of deaths*.

The strategic implication is unavoidable:

Every \$10,000 in terror capital removed prevents the operational potential for a medium-scale mass-casualty attack.

Every \$1 million removed prevents the operational capital for 50–100 such attacks.

Thus, even modest ABDC-driven attrition of digital terror capital has *geometric life-preservation effects*.

4. Expected Prevention Value: A Quantifiable National-Security Outcome

When combining:

- the *\$50–\$500M annual crypto-terror slice*,
- the *10–60% ABDC attrition horizon*, and

- the *\$1k–\$500k hard-cost spectrum*,

ABDC deployment conservatively removes:

- **Year 5:** *\$5M–\$75M* in terror capital
- **Year 10:** *\$10M–\$150M*
- **Year 15:** *\$15M–\$200M*
- **Year 20:** *\$20M–\$250M*
- **Year 25:** *\$25M–\$300M*

Each tranche removed represents:

- *hundreds to thousands of prevented operational opportunities*,
- *billions in avoided economic damage*, and
- *dozens to low-hundreds of prevented deaths annually*, even under conservative elasticity assumptions (0.3–0.7 lethality response per 1% funding decrease).

This should be understood not as speculation, but as the *mathematically demonstrable consequence of removing low-cost operational fuel from high-lethality actors*.

5. Sovereign-Agnostic Deployability

The ABDC architecture is *sovereign-neutral, constitutionally modular, and fully exportable* to foreign nations. Each sovereign can map ABDC layers—sovereign anchoring, regulator readability, non-custodial accounting functions, and managerial/non-managerial classification—onto its own constitutional, regulatory, and monetary authorities *without dependence on U.S. law*.

Thus, the national-security benefits described in this Insert *scale proportionally with multinational adoption*, including reductions in global terror-financing volume, cross-border laundering, and digital operational agility.

National-Security Insert Conclusion

ABDCs, when understood not as financial instruments but as *sovereign security infrastructure*, demonstrate measurable, compounding, and globally scalable reductions in terror-finance capacity. By structurally eliminating the anonymity premium of non-sovereign cryptocurrencies and forcing illicit actors into visible, high-risk channels, ABDCs directly reduce the operational capital available for mass-casualty attacks—capital that historically has required as little as \$1,000–\$20,000 to produce catastrophic human loss.

This Insert is offered to clarify that the impact of ABDC deployment extends beyond economic regulation. It is, in the fullest sense, a national-security doctrine with quantifiable preventative force, aligned with DHS, DOJ, Treasury, FATF, and allied global counterterrorism frameworks.

Chapter III – Executive Brief

Constitutional Balance and Proposed Refinement

[\(Return to TOC\)](#)

Chapter III is where the Doctrine of Anchored Decentralization (DAC) stops talking *about* digital assets and starts talking directly to the Constitution. If Chapters I and II answered “What is a commodity?” and “What must the architecture be?”, Chapter III answers the only question that ultimately matters in American law:

Is this architecture constitutionally permissible at all?

The chapter’s governing premise is simple and severe:

No system may be treated as a commodity unless its architecture is constitutionally permissible.

Novelty is irrelevant. Only conformity to the Constitution matters.

The Constitutional Scaffold

Chapter III introduces four instruments that turn this from theory into something a court can actually use:

- **Table 18 – “Verifiable Decentralization” vs. “Self-Attested Decentralization”**
Draws a bright line between decentralization that can be *proven* (cryptographically, structurally, historically) and decentralization that is merely *claimed*. Only the former has constitutional weight.
- **Figure 3 – Constitutional Qualification Framework for Stateless Digital Architectures**
A decision framework that asks whether a system survives:
 - Commerce Clause limits (is there a real jurisdictional hook?),
 - Non-Delegation constraints (has sovereign power been handed to private/algorithmic actors?), and
 - Due Process requirements (are rules predictable, knowable, and fair?).
- **Table 19 – Constitutional Crosswalk of Terms**
Keeps language consistent across Chapters I–III so that “commodity,” “governance,” “discretion,” and “decentralization” mean the same thing in statutory, architectural, and constitutional contexts.
- **Table 20 – Citation Map for Chapter III**
A navigation map for clerks, CRS, and chambers to move directly from structure → doctrine → case law without interpretive drift.

Together, these instruments convert DAC into a **structural constitutional doctrine** rather than a policy essay.

Commerce Clause: The Nexus Problem

Chapter III first addresses the **Commerce Clause**: Congress can regulate commerce “with foreign Nations, and among the several States,” but only where there is a real jurisdictional nexus.

“Stateless” architectures – those that proudly claim:

- no headquarters,
- no foundation,
- no servers,
- no identifiable operators,

are not just technically unusual; they are **constitutionally unanchored**. If there is no:

- identifiable actor,
- auditable governance mechanism, or
- verifiable point of control,

then there is **no object** for Congress’s commerce power to attach to. DAC’s conclusion is sharp:

Statelessness is not neutrality; it is jurisdictional collapse.

Where there is no constitutional anchor, classification itself fails.

The Chain of Consent Doctrine

Next, Chapter III introduces the **Chain of Consent** as the constitutional predicate for any lawful decentralization:

- In a constitutional Republic, authority must trace:
 - from the People →
 - to the Constitution →
 - to the branches →
 - to delegated institutions →

- to markets.

Decentralized systems fracture that chain by inserting code, anonymity, token economics, and algorithmic enforcement in between. DAC's test:

- **Origination Consent** – Authority must originate in a recognizable sovereign or lawful civil framework, not in anonymous mythos.
- **Continuity Consent** – Consent must remain traceable and revocable; rules cannot mutate in ways that make consent meaningless.
- **Accountability Consent** – There must be an identifiable end-point of responsibility for design, enforcement, and dispute resolution.

If any of these layers fail, the system is not “decentralized” in a lawful sense—it is *stateless power*. And a system exercising stateless power cannot be a commodity, because commodities presuppose a lawful backdrop of consent.

Non-Delegation: Protocol Governance as Unconstitutional Lawmaking

Chapter III then applies the **Non-Delegation Doctrine**:

- Protocol-level governance (upgrades, parameter changes, inflation schedules, penalties, forks) is not “technical housekeeping”; it is *rulemaking, adjudication, and enforcement*.
- When these powers are exercised by:
 - token voters,
 - anonymous devs,
 - offshore foundations, or
 - autonomous algorithms,

the result is *private legislatures and private executives* operating outside constitutional accountability.

Encoding discretion in code does not cure the defect; it hides it. DAC's position:

Any digital system whose governance makes binding economic rules without constitutional anchoring is an unconstitutional delegation of sovereign power.

Thus, most “governed” protocols are not just non-commodities—they are structurally incompatible with core separation-of-powers doctrine unless re-anchored.

Due Process: Vagueness, Predictability, and Algorithmic Penalties

Under **Due Process**, rules that govern property and economic rights must be:

- intelligible,
- predictable,
- and fairly applied.

Many decentralized systems fail this by allowing:

- opaque algorithms,
- social-governance forks,
- MEV-based unpredictability,
- slashing and seizure without judicial or procedural safeguards.

If an algorithm or governance process can:

- freeze funds,
- slash stake,
- retroactively change rules through forks, or
- alter monetary parameters without clear ex ante standards,

then the architecture functions as *private, unpredictable law*. DAC's bright line:

A system is either deterministic or it is governed.

Commodities require deterministic predictability; governed systems cannot be commodities.

Where discretion and unpredictability are baked into the protocol, Due Process fails and constitutional legitimacy evaporates.

The Constitutional Burden of Decentralization

Chapter III then locks in the **burden of proof**:

- The government does **not** bear the burden to prove centralization.
- Anyone claiming decentralization as a shield from regulation must *prove*:

- no management,
- no discretion,
- no governance channel,
- no upgrade authority,
- no hidden control vectors.

DAC distinguishes:

- **Self-Attested Decentralization** – marketing claims, opaque governance, social control, unverifiable “no one’s in charge.”
- **Verifiable Decentralization** – cryptographically provable absence of control, immutability, mathematically enforced inability to upgrade or steer.

Only the latter has constitutional standing. Until verifiable decentralization is proven, **the law presumes control**.

Pillar III – The Constitutional Refinement Pillar

Finally, Chapter III positions itself as **Pillar III: The Constitutional Balance Requirement**:

- **Chapter I:** Public clarity on what is and is not a commodity.
- **Chapter II:** Congressional and agency structure for aligning architecture with law.
- **Chapter III:** Judicial filter for whether a system may exist within the Constitution at all.

Pillar III does not expand federal power or bless any policy outcome. Instead, it:

- tells Congress what the Constitution already forbids,
- tells courts where constitutional boundaries already exist,
- insists that no technical design can bypass constitutional architecture.

In short:

**The Constitution does not yield to code.
Code must yield to the Constitution.**

If DAC survives constitutional scrutiny, it is because it has accurately described what the Constitution already requires. If it does not, it should be discarded. That is the only posture Chapter III is willing to claim.

Chapter IV – Executive Brief

Reconstructing the Legal Definition of a Digital Commodity

(Return to TOC)

Chapter IV performs the legal reset that modern digital-asset law has failed to accomplish: it restores constitutional coherence to the definition of a “commodity” in the programmable age.

The core problem this chapter addresses is structural, not political. The Commodity Exchange Act (CEA) was written for inert, non-governing objects — things that could be traded, stored, and referenced in derivatives, but could not change themselves, govern users, enforce behavior, or evolve through discretion. Modern “digital commodities” do all of these things, yet are still being labeled as commodities by narrative rather than by structure. That misclassification has destabilized federal jurisdiction, constitutional boundaries, and agency legitimacy.

Chapter IV corrects this by reconstructing—not expanding—the legal definition of a commodity so that it once again aligns with:

- Article I limits
- Non-delegation doctrine
- Due process requirements
- Original statutory logic of the CEA

This is not policy advocacy. It is *constitutional repair*.

The DAC Commodity Standard (Reconstructed Definition)

DAC establishes a binding constitutional definition:

A digital commodity is a non-managerial, non-discretionary infrastructure object whose operation is fixed, predictable, and incapable of being directed, altered, or influenced by any identifiable person or group.

This definition imposes **four mandatory neutrality requirements**:

1. **Legal Neutrality** — No managers, no discretion, no governance layer.
2. **Economic Neutrality** — No discretionary issuance, treasuries, or market steering.
3. **Technical Neutrality** — No upgrade keys, forks, councils, or mutability.
4. **Behavioral Neutrality** — No founders, roadmaps, narrative steering, or coordinated influence.

Where any of these fail, the object is *not a commodity* as a constitutional matter.

Resulting structural reality (non-political):

- Bitcoin qualifies (non-managerial, structurally inert).
- Virtually all other digital assets fail due to governance, foundations, upgrades, or discretionary control.

This outcome is constitutional, not ideological.

Verifiable Decentralization (Not Self-Assertion)

Chapter IV converts decentralization into a *constitutional evidentiary test*, not a branding claim.

A system is decentralized only if it can *prove*:

- No upgrade authority exists
- No discretionary issuance exists
- No entity controls economic direction
- No person can alter the rules
- No managerial functions exist

Failure of any *single* element collapses the decentralization claim.

DAC also introduces the legally dispositive concept of the “*Managerial Shadow*.”

Observable evidence of control — including:

- Roadmaps
- Foundations
- Token governance
- Coordinated forks
- Developer key control
- Marketing direction

= conclusive proof that the system is *governed* and *not a commodity*.

Federal Jurisdiction – Restored, Not Expanded

Chapter IV *does not expand federal power*. It restores proper constitutional boundaries.

CFTC:

- Has jurisdiction *only* over constitutionally neutral commodities.
- No authority over governed or discretionary systems.
- Is relieved of chasing misclassified securities.

SEC:

- Jurisdiction becomes *automatic* where managerial effort, discretion, or profit-from-efforts-of-others exists.
- No new test created — just architectural application of *Howey*, *Forman*, and *Reves*.

This ends inter-agency conflict by making *structure control classification*, not politics or lobbying.

Anchored Decentralization as Constitutional Remedy

DAC establishes a five-part constitutional gate for commodity eligibility:

A system must have:

1. Jurisdictional anchoring
2. Constitutional compliance
3. Operational immutability
4. Absence of managerial control
5. Resistance to discretionary influence

Failure of any = system is governed → **cannot be a commodity**.

Where there is *no anchor*, the system receives *no federal classification at all* — preserving constitutional limits rather than expanding them.

Congressional Utility (Plain-English Doctrine)

Congress receives a **defensive constitutional shield**, not a political weapon:

- If it can be managed → **not a commodity**
- If people can change it → **not neutral**
- If profit depends on human effort → **security**
- If decentralization is only claimed → **legally nonexistent**

Congress need only ask:

“Is this system governed, or is it neutral?”

That question ends the analysis.

Structural Outcome of Chapter IV

Chapter IV delivers:

- A constitutionally enforceable commodity definition
- Automatic SEC/CFTC boundary clarity
- Elimination of marketing-based classification
- Removal of agency discretion creep
- Restoration of constitutional legitimacy

Key Principle:

DAC does not create new law.

It forces existing law to obey the Constitution again.

Bottom Line for Congress

Chapter IV gives Congress a *non-political, court-defensible standard*:

- No expansion of power
- No new legislation required
- No technical expertise demanded

Only constitutional structure governs.

If governed → not a commodity.

If neutral → may be one.

That is the *restored* rule of law.

Chapter IV — Treasury / NSC Strategic Brief

Reconstructing “Digital Commodity” as a National Security and Sovereign Stability Function
([Return to TOC](#))

Strategic Purpose

Section IV establishes why misclassification of digital assets is no longer a regulatory inconvenience — it is a *sovereign financial stability risk*.

This section rebuilds the definition of “commodity” so that only *constitutionally neutral, non-governed systems* can operate as foundational economic primitives inside U.S. financial architecture.

This is not market policy.

This is *monetary defense architecture*.

National Security Problem Identified

Current legal ambiguity allows *governed digital systems* to masquerade as *neutral economic infrastructure*, creating:

- Shadow monetary systems
- Unaccountable economic governance layers
- Foreign-controlled liquidity funnels
- Covert capital-routing frameworks
- Latent sanctions-evasion infrastructure

The risk is not speculation risk.

It is *sovereign control erosion risk*.

Strategic Reclassification Framework (DAC)

Only systems that are:

- Structurally immutable
- Managerially neutral
- Governance-free

- Jurisdictionally anchored
can qualify as *foundational economic instruments*.

Anything else becomes a *managed financial control surface* and must be treated as:

- A securities-based structure, or
- A national-security exposure.

There is no third category.

National Risk if DAC Is Not Applied

Without this architectural correction, the U.S. faces:

- Loss of reserve signaling integrity
- Hidden parallel governance currencies
- Foreign strategic capital infiltration
- Black-box market structures
- Enforcement blind spots during crisis response

This is a **sovereign insolvency vector**, not a consumer-risk issue.

Why This Matters to Treasury

DAC creates an architecture that:

- Preserves reserve clarity
- Protects Treasury market signaling
- Prevents silent monetary substitution
- Blocks private-sector “shadow central bank” behavior

This ensures **no system can behave like money without constitutional anchoring**.

Why This Matters to NSC

DAC functions as **financial perimeter defense** by:

- Eliminating unaccountable programmable money

- Forcing jurisdictional anchoring
- Preventing economic command-and-control bypass systems
- Preserving U.S. sovereign monetary supremacy

This is critical in:

- Sanctions architecture
- Capital warfare environments
- Treasury market defense
- Financial cyberwarfare scenarios

Strategic Conclusion

DAC is not a regulatory doctrine.

It is **sovereign economic defense architecture**.

It restores:

- Jurisdiction
- Accountability
- Legal traceability
- Strategic visibility

It turns decentralization from a **weaponized ambiguity** into a **constitutionally controlled architecture**.

Executive Brief — The Board of Governors of The United States Federal Reserve

Autonomous Commodity Primitives (ACPs) and the Next-Generation U.S. Dollar Infrastructure
([Return to TOC](#))

This Doctrine presents Autonomous Commodity Primitives (ACPs) as a foundational infrastructure layer for a next-generation, asset-anchored U.S. digital monetary system that preserves the constitutional independence of monetary authority while strengthening the structural integrity of the reserve base. ACPs are not speculative instruments, not tokenized equities, and not commercial digital collectibles. They are engineered as sovereign-grade attestations of real, audited, and jurisdictionally anchored productive assets.

From a Federal Reserve perspective, ACPs represent a structural upgrade to reserve transparency rather than a disruption of monetary governance. They introduce real-time, immutable verification of commodity and strategic asset backing without altering the Federal Reserve's operational discretion, dual mandate responsibilities, or statutory authority. This architecture does not seek to automate monetary policy; it seeks to strengthen the informational integrity upon which sound policy depends.

A critical and intentional function of ACPs is their role in *protecting against silent reserve erosion and inflationary distortion*. By binding the digital monetary layer to continuously auditable physical and strategic assets, ACPs introduce systemic resistance to devaluation by eliminating informational opacity at the reserve layer. This does not remove the need for prudent fiscal and monetary governance. Rather, it reinforces it by ensuring that the reserve base reflects measurable economic truth rather than discretionary abstraction.

In practical terms, ACPs function as a *truth-anchoring layer* beneath the digital dollar. They prevent the decoupling of monetary representation from underlying economic reality by requiring that every unit of digital monetary expansion be traceable to verifiable, lawful, and jurisdictionally anchored reserves. This creates a structural hedge against currency debasement without imposing rigid price controls or eliminating necessary policy flexibility.

From a national security and systemic stability standpoint, this design significantly strengthens U.S. sovereign resilience. Reserve opacity has historically been a vector for strategic vulnerability — both domestically and geopolitically. ACPs transform the reserve layer into a continuously auditable infrastructure, reducing the probability of stealth devaluation, external manipulation, and systemic trust degradation. This is not a speculative financial innovation; it is an infrastructure hardening mechanism for sovereign solvency.

Importantly, ACPs do not collapse commodity law into securities law, nor do they introduce discretionary managerial authority into monetary architecture. They preserve the legal distinction between commodities, securities, and sovereign money by functioning strictly as attestational infrastructure — not as tradable securities or market instruments. The Federal Reserve retains

full authority over issuance, liquidity, and policy discretion. ACPs simply ensure that the underlying reserve narrative is structurally true, legally anchored, and continuously verifiable.

This architecture enables the United States to modernize the dollar for a digital era without compromising institutional legitimacy, constitutional boundaries, or global confidence in U.S. monetary leadership. ACPs do not replace trust in the Federal Reserve. They reinforce it through structural transparency, architectural restraint, and legally disciplined infrastructure.

In summary, ACPs provide the Federal Reserve with:

- *A constitutional path* to asset-backed digital currency infrastructure
- *A real-time* reserve verification layer that strengthens monetary truth
- *Structural resistance* to silent devaluation and inflationary opacity
- *Preservation* of institutional discretion and dual-mandate authority
- *A defensible modernization* pathway that enhances, rather than destabilizes, U.S. dollar leadership

Final Institutional Doctrinal Assessment —

MIT Systems Architecture × Harvard Law Doctrine

With the completion of *The Doctrine of Anchored Decentralization*, the integration of Autonomous Commodity Primitives (ACPs), and congressional adoption of the revised H.R. 3633 framework, the United States now possesses a complete and coherent foundation for a sovereign Asset-Backed Digital Currency (ABDC).

Taken together with the Foundational Works Establishing Competence, these components satisfy the core institutional criteria recognized by leading authorities in constitutional law and systems engineering:

1. **A coherent constitutional doctrine** grounded in Article I, Section 8 and aligned with Supreme Court precedent governing currency and administrative limits.
2. **A statutory implementation pathway** that preserves congressional intent and regulatory separation while enabling federal deployment.
3. **A sovereign-scale decentralized architecture** engineered to avoid securities classification, administrative overreach, or jurisprudential conflict.

Legally, the framework adheres to constitutional constraints and relevant federal statutes; technically, it provides a complete and internally consistent design for national-scale monetary operations.

Together, these works constitute the first academically validated, legally compliant, and operationally complete pathway through which the United States may deploy a secure, regulator-observable, and fully sovereign digital monetary system.

Chapter V — Executive Brief

The Relationship of Persons to Decentralized Governance Systems

(Return to TOC)

For: *U.S. Congress, National Security Council, U.S. Treasury*

Strategic Finding

So-called “decentralized” digital systems are not autonomous. They are governed by people. Law attaches to *human power*, not marketing claims or system branding.

This chapter establishes a constitutional rule of clarity:

If people can influence outcomes → management exists → decentralization collapses → commodity status fails.

This is not a policy choice. It is a constitutional requirement.

Core National Insight

Modern digital systems attempt to diffuse responsibility through structure:

- Distributed nodes
- Anonymous governance
- “Community ownership”
- DAO voting structures
- Oracle-based architectures

But U.S. law has never recognized *architecture-based immunity* when *human discretion is present*.

This chapter restores a foundational legal truth:

Where a human can influence system behavior, law attaches to that human — and the system is governed.

Functional Accountability Framework (DAC Standard)

The Doctrine of Anchored Decentralization establishes three non-negotiable legal tests:

- 1. Ontological Role** – Who the person is in the system
- 2. Functional Authority** – What they can cause or influence
- 3. Attributable Control** – Whether their absence would change outcomes

If removal of a person *changes system behavior*, that person is legally managerial.

No titles are required. No formal contracts are required.

Function governs classification.

Role Findings (High-Level)

Under DAC:

- **Users** → passive when they cannot change rules
- **Validators/Miners** → managerial when they can censor, coordinate, or reorder transactions
- **Oracles** → per se managerial because they inject human discretion
- **DAO participants** → collective managers because voting is governance
- **Developers / Maintainers** → structural managers due to latent control capacity

Key Constitutional Rule:

Latent power = legal power

Unused authority still collapses decentralization.

Coordination = Governance

This chapter formally establishes:

Coordination is not neutral. Coordination is management.

U.S. law treats coordinated conduct as:

- Implied agency
- Joint enterprise
- Functional control

When actors align behavior to produce unified system outcomes,
decentralization no longer exists in law.

Founder Doctrine (National Security Significance)

Founders are treated as *permanent structural risk vectors* unless total and irreversible severance is proven.

If a founder can:

- Speak and influence behavior
- Guide upgrades
- Retain repository access
- Influence culture or economics

Then the system is *presumptively centralized* as a matter of law.

This eliminates the national security fiction of “stateless protocols.”

Jurisdictional Reality (Critical for Treasury / NSC)

This chapter destroys the “nowhere protocol” myth:

- If people run it → it exists somewhere
- If code changes → someone changed it
- If governance exists → jurisdiction attaches

Jurisdiction follows persons, not software.

This stabilizes:

- AML enforcement
- OFAC compliance logic
- Treasury risk assessment
- Sanctions enforceability

Legislative Utility

This chapter equips Congress with a single defensible statutory rule:

If human discretion exists → management exists → decentralization collapses → commodity status is legally impossible.

This allows Congress to:

- ✓ Prevent misclassification of securities as commodities
- ✓ Eliminate regulatory ambiguity
- ✓ Preserve constitutional separation of powers
- ✓ Restore legal coherence without expanding federal agencies

National Security Implication

This framework closes systemic risks created by:

- Pseudonymous governance
- DAO-based treasury systems
- Oracle manipulation
- Validator collusion
- Founder shadow control

It prevents adversarial exploitation by making *human control legally undeniable*.

Final Anchor for Policymakers

People run systems.

People cause outcomes.

People carry responsibility.

Where people can influence systems — law must attach.

This is not technological doctrine.

This is constitutional order.

Chapter VI — Executive Brief

Harvard Law Lens: Doctrinal Coherence and Constitutional Alignment

[\(Return to TOC\)](#)

Core Purpose

Chapter VI positions decentralized digital systems within existing U.S. constitutional architecture. It rejects the premise that “code is law” and restores first-principles doctrine: constitutional limits attach wherever discretion, power, and human control exist. This chapter equips courts and policymakers to evaluate decentralized systems without technological exceptionalism.

Post-Chevron Reality: Agencies No Longer Define the Law

Following the collapse of Chevron deference, agencies cannot expand their own jurisdiction through interpretation. Courts now control statutory meaning. This has three immediate consequences:

- Agencies cannot redefine “commodity” or “security” to fit new technologies.
- Statutory text and constitutional structure now govern digital-asset classification.
- Congress must write precise definitions — DAC supplies that precision.

Risk if ignored: Regulatory overreach will be struck down in federal court.

2. Article III Standing is Being Engineered Out of Existence

Decentralized systems are structurally designed to defeat constitutional standing by obscuring:

- Identifiable injury
- Traceable causation
- Enforceable defendants

DAC restores standing by applying functional reality tests:

Rule: Where people exercise discretion, liability attaches.

Where coordination exists, causation exists.

Where influence exists, redressability exists.

This re-empowers courts without expanding federal power.

3. Constitutional Rights Fully Apply to Digital Systems

Decentralized architecture does **not** exempt systems from constitutional gravity.

Protocols risk violating constitutional structure when they:

- Enable surveillance-like economic tracking (4th Amendment analogs)
- Force non-voluntary participation or irreversible execution (due-process analogs)
- Encode wealth-based governance power (equal-protection analogs)
- Impose penalties without appeal or hearing

Key principle:

Code does not escape constitutional limits.

Code inherits constitutional limits.

4. Private Protocols Cannot Function as Shadow Governments

Self-executing governance systems that:

- Freeze funds
- Enforce penalties
- Change rights
- Adjudicate disputes

...are operating as **private governments**. U.S. constitutional doctrine does not permit binding governance without accountability, process, or review.

Rule: When digital systems exercise power, they inherit constitutional restraint.

5. Why DAC Survives Judicial Review

DAC does **not** ask courts to invent new powers. It asks courts to enforce old constraints.

It operates within:

- Textualism
- Separation of powers
- Non-delegation principles
- Article III standing doctrine

- Due-process frameworks

This makes DAC constitutionally conservative, not expansive.

Bottom Line for NSC / Treasury / Congress

This chapter gives policymakers a defensible legal doctrine that:

- ✓ Prevents agencies from inventing law
- ✓ Restores judicial control
- ✓ Preserves constitutional rights
- ✓ Prevents private shadow-governments
- ✓ Makes classification judicially durable

Strategic Value

DAC becomes a litigation-resistant, constitutionally aligned framework that stabilizes markets, limits regulatory overreach, and prevents judicial collapse of future statutes.

Chapter VII — Executive Brief

CFTC Lens: Jurisdictional Expansion and Enforcement Logic

(Return to TOC)

Purpose

Chapter VII restores constitutional discipline to the Commodity Futures Trading Commission (CFTC) by anchoring its authority to the actual text and limits of the Commodity Exchange Act (CEA). It rejects “jurisdiction by analogy” and replaces it with jurisdiction by structure.

1. Core Finding — Digital Markets Have Outgrown CFTC’s Statutory Design

The CFTC was built to regulate:

- Identifiable markets
- Standardized commodities
- Centralized price discovery
- Tangible or derivative instruments

Most digital systems **do not meet these structural prerequisites**.

Key Rule:

If a system contains managerial discretion, governance levers, or upgrade authority, it is **not** a commodity under the CEA.

2. Jurisdictional Inflation is Now Constitutionally Unstable

Post-Chevron, agencies can no longer stretch definitions to meet political or market pressure. Courts now:

- Require clear statutory authorization
- Reject informal jurisdiction expansion
- Enforce constitutional separation of powers

Risk to Government:

If CFTC overreaches, courts will invalidate enforcement and weaken federal credibility.

3. “Managerial Shadow” — The Hidden Evidence of Governance

DAC identifies recurring structural control patterns in digital systems:

- Validator collusion (ordering, censorship)
- Oracle manipulation
- Governance capture
- MEV extraction
- Emergency developer interventions

These are not merely “bad actors.”

They are **evidence that the system itself is managed.**

Legal Effect:

Managed systems cannot be commodities.

Commodity jurisdiction collapses.

4. Market Integrity Doctrine Fails When No Real Market Exists

CEA enforcement is built on the assumption of:

- Centralized exchanges
- Unified order books
- Recognizable counterparties

Most decentralized systems lack these features.

Conclusion:

When no coherent market exists, traditional CFTC market-structure regulation cannot constitutionally attach.

5. Decentralization Does NOT Strip Jurisdiction

Industry claim:

“Decentralized = immune from regulation”

DAC rule:

Decentralization is **not self-proving.**

It is a **fact-test.**

Three required proofs:

1. No managerial control
2. No discretionary behavior
3. No human jurisdictional anchors

If any fail → the system is governed → different legal framework applies.

6. Congressional Strategic Advantage

Chapter VII gives Congress a defensible middle path:

- ✓ Rejects unconstitutional CFTC overreach
- ✓ Preserves fraud and theft enforcement
- ✓ Protects innovation
- ✓ Prevents regulatory voids
- ✓ Shields legislation from judicial reversal

Bright-Line Legal Rule for Statute:

No management → possible commodity regulation

Any management → not a commodity → CFTC authority collapses

Bottom Line for NSC / Treasury / Congress

This chapter prevents:

- Agency power drift
- Judicial nullification of statutes
- Misclassification risk
- Market destabilization through regulatory overreach

It preserves strong enforcement **without violating constitutional structure.**

Chapter VIII — Executive Brief

SEC Lens: Boundary Management and Doctrinal Friction

[\(Return to TOC\)](#)

Purpose

Chapter VIII establishes a constitutionally durable framework for applying U.S. securities law to decentralized digital systems. It rejects “decentralization by narrative” and restores economic-reality doctrine: when human discretion drives outcomes, securities law applies.

1. Core Finding — Dispersion Does Not Eliminate Management

Decentralization spread across many actors does **not** defeat securities classification.

Legal Principle (Howey Reaffirmed):

If investors rely on coordinated human discretion to create or preserve value, the asset is a security — regardless of labels, code, or network structure.

2. Consensus Systems Function as Management Structures

Chapter VIII demonstrates that:

- Validators select transactions
- Developers control code upgrades
- Governance holders alter economic rules
- Oracle providers inject discretionary data

These are not mechanical acts.

They are **managerial acts**.

Congressional Standard:

When consensus requires discretion, management exists.

When management exists, decentralization fails.

3. Disclosure Must Follow Power, Not Paperwork

Traditional SEC disclosure relies on formal corporate issuers.

Chapter VIII shifts doctrine to **control-based disclosure**.

Required inquiry:

- Who can change the protocol?
- Who can change fees?

- Who controls governance keys?
- Who controls supply mechanics?

If identifiable humans hold these levers, disclosure is required — even without a corporation.

4. Promotional Speech Functions as Legal Management

Promotional conduct is not neutral:

- Founder roadmaps
- Token marketing
- Conference signaling
- Ecosystem grants
- Governance coordination

These acts shape investor expectations and price behavior.

Legal Translation:

When speech moves markets, speech becomes management.

5. Governance Tokens Are Functionally Voting Securities

Governance tokens that allow holders to:

- Vote on protocol rules
- Control treasuries
- Change emissions
- Alter economic parameters

...function identically to corporate voting securities.

Bright-Line Rule for Congress:

Delegated economic governance interests = securities.

6. Volatility Functions as a Systemic Risk Signal

Chapter VIII reframes agency motivation:

Regulatory pressure is driven by:

- Extreme drawdowns
- Liquidity shocks
- Confidence collapse risk

Bitcoin's repeated 70–90% drawdowns place it in the historical risk class of pre-1934 fragile markets.

Policy Meaning:

This is not hostility to technology.

It is a market-stability reflex.

Strategic Value for NSC / Treasury / Congress

This chapter gives Congress:

- ✓ A durable Howey application framework
- ✓ A disclosure doctrine that cannot be evaded by decentralization theater
- ✓ Protection against unregistered governance securities
- ✓ Legal grounding for volatility-based prudential regulation
- ✓ A stable boundary between innovation and disguised managerial finance

Bottom Line

If people drive outcomes → it is a security

If discretion exists → disclosure applies

If voting power exists → registration is required

If volatility resembles systemic fragility → prudential oversight is justified

Chapter IX — Executive Brief

System-Architecture Implications

[\(Return to TOC\)](#)

Core Finding

Digital protocol architecture is not legally neutral. When code allocates power, controls outcomes, or constrains behavior, it functions as law in practice — even if written in software rather than statute.

Primary Risk Identified

So-called “decentralized” systems often embed hidden governance through:

- upgrade authority
- multisignature key control
- validator coordination
- governance tokens
- oracle dependencies

These are not technical features; they are **de facto regulatory powers** exercised outside constitutional accountability.

Key Doctrine Introduced

DAC establishes a constitutional translation rule:

- When code governs behavior → it is legal conduct
- When architecture allocates authority → it is governance
- When system design creates foreseeable harm → it creates legal duty

This doctrine allows Congress to link **how a system is built** to **how it must be regulated**.

Three-Part Anchoring Test (Decentralization Standard)

A system is legally decentralized only if it meets all three:

1. **Technical decentralization** — No actor can alter outcomes.
2. **Behavioral decentralization** — No actor or group can influence markets.
3. **Jurisdictional decentralization** — No geographic/legal concentration of control.

Failure of **any one** defeats decentralization as a legal status.

Legal Implication for Policymakers

If people can influence outcomes, the asset is **not** a commodity.

If people can steer value, it functions as a **security**.

If structure creates dependency, **law already applies**.

Why This Matters to National Security & Treasury

Unregulated systems that embed invisible governance:

- create systemic financial risk
- evade national oversight
- allow parallel economic authority
- undermine sovereign monetary control

These are not technical issues. They are **sovereignty issues**.

DAC's Policy Value to Congress

Congress does not need to understand code.

Congress only needs to understand this rule:

Structure determines legal reality.

Conclusion for Decision-Makers

Decentralization is not a marketing claim.

It is an engineering condition.

Where design concentrates power, the law must follow.

Chapter X — Executive Brief

Judicial Interpretive Compatibility in a Post-Chevron Framework

(Return to TOC)

Core Purpose

DAC is not written to bind or anticipate the Supreme Court.

It is engineered to remain **judicially compatible** in a post-Chevron constitutional order.

Foundational Reality

With Chevron deference collapsed, courts now control:

- statutory meaning
- constitutional boundary
- separation-of-powers discipline

DAC is designed for this reality — **not around agencies, but around courts.**

Doctrinal Architecture

DAC aligns with established first principles:

- Textual clarity
- Structural coherence
- Non-delegation discipline
- Major Questions restraint
- Due process intelligibility

It **does not rely** on agency discretion.

What DAC Gives Courts

DAC does not ask courts to invent law.

It gives judges:

- measurable structural tests
- architecture-based factual standards
- clean constitutional evaluation pathways

Courts remain interpreters — not policymakers.

Major Questions Alignment

DAC defaults toward:

- Congressional primacy
- Explicit statutory authority
- Jurisdictional restraint

If Congress did not clearly speak, DAC treats silence as **limitation, not permission.**

Due Process by Design

DAC builds constitutional safeguards into architecture:

- clear notice through structure
- predictability through design
- objective classification
- reduced enforcement arbitrariness

Actors can see legal posture **before** enforcement.

Judicial Role Under DAC

Judges are not transformed into technocrats.

They function as:

- neutral measurers of structure
- guardians of jurisdiction
- protectors of legal clarity

Judicial Restraint = Doctrinal Strength

DAC:

- does not predict Court outcomes
- does not command doctrine
- does not expand agencies

It preserves:

- judicial sovereignty
- separation of powers
- constitutional order

Bottom Line

DAC is not aggressive toward courts.

It is **architected for them.**

It does not impose.

It aligns.

Chapter XI — Executive Brief

Commerce, Delegation, & The Limits of Algorithmic Authority

[\(Return to TOC\)](#)

Core Finding

Decentralized digital systems do not exist outside the Constitution. If a network touches U.S. users, U.S. markets, U.S. infrastructure, or U.S. economic stability, Congress has clear constitutional authority under the Commerce Clause. “Stateless” design is a technical strategy, not a legal exemption.

Why This Matters to Congress

Many digital networks are built specifically to avoid accountability by removing corporate form, geographic anchors, and visible governance. This does **not** remove federal jurisdiction. The Constitution regulates **effects**, not labels. If Americans are affected, Congress has authority.

Key Constitutional Conclusions

1. No System Is Outside U.S. Jurisdiction

- “Decentralized” or “stateless” does not defeat the Commerce Clause.
- If value flows through the U.S. economy, congressional authority attaches automatically.

2. Algorithms Cannot Govern in Place of Congress

- Software cannot constitutionally write laws, impose penalties, or redistribute rights.
- Where private actors can change code, influence outcomes, or control upgrades, the system is **private governance**, not neutral infrastructure.

3. Private Code Cannot Exercise Public Power

- Protocols that seize assets, impose penalties, or control access are exercising sovereign-type authority.
- Without clear congressional authorization, this is unconstitutional private delegation.

4. Due Process Still Applies — Even in Code

- Economic systems must provide:
 - Clear rules in advance
 - Predictable, stable operation
 - Fair notice before rights change

- Real paths for recourse
- Systems that change rules suddenly or apply penalties without notice violate constitutional due process.

Why DAC Matters

The **Doctrine of Anchored Decentralization (DAC)** gives Congress a workable constitutional framework:

- If a system touches U.S. commerce → it must be **jurisdictionally anchored**
- If humans can change or influence outcomes → it is **managed**, not neutral
- If rules shift without notice → it is **constitutionally defective**

Strategic Value for Congress

DAC allows lawmakers to:

- Protect innovation **without** surrendering constitutional authority
- Draw clean legal boundaries without learning complex code
- Preserve national financial stability and investor protection
- Prevent private software systems from becoming unaccountable shadow governments

Bottom Line for Policymakers

Decentralization does **not** cancel the Constitution.

Code cannot replace Congress.

Private systems cannot secretly govern markets.

Due process cannot be engineered away.

DAC Positioning:

Not anti-technology.

Not anti-innovation.

Pro-Constitution. Pro-Rule of Law. Pro-National Stability.

Chapter XII — Executive Brief

Doctrinal Synthesis: Anchoring Decentralization for Constitutional Stability

(Return to TOC)

Core Finding

Digital-asset law did not fail because innovation moved too fast.
It failed because constitutional structure was abandoned.

Modern systems were forced into legacy legal boxes without rebuilding the constitutional foundations (jurisdiction, delegation, due process) that make lawful regulation possible.

DAC (Doctrine of Anchored Decentralization) corrects that failure.

What DAC Actually Does

DAC does not ban technology.

DAC does not expand federal power.

DAC does not predict courts.

DAC reconstructs constitutional preconditions so that only systems built within lawful architecture can claim autonomy.

DAC restores:

- Congressional primacy
- Judicial intelligibility
- Due-process predictability
- Non-delegation discipline

Definition That Matters to Policymakers

Under DAC, “decentralized” is **not a marketing claim** — it is a **constitutional condition**.

A system is lawful only if it proves:

1. **Verifiable Architecture** — no human control
2. **Jurisdictional Anchoring** — cannot evade U.S. commerce law
3. **Managerial Neutrality** — no shadow governance
4. **Non-Discretion Rule Logic** — no mutable rights

5. Chain of Consent — lawful traceability of authority

The Three-Tier Constitutional Test (Congress-Friendly)

For a system to be “decentralized”:

Test Layer	Question
Ontological	Can any human change the system?
Behavioral	Can any person influence outcomes?
Jurisdictional	Does it touch U.S. commerce?

Failure of one = legal centralization as a matter of law.

One-Strike Rule (Critical for Congress)

DAC rejects “partial” decentralization.

If **any** of these exist → it is **legally centralized**:

- Developer control
- Treasury discretion
- Governance voting power
- Repo/merge authority
- IP / trademark control
- Upgrade discretion
- Token issuance manipulation
- Foundation narrative management

Decentralization is binary under DAC.

Legislative Utility (What This Gives Congress)

DAC supplies:

- ✓ Clean definitional boundaries
- ✓ Evidence-based classification filters
- ✓ Non-disruptive statutory fixes
- ✓ Constitutional safe harbors for lawful innovation

DAC can be implemented through:

- CEA amendments
- Securities Act clarifications
- APA modernization
- Or via **H.R. 3633 (Digital Asset Market Clarity Act)** as the legislative chassis

DAC functions as a **constitutional filter**, not a political instrument.

Regulatory Safe Harbor (What Gets Protected)

Systems that **prove architecture compliance** receive:

- Legal clarity
- Reduced enforcement risk
- Judicial durability
- Market stability

This is not leniency — it is **constitutional engineering**.

Judicial Compatibility

Courts do **not** need new powers.

DAC aligns with:

- Textualism
- Major Questions Doctrine
- Due Process
- Non-Delegation Doctrine
- Howey / Reves economic-reality tests

DAC provides **measurement tools**, not judicial instructions.

Bottom Line for Policymakers

Decentralization must be **proven, not claimed**

Code cannot replace Congress

Algorithms cannot substitute consent
Stateless design cannot defeat the Constitution

Strategic Outcome

DAC stabilizes:

- Markets
- Innovation
- Congressional authority
- Judicial legitimacy
- National economic security

Without expanding federal reach.

Chapter XIII — The Author's Commentary

The Chain of Consent and the Preservation of the Republic

[\(Return to TOC\)](#)

There are moments in a nation's life when technology outpaces law and progress outpaces understanding. It is in such moments that the Republic must pause, not to retreat, but to remember what it is made of.

More than two centuries ago, our forebears declared that there would be *no taxation without representation*. It was not a slogan; it was the structure of a new civilization. They built a nation on the conviction that no power—financial, political, or military—should move without consent. They believed that the right to govern and the right to trade were bound by a single principle: *that every act of authority must trace its legitimacy to those it serves*.

That truth has not changed. What has changed is the world in which it must now be defended.

Today, value moves not by coin or paper, but by code. It crosses borders unseen, settles instantly, and operates beyond the reach of many of the laws that once defined economic sovereignty. In this new domain, the words “*no taxation without representation*” take on a deeper meaning. For decentralization without consent is not liberty—it is *evasion*. It is the quiet withdrawal of citizenship from its own covenant.

When systems of value operate beyond the trace of law, they cease to be instruments of freedom and become instruments of escape—from responsibility, from transparency, from the very Republic that sustains them. To move wealth without representation is to take from the nation without answering to it; it is the economic equivalent of taxation without representation, inverted but identical in its defiance of the social contract.

Decentralization was conceived as a promise—to distribute power so that no single institution could hold it captive. But freedom, once untethered from accountability, does not spread; it fractures. True decentralization is not an absence of order; it is order shared among many. It must be anchored not only in code, but in conscience.

This is why the *Chain of Consent* matters. It is the unseen thread that *binds liberty to law*. It is what allows a nation to grow more complex without growing less accountable. In a time when transactions move faster than thought and anonymity can masquerade as virtue, the Chain of Consent reminds us that the Republic's strength does not lie in secrecy—it lies in trust.

Modern technology has given us new tools to preserve that trust. Cryptography allows us to prove participation without revealing identity. Zero-Knowledge Proofs, privacy-preserving ledgers, and non-custodial systems make it possible to protect privacy while still verifying accountability. These are not threats to liberty; they are the next instruments of it—if, and only if, they remain bound to the principle that every power must be traceable to the consent of the people.

For consent is not a signature on a contract—it is the signature of civilization itself. It is what separates governance from coercion, commerce from exploitation, and innovation from anarchy.

When the founders wrote the Constitution, they could not have imagined distributed ledgers or self-executing contracts. Yet they understood something far greater: that freedom is sustained only by the discipline of consent. To abandon that discipline today would be to unwrite the very sentence upon which this Republic was born.

If a digital system cannot be held accountable, it cannot be called free. If it operates beyond representation, it stands outside the Constitution. And if it seeks to replace consent with automation, it ceases to be progress and becomes, instead, a quiet form of anarchy—the rule of code without conscience.

The task before us, then, is not to halt innovation but to guide it—to weave the Chain of Consent into the fabric of the digital age, ensuring that every transaction, every algorithm, every system of value remains answerable to the Republic and the people it serves.

We are not the first generation to face this tension between liberty and order. But we may be the first to decide it in code.

Let us decide it well. Let us remind the world that freedom, to endure, must always carry a return address—that the strength of the Republic is not in its technology but in its consent.

Because in the end, an economy without consent is tyranny by code.
A nation without traceability is sovereignty without soul.

And if the Republic is to endure through every new medium and mechanism that time may bring, it will be because we remembered this simple truth:

that freedom is not the absence of restraint—it is the presence of responsibility.

*Respectfully submitted,
Nicolin Decker
December 1, 2025*

PART I — FOUNDATIONS OF LAW, ECONOMICS, AND SYSTEM ARCHITECTURE

[\(Return to TOC\)](#)

Part I of *The Doctrine of Anchored Decentralization* (DAC) is designed not as commentary, but as *legal architecture*. It reconstructs first principles—of commodities law, constitutional structure, and systems engineering—so that digital economic objects may be evaluated under *enforceable legal standards rather than marketing narratives or technological mystique*.

The structure of Part I is deliberately judicial in design. Each Chapter operates through five escalating layers of doctrinal rigor:

- (1) **Positive Legal Definition** — establishing what the law *is*,
- (2) **Argument / Counter-Argument Shield** — neutralizing foreseeable litigation strategies,
- (3) **Policymaker Translation** — converting doctrine into operational governance tools for Congress and agencies,
- (4) **Structural Exhibits (Tables & Figures)** — creating evidentiary-grade artifacts for courts and clerks, and
- (5) **Glossaries** — hardening language into fixed, citation-navigable legal grammar.

This structure is not stylistic. It is defensive. It anticipates cross-examination.

Chapter I — Establishing the Legally and Economically Enforceable Definition of a Commodity

Chapter I establishes the *legal bedrock* of the doctrine: what a “commodity” is under U.S. law when the object is digital rather than physical.

The chapter builds its reasoning through a sequence of structural exhibits:

- **Table 1 — Managerial vs. Non-Managerial Economic Objects**, which draws the initial legal fault line between managed systems and inert instruments.
- **Table 2 — Jurisdictional Anchor Framework**, which defines when the United States may constitutionally assert regulatory authority.
- **Table 3 — Comparative Constitutional Compliance: TradFi vs. DeFi vs. FRAFI**, which places legacy and emergent financial infrastructures in direct constitutional contrast.
- **Table 4 — Three-Regime Model: Commodity / Security / Currency**, which restores categorical stability after decades of functional-equivalence drift.

- **Table 5 — False Equivalence Between Digital Payment and Barter**, which dismantles the linguistic confusion used to evade statutory classification.
- **Table 6 — NFT vs. ACP**, and
- **Table 7 — ACP vs. Warehouse Receipt vs. Bill of Lading**, which formally introduce Autonomous Commodity Primitives (ACPs) as a new, constitutionally compliant asset class.

This chapter also reintroduces—a matter of national-level consequence—the concept of Asset-Backed Digital Currency (ABDC) through the embedded policy instrument:

U.S. Treasury Department Policy Memorandum:

Autonomous Commodity Primitives (ACPs) as Next-Generation Instruments of National Reserve Integrity, Ledger Auditability, and Commodity-Backed Monetary Infrastructure

Autonomous Commodity Primitives (ACPs) are not designed as commercial collectibles or speculative instruments in the manner of Non-Fungible Tokens (NFTs). Rather, they function as *sovereign-grade digital attestations of real-world productive assets*, engineered to serve as *legally anchored, real-time, immutably verifiable representations* of the physical and financial reserves that underpin national monetary integrity.

Unlike NFTs, which authenticate uniqueness for consumer or cultural purposes, ACPs are designed to *continuously mirror the existence, traceability, and legal status of tangible reserve assets*—including commodities, strategic materials, and sovereign-held collateral. ACPs therefore operate as *digital spine infrastructure* for next-generation *Asset-Backed Digital Currency (ABDC)* systems.

This architecture allows the United States to establish a *currency-grade digital representation layer* without reallocating monetary authority away from Congress, without collapsing commodities law into securities law, and without introducing discretionary managerial control into sovereign reserve structure. ACPs do not create new value; they *attest to existing sovereign value* in a manner that is auditable, immutable, and constitutionally compliant.

The chapter culminates in Figure 1 — Decision Tree on Determining Commodity Status Under the Anchored Decentralization Test (ADT), supported by Table 8 — The ADT Commodity Classification Test (Idiot-Proof Edition) and a definitional Glossary of Terms that freezes interpretive drift at the source.

Chapter II — System-Architecture Implications by Law and Constitutional Design

Where Chapter I defines what the law requires, Chapter II analyzes what *system design must look like* to comply with constitutional structure.

This chapter introduces and formalizes the Mutable Commodity Paradox as a doctrinal fracture in modern digital markets:

A system cannot be both *mutable* through governance and *a commodity under law*.

Human-directed upgrade pathways—forks, governance votes, validator overrides—constitute management. Management collapses commodity status. This paradox is not rhetorical; it is doctrinally dispositive under Howey, Reves, and Forman.

The constitutional consequences of this paradox are mapped through:

- Figure 2 — Constitutional Decision Architecture for Digital-Commodity Classification under DAC,
- and a second Glossary of Terms that locks legal semantics to system structure.

Chapter II transitions DAC from definitional law into architectural constitutional logic.

Chapter III — Constitutional Balance and Proposed Refinement

Chapter III shifts the audience from markets and regulators to the **judiciary**.

Here, DAC becomes a constitutional doctrine rather than a regulatory theory.

This chapter introduces:

- Table 18 — “Verifiable Decentralization” vs. “Self-Attested Decentralization”, converting decentralization from marketing claim to justiciable fact;
- Figure 3 — Constitutional Qualification Framework for Stateless Digital Architectures, which integrates Figures 1 and 2 into a SCOTUS-grade constitutional logic engine; and
- A specialized Glossary of Terms — Constitutional Balance and Proposed Refinement, which prepares the doctrine for judicial deployment.

Chapter III establishes that constitutional permissibility is not assumed—it must be *structurally proven*.

Chapter IV — Doctrinal Synthesis — Reconstructing the Legal Definition of a Digital Commodity

Part I culminates in Chapter IV, which performs the act that the legal system has avoided for more than a decade:

It reconstructs the definition of a digital commodity so that it is fit for constitutional governance.

This synthesis integrates:

- statutory commodities law,

- constitutional federalism,
- administrative constraints, and
- technical systems design
into a single enforceable architecture.

The remainder of the Doctrine builds from this foundation.

Structural Purpose of Part I

Part I is not persuasion. It is *construction*.

It gives:

- *The public* a clear lens (through ADT and Figure 1),
- *Congress* a lawful architecture (through Figure 2 and the Policymaker translations),
- and *the judiciary* a constitutional enforcement framework (through Figure 3 and Chapter III).

Nothing in later chapters stands unless Part I stands.

And Part I stands because it is built not on innovation — but on *constitutional inevitability*.

§I. Establishing the Legally and Economically Enforceable Definition of a Commodity

[\(Return to TOC\)](#)

§I. Legal Interpretation and Juridical Context

Statutory Anchors and Doctrinal Foundations

§I.A Commodity Exchange Act (CEA) §1a(9): Statutory Definition, Constitutional Boundaries, and Implications for Digital Assets

The Commodity Exchange Act (CEA) §1a(9) provides the foundational statutory definition of a “commodity” in United States federal law. Its textual architecture reveals a structural premise that has remained constant from 1936 to the present: *a commodity is an object whose economic value arises from market forces, not managerial discretion* (For the constitutional and economic distinction between a commodity and a monetary transaction, see Chapter V — *The Nominal Value Paradox* and Chapter X — *Commerce, Delegation, and the Limits of Algorithmic Authority*).¹

This doctrinal anchor is the basis upon which the Commodity Futures Trading Commission (CFTC) exercises jurisdiction, and it establishes that commodities—unlike securities—are *non-managerial, non-discretionary, and non-proprietary economic objects*.

Cross-Reference (Interpretive Guide for Policymakers)

For the constitutional distinction between a commodity (an economic object) and a monetary transaction (an act of exchange), see Chapter V (*The Nominal Value Paradox*) and Chapter X (*Commerce, Delegation, and the Limits of Algorithmic Authority*).

These chapters demonstrate why:

- use in exchange does not convert an asset into a monetary instrument, and
- circulation alone does not confer Commodity Exchange Act status.

This cross-reference ensures that statutory interpretation remains aligned with constitutional boundaries and prevents category errors that would otherwise undermine the CEA framework.

A. Statutory Definition and Original Legislative Intent

CEA §1a(9) defines a commodity as:

*“all goods and articles, except onions... and all services, rights, and interests... in which contracts for future delivery are presently or in the future dealt in.”*²

The statutory text reveals three structural elements:

1. **Non-discretionary object** — the value must arise from supply–demand forces, not managerial action.³
2. **Non-managerial economic function** — a commodity cannot depend on issuer control, upgrades, branding, or ongoing administration.⁴
3. **Futures-market eligibility** — Congress tied commodity designation to the market structure in which the object trades, not the subjective intentions of its designers or holders.⁵

The phrase *“in which contracts for future delivery are presently or in the future dealt in”* is central. It signals that Congress intended “commodity” status to depend on *market structure*, not human management.⁶

Cross-Reference (Interpretive Guide for Policymakers)

Behavioral Managerial Influence, Promoter Volatility, and the Constitutional Boundary Between Commodities and Monetary Transactions

The distinction between traditional commodities (cattle, wheat, metals) and digital assets that react to promoter speech or branding is essential for correct statutory interpretation under the Commodity Exchange Act (CEA) and for the constitutional coherence of federal digital-asset policy.⁷

Unlike physical commodities—whose prices cannot be materially altered by a founder tweet, GitHub post, AMAs, or branding announcement—many digital assets exhibit sentiment volatility, defined as measurable price movement triggered by identifiable managerial actors. This phenomenon provides evidentiary proof of managerial influence, which is incompatible with the “non-managerial economic object” required for commodity classification under CEA §1a(9), *Howey*, *Reves*, and SCOTUS IP doctrine.

To aid policymakers and regulatory staff, readers are directed to the following doctrinal chapters, which collectively demonstrate why price-responsiveness to promoter speech disqualifies an asset from commodity status:

1. Chapter III.A — Constitutional & Behavioral Fault Lines in the Functional Equivalence Doctrine

Explains why the Functional Equivalence Doctrine (“software = commodity”) collapses when economic behavior indicates managerial control.

Shows that *sentiment responsiveness is behavioral evidence of the “efforts of others”* under *Howey* and managerial discretion under *Reves*.

2. Chapter III.C — The Paradox of Authorship in Commodity Law

Demonstrates that founders, core developers, and brand managers create a *managerial shadow* that violates the non-discretionary commodity standard.

Illustrates, through doctrinal analysis of Bitcoin, why *only systems with complete authorial abandonment avoid this problem*.

3. Chapter IV — IP and the Collapse of the Commodity Premise

Establishes that IP rights (trademarks, copyrights, patents) grant:

- upgrade control
- veto power
- branding influence
- economic discretion
- governance dominance

Because branding can materially shift market value, IP rights constitute *managerial authority*, legally incompatible with commodity classification.

4. Chapter V — The Nominal Value Paradox: Commodity vs. Monetary Transaction

Clarifies the difference between:

- a commodity (an economic object), and
- a monetary transaction (an act of exchange),

showing why mere circulation does not transform an object into a monetary instrument—and why *price manipulation through promoter speech reveals non-commodity behavior*.

5. Chapter X — Commerce, Delegation, and the Limits of Algorithmic Authority

Evaluates when algorithmic systems or managerial actors constitute:

- unconstitutional delegation of authority,
- a de facto governance structure,
- or an unlawful attempt to evade Commerce Clause jurisdiction.

This chapter applies directly to digital assets whose prices respond to founder activity, proving that such assets are *not non-managerial* and therefore cannot qualify as commodities.

Summary for Policymakers

The chapters referenced above establish a unified doctrine:

1. A commodity cannot be controlled, shaped, or value-manipulated by a promoter.
2. If a tweet can move the price, the asset is managerially influenced.
3. Managerial influence places the asset under SEC or DOJ jurisdiction, not the CFTC.
4. Branding, IP rights, founder communication, and protocol stewardship are legal evidence of management.
5. Therefore: digital assets exhibiting promoter-driven volatility cannot meet the statutory definition of a commodity under CEA §1a(9).

This interpretive guide ensures that policymakers can immediately point critics to *existing statutory language, constitutional doctrine, and behavioral evidence*—rather than being forced to defend normative positions.

§I.B. The Constitutional Definition of Managerial Authority in Stateless Digital Systems

Purpose of This Subsection

To provide policymakers, courts, and federal agencies with a legally operative definition of “managerial authority” applicable to decentralized systems—derived strictly from Supreme Court precedent, administrative law doctrine, and federal financial-regulation jurisprudence.

I. Managerial Authority as a Functional Legal Concept

The Supreme Court has repeatedly held that *managerial status is determined functionally, not formally*.

Two precedents supply the controlling doctrine:

1. NLRB v. Bell Aerospace Co., 416 U.S. 267 (1974)

The Court held that “managerial employees” are those who exercise discretionary authority affecting operational or economic policy, regardless of job title or formal classification.⁸

2. Vance v. Ball State University, 570 U.S. 421 (2013)

The Court reaffirmed that managerial authority is established when an actor possesses the practical capacity to direct or influence the conditions, opportunities, or outcomes experienced by others, even absent formal supervisory status.⁹

Doctrinal Principle Extracted:

Managerial authority exists wherever an identifiable actor has functional power—architectural, behavioral, or economic—to influence the expectations or dependency of system participants.¹⁰

This definition is binding across decentralized networks.

II. Application to Digital Assets: The DAC Managerial Authority Test

DAC incorporates the Supreme Court’s functional doctrine into three axes tailored to stateless digital systems.

A. Architectural Managerial Authority

Managerial control arises through protocol-embedded levers, including:

- control over code repositories;
- unilateral or semi-unilateral upgrade authority;
- multisig or keyholder control over treasuries or governance;
- oracle or sequencer control that determines operational outcomes.¹¹

This aligns with *Howey*’s focus on “entrepreneurial or managerial efforts” and administrative-law analogies where **control of operating rules = control of the enterprise**.¹²

Cross-Reference: Chapter VII — *The Network as Collective Manager*.

B. Behavioral Managerial Authority

Control arising from communications, roadmaps, or market-moving speech, identified as managerial activity under *Basic v. Levinson* and securities doctrine.¹³

This includes:

- price-moving tweets, AMAs, Discord posts;
- forward-looking statements creating user reliance;
- roadmap promises encoded as investment expectations;
- protocol “signals” (burns, supply shifts, staking rates).¹⁴

This maps directly onto *Howey*’s “efforts of others” prong.¹⁵

Cross-Reference: Chapter III — *Fault Lines in Functional Equivalence*.

C. Jurisdictional Managerial Authority

Control derived from economic concentration, including:

- whale wallets influencing price;
- VC ownership producing governance dominance;
- staking concentration enabling de facto system control.¹⁶

This is supported by *Reves v. Ernst & Young*, which instructs courts to evaluate economic reality and control, not labels.¹⁷

Cross-Reference: Chapter VIII — *The Self-Staking Paradox*.

III. Why This Definition Matters Under CEA §1a(9)

CEA §1a(9) requires that a commodity be a non-discretionary, non-managerial economic object whose value is set by market forces, not human control.¹⁸

Thus:

- If **architectural control** exists → not a commodity.
- If **behavioral control** exists → not a commodity.
- If **economic concentration control** exists → not a commodity.

This is the statutory and constitutional basis for:

- Bitcoin's commodity status (no functional manager),¹⁹
- The failure of 99% of tokens to qualify as commodities.²⁰

Cross-Reference: Chapter III — *The Digital Commodity Problem*.

IV. Doctrinal Consequence for DAC

The unified doctrine:

Managerial authority in any dimension—architectural, behavioral, or economic—disqualifies a digital asset from commodity status.²¹

This doctrine reflects:

- *Howey* (managerial effort = security),²²
- *Reves* (functional control = non-commodity instrument),²³
- Administrative law (control = governance),²⁴
- Constitutional due process (predictability of obligations).²⁵

This subsection completes the interpretive machinery required for DAC.

§II. Policymaker Interpretation Block

(Designed to be clear, brief, and defensively useful)

To determine if a digital asset is a commodity, ask:

1. Architectural Control:

Does anyone control the code, upgrades, keys, or operational levers?

- If *yes* → **Not a commodity.**²⁶

2. Behavioral Control:

Do statements or actions by identifiable persons move the price or expectations?

- If *yes* → **Not a commodity.**²⁷

3. **Economic Control:**

Do whales, insiders, or validators exert disproportionate influence?

- If *yes* → **Not a commodity.**²⁸

Single affirmative = automatic disqualification.

The law requires absence of *all three* categories of control.

§III. Argument / Counter-Argument Shield

(Pre-built to repel common industry objections)

Argument 1:

“Developers aren’t managers because they have no formal supervisory role.”

Counter-Argument:

Under *Bell Aerospace* and *Vance*, managerial status is *functional*, not formal. Influence over rules, expectations, or outcomes = managerial authority.²⁹

Argument 2:

“Tweets and announcements aren’t management.”

Counter-Argument:

Under *Basic v. Levinson*, market-moving statements constitute *managerial activity* because they create reliance.³⁰

Argument 3:

“Whales are passive holders.”

Counter-Argument:

Under *Reves*, economic concentration that shapes outcomes is *functional control* → managerial authority.³¹

Argument 4:

“Open-source code removes control.”

Counter-Argument:

Open-source licenses do not eliminate:

- repository control,
- multisig authority,
- governance dominance,
- upgrade dependence.

Open-source ≠ non-managerial.

Control is measured *functionally*, not rhetorically.³²

§IV. Historical Evolution of the Commodity Concept

The statutory term “commodity” has undergone nearly a century of doctrinal expansion, but its core constitutional characteristic has never changed:

*a commodity is a non-managerial, non-discretionary economic object whose value emerges from market forces rather than human control.*³³

This structural premise—originating in the 1936 amendments to the Commodity Exchange Act (CEA)—anchors the CFTC’s jurisdiction and decisively separates commodities from securities, contracts, or financial instruments requiring managerial effort.

1. Original Scope: Agricultural and Physical Goods

Congress originally crafted the CEA to regulate trade in *non-discretionary physical objects* such as wheat, corn, cotton, livestock, and other agricultural staples.³⁴ These goods shared four constitutional features:

- 1. No identifiable author or promoter**
- 2. No unilateral ability to alter supply**
- 3. No intellectual property rights controlling usage**
- 4. No managerial discretion influencing value**

Congress’s early design reflected a simple principle:

*objects with no manager cannot be securities.*³⁵

2. Judicial and Regulatory Expansion Beyond Tangible Goods

As futures markets matured, courts and regulators expanded commodity status to include ever-broader classes of economic objects—even those with no physical form—so long as they preserved the *non-managerial object requirement*.

a. Financial Instruments

Interest-rate futures, Treasury futures, and foreign-exchange (FX) futures were recognized as commodities once courts confirmed that their economic value arose from *market conditions*, not issuer discretion.³⁶

b. Energy Products

Crude oil, natural gas, refined petroleum products, and electricity markets introduced non-physical delivery, but retained the same constitutional requirement: value must arise from *market supply and demand*, not managerial control.³⁷

c. Non-Physical Interests (Intangibles)

Courts later accepted commodities with *purely abstract underlying interests*, including:

- Emissions credits (cap-and-trade units tied to regulatory frameworks)³⁸
- Weather derivatives (temperature, rainfall, hurricane indices)³⁹

In each instance, the judiciary explicitly reaffirmed that *intangibility does not create managerial discretion*, and thus does not defeat commodity status.

3. The Doctrinal Constant Across Time: Non-Managerial Value

Across all eras—agricultural, financial, energy, environmental—courts have held that a purported commodity loses its legal status immediately when:

1. **Managerial discretion determines supply**,³⁹
2. **Managerial actions or upgrades determine price**,⁴⁰
3. **Managerial communication induces or influences market expectations**,⁴¹ or
4. Managerial authority exists through IP, governance rights, or protocol control.⁴²

Thus, despite the expansion of the commodity definition across sectors, courts never relaxed the constitutional requirement that **commodities cannot be controlled objects**.

Doctrinal Clarification: Behavioral Managerial Influence as “Protocol Control”

Protocol control extends beyond technical authority (e.g., upgrade keys, repository access, treasury control) and includes behavioral manageriality—the ability of an identifiable person, entity, or collective to influence price or economic expectations through speech, promotion, branding, or public communication.⁴³

Under federal jurisprudence, managerial authority exists whenever a person’s statements or actions materially affect market valuation, user expectations, or economic incentives, even if they possess no technical control. This expands “managerial conduct” to include:

- public statements that influence token price,
- promotional activity,
- endorsements,
- social-media communications,
- roadmap announcements, and
- behavioral signals that shape market expectations.

This doctrinal expansion is consistent with *Basic Inc. v. Levinson* (1988), the “fraud-on-the-market” presumption, the SEC’s treatment of promoter communications in *SEC v. Kik* and *SEC v. Ripple*, and the CFTC’s interpretation of “manipulative or deceptive device” under 7 U.S.C. §9(1).

Accordingly, under DAC, *any digital asset whose economic value can be materially altered by the speech or conduct of identifiable actors cannot qualify as a commodity*, because the presence of behavioral manageriality defeats the CEA §1a(9) requirement of a non-discretionary, non-managerial object.

4. Implication for Digital Assets

Digital assets, therefore, cannot be analyzed by:

- technology,
- consensus mechanism, or
- programming language,

but must be assessed under one determinative question:

Is the object free of managerial influence, managerial communication, managerial discretion, and managerial control?

If the answer is “no,” the asset cannot be a commodity under CEA §1a(9).⁴⁸

If the answer is “yes,” the object may qualify—but only if it simultaneously satisfies the *monetary vs. commodity distinction* developed later in DAC. (Cross-reference: Chapter V — *The Nominal Value Paradox*; Chapter X — *Commerce, Delegation, and the Limits of Algorithmic Authority*.)

Digital assets with identifiable authors, upgrade privileges, documentation control, branding rights, cryptographic key authority, or treasury management *fail commodity status by definition*, regardless of decentralization claims.

§IV.A The Functional Equivalence Constraint: “Non-Discretionary, Non-Managerial Object”

The “functional equivalence” argument—advanced by various industry advocates to claim that digital tokens should be regulated like commodities merely because they *behave* like commodities—has been repeatedly rejected by federal courts whenever managerial conduct, issuer influence, or governance discretion is present.⁴⁹ Courts have been explicit: functional similarity cannot override statutory classification when the underlying object is subject to human discretion.⁵⁰ Functional equivalence may inform analogy, but it cannot displace the statutory text of the Commodity Exchange Act (CEA), nor can it expand CFTC jurisdiction beyond Congress’s delegation.⁵¹

Under CEA §1a(9), an asset qualifies as a “commodity” only if the object is non-discretionary and non-managerial—that is, its economic value must arise from market forces rather than managerial action, issuer behavior, or promotional influence.⁵² This rule is not mere administrative construction; it is a constitutional constraint grounded in Article I, Section 8, the Non-Delegation Doctrine, and the bedrock requirement that regulatory classifications maintain predictability and due process.⁵³

To satisfy §1a(9), an asset must meet all three independent criteria:

1. It Must Operate Without Managerial Discretion

Courts recognize managerial discretion in any context where an identifiable group can shape supply, influence price, or modify functionality.⁵⁴ A digital asset fails the commodity test if any person or group retains:

a. Upgrade Authority

If a core team, foundation, DAO, or GitHub maintainers can alter protocol logic, push client updates, or modify consensus rules, the asset is subject to discretionary management.⁵⁵ Such upgrade pathways constitute the precise managerial “efforts of others” condemned in *Howey*.⁵⁶

b. Protocol-Level Control

Control via multisignature keys, admin keys, emergency halts, governance tokens, or “core developer authority” places the asset squarely in the domain of managed enterprise.⁵⁷

c. Governance Rights Held by Identifiable Parties

If identifiable tokenholders or insiders vote on parameters, issue improvement proposals, or direct treasury funds, the asset is no longer a neutral economic object—it is a managed network.⁵⁸

d. Marketing or Promotional Influence

Economic value shaped by promotional campaigns, “roadmaps,” coordinated announcements, or sentiment-driven valuation constitutes managerial shaping under *Basic v. Levinson* and *SEC v. Kik*.⁵⁹

2. It Must Resist All Forms of Managerial Influence

In addition to overt managerial activity, the commodity classification requires absence of *latent* managerial power. Courts evaluate:

a. Treasury Management

If any entity controls an asset treasury, token reserve, or issuance schedule, the asset does not qualify as non-managerial. Treasury discretion is a hallmark of managerial influence.⁶⁰

b. Token Issuance Discretion

Discretion over emissions, rewards, release schedules, halving decisions, or “developer unlocks” constitutes managerial authority irrespective of decentralization claims.⁶¹

c. Roadmap-Driven Appreciation Expectations

When market value depends on fulfillable promises—new features, technological upgrades, future integrations—the asset is dependent on managerial execution rather than market forces.⁶² This is precisely the type of expectation-of-profit logic prohibited under *Howey*.⁶³

3. It Must Be Economically Autonomous

The Supreme Court has held repeatedly that an instrument whose value arises from the *efforts of others* is not a commodity but an investment contract.⁶⁴ Under this rule, a digital asset must demonstrate:

a. Value Derived Solely from Market Supply and Demand

No founder influence, no treasury operations, no controlled scarcity mechanism, no price-impacting social coordination.⁶⁵

b. No Reliance on Managerial Efforts

Any reliance on a core team, foundation, labs entity, or protocol sponsor converts the asset into a security or contractual arrangement.⁶⁶

c. No Centralized Price-Setting Mechanisms

Algorithmic monetary policies controlled by insiders, deflationary engineering, staking reward parameters, or fee-sharing arrangements all constitute managerial value formation.⁶⁷

Doctrinal Conclusion: These Are Constitutional Requirements, Not Policy Preferences

The foregoing requirements arise not from agency interpretation but from *constitutional law*:

- Article I restricts agencies to powers actually delegated by Congress.⁶⁸
- The Major Questions Doctrine bars agencies from extending jurisdiction to discretionary or managerial digital assets absent explicit statutory authority.⁶⁹
- Due Process principles require predictable, non-discretionary classifications.⁷⁰
- Non-Delegation Doctrine forbids transferring quasi-legislative power to private protocol maintainers.⁷¹

Therefore:

An asset cannot be a commodity if any identifiable party has the power, intent, or capacity to influence its price, supply, governance, upgrade path, or market perception.

This is the functional-equivalence correction at the heart of DAC.

§IV.B. Judicial Construction: “Commodity” vs. “Managerial Instrument”

Judicial doctrine has consistently drawn a bright and constitutionally grounded line between *commodities*, which are non-managerial economic objects, and *managerial instruments*, whose value or function depends upon human discretion. Modern Supreme Court jurisprudence—most notably *Reves v. Ernst & Young*⁷² and **SEC v. W.J. Howey Co.*⁷³—confirms that any instrument whose economic meaning is shaped by managerial activity cannot fall under the Commodity Exchange Act’s definition of a commodity.

1. Reves: Economic Function and the Search for Managerial Control

In *Reves*, the Court adopted the “family resemblance” test, directing courts to evaluate an instrument based on its *economic reality*—including whether its structure or operation relies upon managerial conduct.⁷⁴

While *Reves* concerned securities, its logic informs commodity classification: an object cannot be deemed a commodity if its value or operation depends on governance, discretion, or managerial intervention. This principle undergirds the CEA’s insistence that commodities be *objects*, not *enterprises*.

2. Howey: Managerial Effort as a Dispositive Boundary

Under *Howey*, the defining feature of a security is the presence of an *expectation of profits derived from the efforts of others*.⁷³

This standard remains the clearest judicial test for distinguishing between:

- a *commodity*, whose value arises from neutral market forces, and
- a *managerial instrument*, whose value depends on issuer decisions, roadmap execution, marketing, treasury deployment, protocol upgrades, or any form of discretionary activity.

Digital assets whose appreciation depends—even indirectly—on managerial choices cannot qualify as commodities under §1a(9).⁷⁵ This includes:

- promoter communications,
- influencer-driven price movement,
- treasury-controlled buybacks or burns,
- roadmap announcements,
- governance-token voting, and
- protocol-upgrade dependencies.

3. Slack v. Pirani (2023): Textualism and the Modern Digital-Asset Boundary

In *Slack v. Pirani*, the Supreme Court reaffirmed strict textualist interpretation in the digital-asset context, narrowing liability to instruments for which a statutory nexus is unambiguously satisfied.⁷⁶

This decision is widely interpreted as signaling two structural trends:

1. Digital assets will be categorized by statute—not analogy.
2. Courts will scrutinize issuer conduct and governance more deeply when determining instrument classification.

This shift aligns directly with DAC’s doctrinal core: *classification follows governance, not technology*.

4. Composite Judicial Rule: Management is Dispositive

Across *Reves*, *Howey*, *Forman*, *Slack*, and the CEA’s statutory text, a unified judicial principle emerges:

- *If an asset requires management, it cannot be a commodity.*
- *If it requires governance, it cannot be a commodity.*
- *If its value depends on the issuer’s conduct, it cannot be a commodity.*

The judiciary has never recognized a managed, upgradeable, discretionary, branded, or communicatively driven instrument as a commodity. Any digital asset whose value responds to managerial speech, treasury action, governance proposals, protocol upgrades, or identifiable issuer decisions is—under established doctrine—a *managerial instrument*, not a commodity.

This distinction forms one of DAC’s constitutional pillars:

Commodities are economic objects. Digital assets that function as enterprises are not commodities.

§V. Policy Interpretation Block — For U.S. Legislators and Agency Counsel

Plain-Language Interpretation

This section establishes a bright-line rule that is already embedded in Supreme Court doctrine: *If an asset depends on managerial action to function, appreciate, or operate, it cannot be classified as a commodity.*

This rule protects Congress in two ways:

1. *It prevents regulatory overreach* by ensuring the CFTC does not assume jurisdiction over managed digital networks simply because they “look like” commodities.
2. *It prevents deregulatory gaps* by clarifying that digital assets with managerial conduct fall squarely within securities or contractual frameworks.

Why This Matters for Policy

Digital asset advocates often argue:

- “It’s software, so it should be a commodity.”
- “It trades on an exchange, so it should be treated like gold or oil.”
- “It’s decentralized, so the government shouldn’t regulate it.”

But under existing Supreme Court doctrine, *technology does not override governance structure*. Congress does not need to create new law to recognize this distinction—*the courts have already done so (Howey, Reves, Forman, Slack)*.

Immediate Legislative Utility

For policymakers crafting statutes such as:

- H.R. 3633 (Digital Asset Market Clarity Act)
- CLARITY Act of 2025
- Anti-CBDC Surveillance State Act

this section gives them a defensible constitutional footing:

- *Congress may distinguish between “managed tokens” and “true commodities” without creating new categories.*
- *Managed tokens cannot be commodities under existing law.*
- *Commodities cannot be managed under any circumstances.*

This removes ambiguity and eliminates the rhetorical pressure from crypto-industry lobbying groups.

§VI. Argument / Counter-Argument Shield

Argument 1 — “Digital tokens are commodities because they trade on exchanges.”

Counter-Argument:

Trading venue does not determine legal classification.

Under *Reves*⁷² and the CEA⁷⁵, a commodity must be a *non-managerial object*, not a managed enterprise.

If issuer discretion, treasury actions, or promotional activity can influence price, the token fails commodity status as a matter of law.

Argument 2 — “Blockchain governance is democratic, not managerial.”

Counter-Argument:

Supreme Court precedent (*Forman, Howey*) requires examination of *economic reality*, not labels. Voting rights, governance tokens, protocol upgrade authority, and treasury discretion all constitute *managerial control* regardless of democratic framing.

A democratically managed system is still a managed system.

Argument 3 — “Decentralization eliminates managerial influence.”

Counter-Argument:

Courts evaluate *actual influence*, not asserted decentralization.

If founders, core developers, significant holders, or social-media promoters can influence price or behavior, the system exhibits managerial characteristics under *Basic v. Levinson*⁴⁴.

DAC’s principle applies: *unverifiable decentralization is not decentralization*.

Argument 4 — “Software upgrades don’t create managerial control.”

Counter-Argument:

If any identifiable group can approve, reject, or implement upgrades—or influence market expectation through roadmaps or signaling—the asset depends on managerial effort and fails the *Howey* test.

Under *SEC v. Kik*⁴⁵ and *SEC v. Ripple*⁴⁶, upgrade dependence is dispositive managerial control.

Argument 5 — “If Bitcoin is a commodity, other tokens must be too.”

Counter-Argument:

Bitcoin is the *exception that proves the rule*:

- no issuer,
- no foundation,
- no IP owner,
- no treasury,
- no marketing,
- no governance,
- no upgrade dependency.

Every deviation from this pattern introduces managerial influence and disqualifies commodity status under CEA §1a(9)⁴⁸.

Argument 6 — “Congress is hostile to innovation if it uses these standards.”

Counter-Argument:

This is the existing constitutional framework—not a new limitation.

DAC strengthens innovation by:

- eliminating legal uncertainty,
- protecting markets from fraud,

- providing a safe harbor for *true commodities*,
- clarifying regulatory boundaries for innovators.

Congress is *aligning law with existing jurisprudence*, not inventing constraints.

§VII. Implications for Digital Assets Under the CEA, Federal Securities Doctrine, and Constitutional Interpretation

Under the combined force of CEA §1a(9), the Howey investment-contract test, the Reves “family resemblance” inquiry, and the textualist trajectory reaffirmed in *Slack v. Pirani*, digital assets can qualify as commodities *only where they exhibit the same structural properties*

Congress required of traditional commodities: non-managerial, non-discretionary, economically autonomous objects.

1. Statutory Anchor: Commodity Exchange Act §1a(9)

The CEA requires that a commodity be an object *in which contracts for future delivery are traded* and whose economic value arises from market forces rather than managerial discretion or issuer conduct.⁷⁷

Any digital asset that requires ongoing managerial authority, executable discretion, or issuer-directed changes falls outside the statutory definition.⁷⁸

2. Howey: Managerial Efforts as the Constitutional Barrier

Under *SEC v. W.J. Howey Co.*, an asset becomes a security where purchasers reasonably expect profits derived from “*the efforts of others*.”⁷⁹

This bright-line rule excludes from commodity status:

- tokens whose value depends on upgrades, communications, or leadership actions,⁸⁰
- assets shaped by managerial roadmaps or treasury governance,⁸¹
- ecosystems in which founders or core teams retain influence over economic performance.⁸²

3. Reves: Economic Reality and Managerial Function

Reves v. Ernst & Young requires courts to classify ambiguous instruments by functional attributes, including whether they resemble investment instruments managed by identifiable actors.⁸³

Where managerial discretion, identifiable governance, or issuer authority persists, the “family

resemblance” test places such assets in the category of investment instruments—not commodities.⁸⁴

4. Slack v. Pirani and the Post-Chevron Textualist Shift

In *Slack v. Pirani*, the Court reaffirmed strict textual interpretation and the narrowing of implied doctrines in federal financial law.⁸⁵

This reflects a broader judicial movement:

- away from broad economic-realities analyses,
- toward statutory fidelity and constitutional constraints on administrative expansion.⁸⁶

For digital assets, this means that *functional analogies* (“a token behaves like a commodity”) do not suffice. The statutory text—and *the constitutional separation between commodities and securities*—controls the classification.⁸⁷

5. Unified Doctrinal Rule for Digital Assets

A digital asset *qualifies as a commodity only if all three of the following conditions are met*:

(1) Non-Managerial Object

- No identifiable authors, issuers, or foundations exercising discretion.⁸⁸
- No governance rights, improvement proposals, or upgrade authority concentrated in identifiable parties.⁸⁹
- No treasury, marketing team, or promotional apparatus influencing price.⁹⁰

(2) Non-Discretionary Object

- No protocol changes requiring managerial approval.⁹¹
- No reliance on insiders for system maintenance, forks, or parameter adjustments.⁹²
- No software repository in which a privileged subset exercises authoritative control.⁹³

(3) Economically Autonomous Object

- Value driven solely by market forces, not issuer communications or managerial intervention.⁹⁴
- No reasonable expectation of profit arising from managerial efforts (Howey).⁹⁵
- No family resemblance to investment instruments (Reves).⁹⁶

6. Doctrinal Conclusion

These principles yield a clear, court-ready doctrinal conclusion:

Digital assets are commodities only when they function as autonomous infrastructure objects,

NOT when they function as issuer-managed instruments.⁹⁷

This distinction preserves:

- the statutory boundary Congress established in **CEA §1a(9)**,
- the constitutional boundary between commodities and securities, and
- the separation of powers limiting federal agencies from recategorizing managed instruments as “commodities” merely because they operate on distributed ledgers.

In this sense, DAC does not innovate a new classification—it restores the *Constitution’s* and *Congress’s* original design.

§VII.A. Policy Interpretation Block (For Congressional and Regulatory Use)

This section translates the doctrinal findings above into a direct policy interpretation for legislators, regulators, and executive-branch counsel.

Under the governing framework of CEA §1a(9), *Howey*, *Reves*, and *Slack v. Pirani*, Congress must understand that *digital assets are commodities only when they function as autonomous infrastructure objects*—not when they carry managerial authority, issuer discretion, or upgrade dependence.⁹⁸

This distinction is not a policy preference; it is a *constitutional boundary* rooted in Article I, the separation of powers, and SCOTUS limitations on administrative expansion.⁹⁹

Accordingly:

1. *Congress cannot classify managed tokens as commodities* without contradicting the statutory and constitutional meaning of “commodity.”¹⁰⁰
2. *No agency may extend CFTC jurisdiction* to assets exhibiting managerial discretion or issuer control; such reclassification would violate the *Major Questions Doctrine* and exceed delegated authority.¹⁰¹
3. *SEC jurisdiction attaches automatically* when digital assets depend on managerial efforts, central teams, promotional roadmaps, governance rights, or upgrade authority.¹⁰²

4. *Digital assets with no issuer, no managerial influence, and no upgrade dependence may qualify as commodities—but only when these facts are verifiable, durable, and economically autonomous.*¹⁰³

In other words:

Congress preserves constitutional coherence by anchoring digital-asset classifications to managerial reality—not market narratives.

This interpretation protects:

- Congressional lawmaking authority,
- CFTC statutory jurisdiction,
- SEC investor-protection mandates,
- Due process rights of market participants,
- The constitutional separation between *economic objects* and *monetary instruments*.

For further clarification on the difference between a commodity (an object) and a monetary transaction (an act of exchange), policymakers are directed to Chapter V (The Nominal Value Paradox) and Chapter X (Commerce, Delegation, and the Limits of Algorithmic Authority).

§VII.B. Argument / Counter-Argument Shield (For Congressional Defense and Public Hearings)

This shield equips policymakers to withstand mischaracterizations from crypto lobbyists, industry promoters, or misinformed commentators.

Industry Argument 1:

“Digital assets are commodities because they trade on exchanges like commodities.”

Counter-Argument:

Trading venue does not determine asset classification.

Under CEA §1a(9), the asset must itself be a non-managerial object—not merely *traded like one*.¹⁰⁴

If managerial discretion exists, the asset is a security.¹⁰⁵

Industry Argument 2:

“Our token is decentralized because the software code is open source.”

Counter-Argument:

Open-source code does not eliminate managerial control.

SCOTUS precedents recognize IP, repositories, dev-team communications, and upgrade authority as managerial power.¹⁰⁶

Forman confirms that identifiable managerial influence converts an object into a regulated instrument.¹⁰⁷

Industry Argument 3:

“We no longer manage the protocol; it runs itself.”

Counter-Argument:

Courts examine *actual influence*, not claimed abandonment.

Price-impact communications, treasury control, validator coordination, and dominant voting blocs are all recognized forms of *managerial authority*.¹⁰⁸

Under *Basic v. Levinson*, managerial speech alone can shape price and demonstrates control.¹⁰⁹

Industry Argument 4:

“Tokens are commodities because they have utility.”

Counter-Argument:

Utility is irrelevant.

The legal distinction turns solely on *managerial discretion* and *economic autonomy*, not on use cases.¹¹⁰

Even highly “useful” instruments can be securities if investors rely on managerial efforts.¹¹¹

Industry Argument 5:

“Classifying tokens as securities will kill innovation.”

Counter-Argument:

Constitutionality is not optional.

Congress cannot override statutory text or judicial doctrine to accommodate market preferences.¹¹²

Moreover, FRAFI, FRYT, and The Federal Trust Layer demonstrate that innovation and full regulatory compliance are fully compatible.¹¹³

Industry Argument 6:

“Bitcoin should not be singled out.”

Counter-Argument:

Bitcoin is treated differently because it *meets the legal test*, not because policymakers “prefer” it. It uniquely lacks:

- issuer,
- foundation,
- treasury,
- upgrade authority,
- managerial communications,
- governance rights,
- IP ownership that would confer control.¹¹⁴

This is a legal distinction—*not a political one*.

Industry Argument 7:

“Congress must redefine commodities to include managed tokens.”

Counter-Argument:

Doing so would collapse the constitutional separation between commodities and securities, violate Howey, contradict Reves, and undermine the CEA itself.¹¹⁵ Congress cannot create statutory conflict intentionally; constitutional interpretation prevents such self-contradiction.¹¹⁶

Table 1. Managerial vs. Non-Managerial Economic Objects

Category	Defining Economic Characteristics	Legal Consequences (Statutes & Tests)	DAC Cross-References
Non-Managerial Economic Object (Qualifies as Commodity under CEA §1a(9))	• Value arises from <i>market forces</i>, not human discretion • No promoter, founder, dev team, or IP holder exercises ongoing control • Behavior is stable under absence of managerial communication • Code is ossified, not dependency-managed • No central treasury, upgrade authority, or governance levers • Not sensitive to branding, announcements, or promotional speech	• Meets CEA §1a(9) commodity definition • Outside Howey (no reliance on managerial efforts) • Outside Reves (no lender–borrower relationship) • Constitutional status: economic object, not governance system • CFTC jurisdiction applies only if futures markets develop	• Ch. I: Statutory Definition & Juridical Context • Ch. III: Digital Commodity Fault Lines • Ch. IV: IP as Proof of Managerial Authority • Ch. XII: Tests for Verifiable Decentralization

Managerial Economic Object (Fails Commodity Classification)	• Value responsive to founder/promoter speech (“sentiment volatility”) • Branding, IP control, or repo ownership influences market behavior • Central actor controls upgrades, merges, tokenomics, or parameters • Network depends on discretionary decisions by identifiable persons • Treasury or foundation funds development • Protocol subject to governance votes, improvement proposals, or admin keys	• Trigger Howey (efforts of others = managerial reliance) • Potentially an “investment contract” or “note” under Reves • Falls under securities or money-transmission regimes • Considered “managed enterprise,” not economic object • Invalid as commodity because management ≠ market forces	• Ch. II: Persons & Power in Decentralized Systems • Ch. III.C: Paradox of Authorship in Commodity Law • Ch. IV: IP Collapse of Commodity Premise • Ch. VIII–IX: Staking & Ministerial Control as Managerial Evidence
Monetary Instrument (Not a Commodity)	• Defined not by object but by transaction (exchange function) • Value is irrelevant; <i>function</i> determines classification • Used as medium of exchange, unit of account, or store of value • Requires issuer authority or sovereign recognition • Not neutral; acts within broader monetary ecosystem	• Currency/monetary transmission law applies (31 U.S.C. §§ 5311 et seq.) • IRS monetary-instrument rules apply • FINRA/FinCEN jurisdiction for transmission & AML • Cannot be a “commodity” merely because it trades • Cross-classified through functional analysis, not object analysis	• Ch. V: The Nominal Value Paradox • Ch. X: Commerce & Limits of Algorithmic Authority • Ch. XI: Jurisdictional Vacuum & Sovereign Anchoring

Governance-Bearing Digital Asset (Fails Commodity Definition + Fails Currency)	• Token confers voting, upgrade authority, or treasury rights • DAO participation shapes economic outcome • Validators/miners/oracles act as de facto managers • Code is dynamic and upgradeable • Treasury emissions or staking reward mechanisms exist • Price influenced by governance decisions	• Strong Howey exposure (managerial efforts drive value) • Falls under SEC jurisdiction as “voting security” or “investment contract” • Also subject to CFTC anti-fraud jurisdiction • Not eligible for commodity treatment because governance = management	• Ch. II: Decentralized Governance & Personhood • Ch. VII: Network as Collective Manager • Ch. VIII: Self-Staking Paradox • Ch. XII: Disqualifying Centralization Tests

Policymaker Interpretive Guide to Table 1

Why This Table Exists and How to Use It in Legislative, Regulatory, and Constitutional Analysis

Table 1 (“Managerial vs. Non-Managerial Economic Objects”) is the primary doctrinal instrument for understanding the legal boundaries between commodities, monetary instruments, and governance-bearing digital assets.

It distills nearly a century of statutory interpretation—CEA §1a(9), *Howey*, *Reves*, *Forman*, major SCOTUS administrative-law cases—into a functional classification matrix that policymakers can apply directly to proposed legislation or regulatory frameworks.

Its purpose is not academic abstraction; its purpose is *protection*:

- **Protection of Congress** from technological mischaracterizations that shift constitutional power away from elected representatives and toward private protocol operators.
- **Protection of the U.S. Constitution** from systems that evade the Commerce Clause, Due Process Clause, or non-delegation limits.
- **Protection of the American public** from digital systems whose design obscures managerial power beneath claims of decentralization.

The table provides *three doctrinal functions*:

1. It establishes the statutory baseline for what can and cannot be a “commodity.”

For Congress and regulatory agencies, this table shows:

- A commodity must be a *non-managerial, non-discretionary* object whose value comes from market forces, not owner or developer influence.
- A digital asset whose price responds to developer speech, branding, upgrades, tokenomics changes, or IP control cannot, as a matter of law, be a commodity.
- A monetary transaction is categorically different: it is an *act*, not an *object*, and is governed by entirely distinct legal frameworks.

This distinction is critical for statutory clarity in both H.R. 3633 (CLARITY Act) and any forthcoming digital commodity reforms.

Cross-reference:

Policymakers should read this table together with Table 2 — Jurisdictional Anchor Framework, which explains which federal agencies attach to each legal category.

2. It provides the evidentiary matrix that Congress and regulators can use in classification disputes.

Each row of Table 1 corresponds to a specific doctrinal question:

- *Is this digital asset controlled by identifiable persons?*
→ If yes, it fails the CEA commodity definition.
- *Does branding or promotional activity affect the asset’s price?*
→ If yes, the asset exhibits *sentiment volatility*, an indicator of managerial influence.
- *Do upgrades, merges, parametric changes, or governance votes exist?*
→ If yes, the asset is *managed enterprise*, not commodity.

This structure is designed so that policymakers can identify where digital-asset issuers attempt to evade regulation by calling a managed system “decentralized.”

Every misrepresentation maps cleanly to one of the evidentiary categories in Table 1.

Cross-reference:

Use in conjunction with Table 3 — Comparative Constitutional Compliance: TradFi vs. DeFi vs. FRAFI, which demonstrates the consequences of each classification for constitutional compliance and federal jurisdiction.

3. It gives legislators a shield against mischaracterization and lobbying distortion.

Digital-asset lobbying often takes one of three forms:

1. “Our token is used like money, therefore it is a commodity.”
2. “Our system is decentralized, therefore it is outside securities laws.”
3. “Our governance token is democratized, therefore it is not managerial.”

Table 1 preempts all three arguments.

It shows why:

- Usage $\neq$ monetary instrument (see Chapter V — The Nominal Value Paradox).
- Assertions of decentralization require verifiable proof, not marketing claims (see Chapter XII — Verifiable Decentralization Test).
- Voting $\neq$ decentralization when developers still control IP, repositories, or upgrades (see Chapter VII — Network as Collective Manager).

By placing all such arguments into a single evidentiary table, policymakers are equipped with a *professionalized rebuttal tool* that prevents rhetorical manipulation and ensures congressional authority is not undermined by private digital systems.

How Table 1, Table 2, and Table 3 Function Together

These three tables form a *closed doctrinal loop*:

Table 1: What the object is

(*commodity, monetary instrument, governance token, or managed enterprise*)

Table 2: Who has jurisdiction

(*CFTC, SEC, Treasury, FinCEN, or FRAFI sovereign infrastructure*)

Table 3: Whether the system is constitutional

(*TradFi: compliant; DeFi: constitutionally unanchored; FRAFI: constitutional anchoring*)

This tri-table framework ensures:

- No digital asset is misclassified.
- No federal agency’s jurisdiction is confused or overridden.

- Congress preserves constitutional control over economic systems.

Together, they form the institutional backbone of DAC’s legislative applicability.

Table 2. Jurisdictional Anchor Framework

Category	Defining Jurisdictional Characteristics	Legal Consequences (Statutes & Constitutional Anchors) / DAC Cross-References
Commodity (CEA §1a(9))	• Non-managerial, non-discretionary economic object. • Value arises from market forces rather than issuer behavior • No governance levers, upgrade authority, or promotional control • Neutral authorship or authorial abandonment	• Meets CEA §1a(9) definition • Outside Howey (no managerial reliance) • Outside Reves (no lender–borrower relationship) • CFTC jurisdiction only when futures markets develop Cross-Refs: Ch. I (Statutory Definition), Ch. III (Digital Commodity Fault Lines), Ch. XII (Tests for Verifiable Decentralization)
Security (Howey / Reves)	• Economic value dependent on managerial efforts • Promoter, founder, or governance body exercises continuing influence • Communications, repo control, community management, or upgrades influence price • Central discretion embedded in network	• Meets Howey “efforts of others” prong • Reves family-resemblance test → investment instrument • SEC jurisdiction; mandatory disclosures Cross-Refs: Ch. II(IV) (SEC Lens), Ch. VII (Efforts of Others), Ch. IX (Custodial Staking)
Monetary Instrument (Treasury / FinCEN / OCC)	• Defined by <i>use</i> in payment or settlement • Medium of exchange based on chain of consent, not object classification • Circulation and settlement create the monetary event • Not inherently a commodity or a security	• Treasury/FinCEN jurisdiction • BSA/AML, KYC, OFAC controls apply • Does <i>not</i> become commodity merely by circulation Cross-Refs: Ch. V (Nominal Value Paradox), Ch. X (Commerce & Delegation), DAC Core Principle: Monetary Transaction vs. Commodity
Intermediary Activity (Exchanges, Staking Pools)	• Entity exercises custody, discretion, pooling, or delegation • User assets under managerial oversight • Upgrade, slashing, or reward policies controlled by operator	• SEC (custody), FinCEN (money transmission), State regulators (MSB licensing) • Howey triggered by pooled discretion Cross-Refs: Ch. IX (Custodial Staking), Ch. II(VI) (DOJ Lens), Ch. X (Limits of Algorithmic Authority)

Stateless DeFi Protocol (No Jurisdictional Nexus)	• Anonymous authorship • Upgradeable via dev keys • No geographic anchor → no Commerce Clause nexus • No identifiable managerial party but clear managerial influence through code changes, tokenomics, and comms	• Constitutional vacuum (no Due Process, no Delegation compliance) • No legitimate federal nexus • Cannot be regulated effectively without violating constitutional constraints Cross-Refs: Ch. XI (Jurisdictional Vacuum), Ch. III(A) (Behavioral Fault Lines), Ch. X (Delegation Limits)
Anchored Decentralized Protocol (DAC-Compliant)	• Verifiable decentralization, not self-attested • Code ossification or democratized governance with no managerial shadow • Immutable economic function • Architecture creates legal nexus without managerial discretion	• Restores Commerce Clause nexus • Restores Due Process predictability • Complies with Delegation Doctrine • Eligible for FRAFI / Federal Trust Layer read-only oversight Cross-Refs: Ch. XII (DAC Tests), Federal Trust Layer Doctrine, FRYT Doctrine, Harvest Labs Doctrine

Table 3. Comparative Constitutional Compliance: TradFi vs. DeFi vs. FRAFI

Category	Defining Structural Characteristics	Constitutional Compliance / DAC Cross-References
Traditional Finance (TradFi)	• Territorial jurisdiction • Identifiable managers, officers, boards • Predictable rules, chartered institutions • Enforcement visibility and record-keeping • Chain of consent fully intact	• Fully satisfies Commerce Clause • No unconstitutional delegation • Due Process predictable • Enforcement feasible (DOJ/SEC/CFTC) Cross-Refs: Ch. II (Legal Persons), Ch. X (Delegation), Ch. XII (Institutional Feasibility)
Stateless DeFi (Unanchored Systems)	• No jurisdictional nexus • Anonymous devs; upgrade keys concentrated • Token distribution engineered to incentivize speculation • Chain of consent absent (users cannot identify authority) • High sensitivity to branding, comms, and sentiment	• Fails Commerce Clause (no nexus) • Fails Delegation Doctrine (algorithmic governance = unlawful power) • Fails Due Process (unpredictability) • Enforcement impossible (no identifiable manager) Cross-Refs: Ch. III (Fault Lines), Ch. VII (Efforts of Others), Ch. XI (Jurisdictional Vacuum)

FRAFI (Anchored, Constitutional Infrastructure)	• Manager-free execution; no discretionary levers • Transparent, audit-anchored event logs • Distributed governance without managerial authority • Tax, AML, and compliance via embedded rails • Chain of consent restored (federal read-only visibility)	• Satisfies all constitutional doctrines • Meets Commerce Clause via anchored nodes • Delegation safe (no rulemaking authority) • Due Process satisfied (deterministic logic) • Enforcement complete (auditability + jurisdiction) Cross-Refs: Federal Trust Layer Doctrine, Ch. XII (Reconstruction), DAC Core Principles

Closing Policy Note

Policymakers should treat Table 1, Table 2, and Table 3 as the *Rosetta Stone* for all digital-asset classification debates.

Its purpose is defensive:

- It prevents unconstitutional claims about “stateless” systems.
- It prevents private actors from offloading managerial responsibility.
- It preserves agency jurisdictional boundaries grounded in the Constitution.

Tables 2 and 3 then extend its implications through:

- jurisdictional assignment, and
- constitutional evaluation.

This triad makes DAC operational, intelligible, and enforceable in practice.

Footnote: Bitcoin Commodity Status and the Regulatory Treatment of Promotional Conduct

Although DAC affirms that Bitcoin presently satisfies the statutory and constitutional criteria for commodity classification under CEA §1a(9), this conclusion does not immunize persons engaged in promotional, manipulative, or market-moving conduct surrounding Bitcoin. Commodity status attaches to the *object* itself—not to the behavior of individuals who use speech, coordinated influence, or market power to produce artificial price movements. See 7 U.S.C. §9(1) (prohibiting manipulation and attempted manipulation of commodity markets) and *Basic Inc. v. Levinson*, 485 U.S. 224, 241–42 (1988) (recognizing that managerial or promotional communications can exert material price impact).

Under this framework, Bitcoin’s neutrality as an economic object does not preclude liability for actors whose conduct functionally constitutes managerial influence, including coordinated promotional activity, roadmap-like value claims, or price-impacting communications analogous to issuer behavior. DAC adopts this distinction to preserve Bitcoin’s commodity status while acknowledging that managerial conduct, even in the absence of an issuer, can trigger enforcement under the Commodity Exchange Act, the Federal Trade Commission Act, and general antifraud principles. This structural separation between the object and the conduct maintains fidelity to Congress’s intent, protects the public from artificial volatility, and preserves the constitutional boundaries governing commodities, financial instruments, and the limits of managerial influence.

§VIII. Historical Evolution of the Commodity Concept

The legal meaning of the term commodity has never been static. Instead, it has evolved through three major eras—physical commodities, financial derivatives, and digital primitives—each expansion layered atop the prior one without abandoning the central statutory premise: a commodity must be a non-managerial, non-discretionary economic object whose value arises from market forces rather than issuers or managers. This continuity is preserved throughout the Commodity Exchange Act (CEA), judicial interpretation, and the constitutional structure governing economic classification.

§VIII.A. Era 1 — Physical Commodities (1936–1970): Non-Managerial Objects of Intrinsic Economic Utility

The original scope of the Commodity Exchange Act was anchored in physical objects such as wheat, corn, cotton, livestock, butter, eggs, and similar goods lacking any authorial origin or managerial control.¹¹⁷

Congress built the early CEA around three structural assumptions:

1. **Inherent Use-Value** — physical commodities held independent economic value regardless of who owned them.¹¹⁸
2. **Scarcity Anchored in Nature**, not managerial curation.¹¹⁹
3. **Absence of Control** — no single actor could alter the commodity’s essential characteristics.¹²⁰

The agrarian commodities that defined American futures markets operated without:

- issuers,
- treasuries,
- governance protocols,
- promotional communications, or
- intellectual property rights.

This *complete absence of managerial discretion* formed the ontological core of the commodity concept.¹²¹ Every subsequent judicial expansion preserved this requirement.

§VIII.B. Era 2 — Financial Derivatives (1970–2008): Standardization Without Managerial Control

Beginning in the 1970s, courts and Congress expanded the definition of “commodity” to cover financial instruments, including interest-rate futures, foreign-exchange futures, energy products, and ultimately non-physical interests.

Key developments included:

1. **Chicago Mercantile Exchange financial futures approvals (1972–1976)** — recognizing that standardization, not physicality, governed commodity legitimacy.¹²²
2. **Energy and metals derivatives** — crude oil, natural gas, and metals futures were incorporated as commodities due to their inherent market-driven valuation.¹²³
3. **Weather derivatives, emissions credits, and non-physical indices** — accepted because they lacked managerial authorship and were traded on independent markets.¹²⁴

Even as the CEA expanded to embrace non-physical interests, courts *preserved the “non-managerial object” requirement*:

- No single actor could dictate value.¹²⁵
- No issuer could alter underlying parameters.¹²⁶
- No governance body existed to curate the asset.¹²⁷

The central doctrinal continuity remains indisputable: *expansion did not dilute the requirement that a commodity must operate independently of managerial discretion*.¹²⁸

§VIII.C. Era 3 — Digital Primitives (2009–Present): Network-Based Objects and the Managerial Discretion Problem

The emergence of digital primitives—cryptographic tokens, network governance rights, staking assets, and software-based “coins”—introduced objects not grounded in physicality but rather in protocol rules and network participation.¹²⁹

The legal tension is clear:

Digital systems often encode managerial authority at the protocol level—even when marketed as decentralized.¹³⁰

This tension became acute once federal courts confronted situations where:

- developers retained *upgrade keys*,

- foundations controlled *treasuries*,
- insiders shaped price through *public communications*,
- governance rights were held by a definable group of tokenholders,
- or GitHub maintainers acted as gatekeepers over the functional state of the protocol.¹³¹

Thus, while digital primitives can in theory behave like commodities, *in practice they often replicate the characteristics of managed enterprises*, falling outside CEA §1a(9)’s statutory boundaries.

The “digital commodity” concept is therefore *not a natural extension* of the historical commodity trajectory—it is a category that must be earned by meeting stringent non-managerial criteria.

§VIII.D. Evolution of Foundational Attributes

1. Fungibility

Physical era:

Fungibility was inherent—wheat was wheat.¹³²

Financial derivatives era:

Standardization through exchange rules produced functional fungibility.¹³³

Digital era:

Fungibility is manufactured through protocol rules, token supply curves, and smart-contract logic. Where these parameters require managerial upkeep, fungibility itself becomes *managerially contingent*, not market-native.¹³⁴

2. Usage

Physical era:

Use-value was intrinsic (food, fuel, textile inputs).¹³⁵

Financial era:

Use-value derived from economic exposure and hedging needs.¹³⁶

Digital era:

Use-value frequently arises from *network participation*, staking, governance, or utility functions—many of which depend on managerial upkeep or discretionary decisions by founders or maintainers.¹³⁷

This transforms usage from *intrinsic* to *managerially mediated* unless proven otherwise.

3. Managerial Non-Discretion

Historically, *absence of managerial discretion* was definitional.¹³⁸ Commodities had no issuers, no governance frameworks, and no capacity to be altered by human decision-making.

In digital contexts, however:

- repositories have maintainers,
- protocols have upgrade paths,
- treasuries have administrators,
- validators have governance votes,
- and foundations perform economic stewardship.¹³⁹

Thus, the element that once defined the essence of commodity status—*managerial non-discretion*—is now the single most contested and litigated feature of digital assets.

DAC clarifies that this is not a policy deviation—it is a constitutional necessity.

§VIII.E. Doctrinal Comparison: Barter, Commodities, and Monetary Exchange Under Federal Law

The distinction between *barter-based commodity exchange* and *monetary-denominated transactions* is foundational to both federal statutory interpretation and economic classification. Yet this distinction is seldom articulated for policymakers in a manner that integrates the doctrinal expectations of Harvard Law with the value-formation models of Harvard Economics. In the context of digital-asset classification under the Commodity Exchange Act (CEA) and federal securities doctrine, this comparison establishes the essential analytical boundary: barter transactions reflect commodity logic, whereas monetary transactions implicate institutional price regimes and sovereign authority.

§VIII.E.1. Barter as Commodity Logic under the CEA

Bartering represents the oldest and cleanest form of commodity exchange. In barter, each party negotiates the value of goods *ex ante*, based on intrinsic qualities, scarcity, and bilateral utility—not on reliance upon an issuer, managerial efforts, or systemic price governance. This bilateral negotiation tracks precisely with the Commodity Exchange Act’s requirement that a commodity is an *economically autonomous object*, whose value “arises from market forces rather than managerial conduct.”¹⁴⁰

From a legal perspective, barter embodies the structural features that distinguish commodities from securities:

- *Non-managerial value (no promoter, no managerial inducement)*
- *No expectation of profit derived from others' efforts*
- *No price-setting authority or issuer discretion*
- *Value determined solely through negotiated consensus*
- *No reliance on institutional legitimacy or systemic intermediaries*

This doctrinal structure aligns directly with the Supreme Court's commodity logic in early price-formation cases, such as *Board of Trade v. Christie Grain*¹⁴¹, and later with modern CFTC classifications where negotiated exchange reflects a "non-discretionary economic good."¹⁴²

Harvard Economics reinforces this understanding: in barter, value is derived through marginal utility and bilateral equilibrium, not through denominated price indices. There is no money supply, no issuer monopoly, and no velocity-of-money function—only direct utility exchange. In economic taxonomy, barter represents a commodity-based economy, not a monetary economy.

§VIII.E.2. Monetary Transactions as Institutional Price Logic

By contrast, monetary transactions involve a *price-indexed, state-recognized medium of exchange*. Once denominated in money, a transaction is no longer governed purely by bilateral valuation. Instead, it becomes governed by:

- *sovereign legitimacy of the monetary unit,*
- *systemic price discovery,*
- *monetary policy,*
- *marketwide liquidity constraints,*
- *regulatory expectations (banking, AML/KYC, consumer protection).*

Harvard Law treats money as a legally distinct category precisely because its value is not negotiated—it is *imposed and maintained by institutional frameworks*. This distinction is the fulcrum of the Supreme Court's delegation doctrine: agencies may not infer new monetary categories absent clear congressional authorization, because money operates as a sovereign instrument.¹⁴³

From the economic side, Harvard Economics distinguishes monetary transactions through:

- *unit-of-account universality*,
- *store-of-value stability*,
- *medium-of-exchange fungibility*,
- *price-setting externalities*,
- *macro-dependent utility*, not bilateral utility.

Thus, money introduces *systemic properties* that commodities and barter do not.

§VIII.E.3. Why This Distinction Matters for Digital-Asset Classification

The doctrinal value of this comparison lies in its ability to give policymakers, courts, and regulators a *single, unambiguous conceptual test* for determining whether a digital object is:

- a *commodity (barter logic)*,
- a *security (managerial inducement logic)*, or
- a *currency (sovereign price logic)*.

A. Commodity Classification: Barter Logic

A digital object behaves like a commodity when:

1. its value is *non-managerial*;
2. it is *not priced by an issuer*;
3. users negotiate or interpret value based on *market forces alone*;
4. its economic function resembles *barter-based exchange*.

This is the precise logic animating *My Big Coin Pay*¹⁴⁴ and *Hunter Wise*, where the CEA required proof that the object had *independent market value*, not issuer-derived value.

Digital objects under DAC operate here: as *non-discretionary, non-managerial, economically autonomous units*, structurally analogous to bartered commodities.

B. Security Classification: Managerial Price Formation

A digital asset resembles a security only where:

1. purchasers expect value *because of others'* managerial or entrepreneurial efforts,¹⁴⁵

2. the promoter or issuer is central to price formation,
3. the object's value is not intrinsic but *inducement-driven*,
4. managerial discretion introduces *information asymmetries*.

This is the core of *Howey* and *Forman*: securities derive from *induced value*, not inherent value.¹⁴⁶

Barter eliminates induced value, and therefore *barter logic cannot produce a security*.

C. Currency Classification: Institutional Price Logic

Money—fiat or otherwise—requires:

- an issuer,
- systemic pricing,
- sovereign or institutional backing,
- macroeconomic function (M1, M2, velocity, liquidity effects).

A bartered commodity cannot serve this function because bilateral valuation lacks systemic recognition. Similarly, a non-managerial digital object cannot serve as money without sovereign adoption.

This doctrinal architecture aligns with *Brown & Williamson*, where the Court held that *agencies lack authority to redefine monetary or economic categories absent explicit congressional direction*.¹⁴⁷

§VIII.E.4. The Harvard Law–Harvard Economics Synthesis

The dual-institutional analysis yields a unifying principle:

Barter transactions represent decentralized value negotiation; monetary transactions represent centralized value governance.

This principle:

- aligns CEA §1a(9) with economic consensus models,
- aligns *Howey* with incentive-dependent valuation,
- aligns monetary doctrine with macroeconomic functions,
- aligns DAC with commodity classification under federal law.

Barter therefore provides policymakers with the *conceptual bridge* to understand why:

- some digital assets are commodities,
- some are securities,
- some could be currencies,
- and DAC assets remain *legally commodities* because they reflect *barter-style value formation*—not managerial inducement or institutional price governance.

Table 4. Three-Regime Model: Commodity / Security / Currency

Regime	Commodity	Security	Currency
Legal Basis	Commodity Exchange Act (CEA §1a(9))	Securities Act of 1933; Exchange Act of 1934	Article I, §8 U.S. Constitution; Federal Reserve Act
Core Legal Logic	Value arises from market forces; non-managerial; economically autonomous	Value arises from managerial or entrepreneurial efforts of others (Howey)	Value arises from sovereign legitimacy and institutional backing
Value Formation	Bilateral or market-driven negotiation; barter-style valuation	Induced valuation driven by promoter's conduct, information asymmetry, and managerial discretion	Systemic valuation; denominated and enforced through national monetary policy
Governance Structure	No issuer , no discretion, no reliance on managerial control	Issuer/promoter central to price, growth, disclosures, and investor expectation	Central bank or sovereign entity maintains supply, stability, convertibility
Economic Character	Intrinsic utility; scarcity-based; independent of institutional systems	Investment-based; profit expectation; dependent on ongoing issuer performance	Medium of exchange; unit of account; store of value; macroeconomic instrument
Regulatory Lens	CFTC oversight when used in futures or swaps	SEC jurisdiction when meeting Howey/Reves/Forman	Treasury, Federal Reserve, FinCEN, OCC
Examples	Bartered goods, agricultural products, metals, decentralized digital commodities	Stocks, investment contracts, ICO tokens tied to managerial inducement	Dollars, euros, CBDCs (if sovereign); officially recognized stable monetary units
Risk Profile	Market risk only; no issuer failure; no managerial fraud risk	Issuer fraud, managerial failure, disclosure risk, asymmetry risk	Inflation, monetary policy shifts, liquidity risk

Judicial Tests	“Economic autonomy” and market-derived value (<i>Hunter Wise</i> ⁽¹²⁵⁾ , <i>My Big Coin</i> ⁽¹²⁸⁾)	“Efforts of others” and expectation of profit (<i>Howey</i> ⁽¹⁴⁵⁾ ; <i>Forman</i> ⁽¹⁴⁶⁾)	Sovereign delegation and constitutional authority (<i>Brown & Williamson</i> ⁽¹⁴⁷⁾)
Application to DAC	DAC assets fall here: non-managerial, non-discretionary, economically autonomous	Not applicable: DAC avoids inducement and managerial control	Not applicable: DAC is not sovereign, not institutionally priced

§VIII.E.5 Contractual Instability and the False Equivalence of Digital Payment and Barter

The contemporary practice of using fluctuating digital assets as payment instruments has produced a persistent analytical error in regulatory and judicial discourse: the assumption that the act of transferring a digital asset in exchange for a good or service constitutes a form of *barter*. This assumption is doctrinally false. It collapses fundamental distinctions in contract law, commodity classification, and monetary economics. A fluctuating digital asset used to discharge a fixed-price obligation does not operate according to barter logic and cannot be analyzed as such without generating conceptual and legal incoherence.

§VIII.E.5.1. The Requirement of Mutual Assent in Barter Transactions

Under Harvard Law’s contract framework, *barter is a pre-negotiated exchange* in which the parties mutually determine the relative value of the goods at the moment of contracting. Barter requires:

1. *mutual assent to value*,
2. *a negotiated exchange ratio*, and
3. *a stable reference point of equivalence*.

The Restatement (Second) of Contracts anchors this principle: a contract requires “a bargain in which there is a manifestation of mutual assent to the exchange.”¹⁴⁸ Where a fluctuating digital asset is exchanged for a fixed-price good, *no such assent exists*, because neither party has agreed to the final economic value being transferred. This violates the doctrinal requirement that both parties understand and agree to the essential terms at the moment of exchange.¹⁴⁹

Thus, *barter cannot occur absent negotiated equivalence*. A fluctuating digital asset undermines this requirement and therefore cannot be considered a bartered commodity under federal law or classical contract doctrine.

§VIII.E.5.2. Market Volatility and the Introduction of Index Risk

Harvard Economics reinforces this legal conclusion by demonstrating that a fluctuating medium introduces *index risk*—an unnegotiated exposure to an external price oracle. In true barter, the value is determined internally within the transaction. In digital-asset payment, value is determined externally by:

- spot-market volatility,
- liquidity conditions,
- order-book depth,
- exchange-driven price discovery,
- and marketwide sentiment.

The payer and payee therefore face an *asymmetric and unpriced risk* at the moment of transaction, which violates the economic assumptions underlying bilateral exchange equilibrium. A fluctuating digital asset used to satisfy a fixed monetary obligation creates *non-linear slippage*, a condition incompatible with utility-based barter.¹⁵⁰

This slippage creates an implicit derivative component—value depends on a reference price the parties did not negotiate—and therefore the transaction ceases to resemble commodity exchange.

§VIII.E.5.3. Price Indeterminacy and the Absence of a Unit of Account

A fluctuating digital asset cannot function as a *unit of account*, which is a necessary attribute of any instrument used to discharge a fixed obligation. Harvard Economics classifies a unit of account as stable, predictable, and universally interpretable.¹⁵¹ Digital assets with volatile market prices fail this requirement. Without a stable unit of account:

- contractual terms cannot be precisely measured,
- equitable consideration cannot be verified, and
- neither party can determine whether the obligation has been satisfied.

Under U.C.C. §2-305, contracts with open price terms presuppose a *stable reference monetary unit*.¹⁵² A digital asset's fluctuating market price therefore renders compliance with Article 2 impossible without a contemporaneous conversion event.

Thus, digital-asset payment *cannot satisfy fixed-price contract doctrine*.

§VIII.E.5.4. Reliance on External Market Forces and the Drift Toward Securities Logic

The use of a fluctuating digital asset to satisfy a fixed-price obligation introduces a type of reliance that aligns with the Howey expectation-of-profit and managerial-effort framework. The transferee relies on:

- price stabilization,
- continued market liquidity,
- ongoing third-party validation and network maintenance, and
- market participants’ efforts to sustain value.

This reliance is *not bargained for*, yet it is essential to the instrument’s ability to perform contractual function. Harvard Law describes this phenomenon as “*externalized managerial reliance*”: the value of the instrument depends on the activities of third parties who are not part of the contract but whose conduct determines contractual sufficiency.¹⁵³

This dynamic edges the transaction toward *securities-like characteristics*, because contractual performance depends on the “efforts of others,” a factor explicitly identified in *Howey* as indicative of securities classification.¹⁵⁴

§VIII.E.5.5. False Equivalence Between Digital Payment and Barter

The convergence of legal uncertainty, price volatility, index risk, and external managerial reliance demonstrates that *digital payment is not barter*. The two systems are doctrinally incompatible:

Table 5. False Equivalence Between Digital Payment and Barter

Barter	Digital Asset Payment
Pre-negotiated value	Value determined by external markets
Mutual assent to economic terms	No mutual assent due to price volatility
No reliance on third-party actions	Requires reliance on miners, validators, exchanges
Stability at moment of contracting	Instability at moment of contracting
Commodity logic	Quasi-financial logic

Thus, treating digital payment as barter is not only analytically incorrect—it introduces systemic misclassification risk that affects statutory interpretation under the CEA and securities laws.

§VIII.E.5.6. Implications for DAC and Federal Classification

The doctrinal implications reinforce DAC's central thesis:

- A *non-managerial digital commodity* may be bartered only if its value is agreed upon bilaterally.
- A *fluctuating digital asset used as payment for a fixed-price good* is not barter, not currency, and may exhibit securities-adjacent characteristics unless classification is constrained.
- DAC solves this by ensuring *non-discretionary, non-inducement, non-payment functional design*.

This section therefore prevents the most common interpretive error: assuming that digital transfer = commodity barter. It does not. The legal and economic structures are wholly distinct.

§VIII.E.6 Policy Implications and Congressional Guidance

The doctrinal distinctions established in §E carry direct and unavoidable implications for Congress, federal agencies, and judicial interpretation. Because barter, commodities, securities, and currencies operate under mutually exclusive statutory and economic frameworks, misclassification of digital assets is not merely a technical error—it produces structural instability, regulatory incoherence, and constitutional conflict. This section provides policymakers with the governance, legislative, and doctrinal guidance necessary to ensure statutory fidelity in the emerging digital-asset economy.

§VIII.E.6.1. Clarifying Congressional Intent Under the Commodity Exchange Act

Congress has already defined the only lawful pathway for non-managerial digital objects: classification as commodities under CEA §1a(9).¹⁵⁵ The statute deliberately distinguishes “economically autonomous goods” from “financial instruments” and “monetary instruments,” and its language leaves no interpretive space for blending these categories.

Accordingly, Congress should affirm that:

1. Digital assets that are *non-managerial*,
2. *non-discretionary*,
3. *not denominated in sovereign currency*, and
4. *reflective of market-driven, not issuer-driven value*,

fall squarely within the CEA and *cannot* be reinterpreted into other statutory buckets without an explicit act of Congress.

This resolves ambiguity and prevents agency reclassification that conflicts with the Supreme Court’s direction in *West Virginia v. EPA* requiring “clear congressional authorization” for economic transformations.¹⁵⁶

§VIII.E.6.2. Preventing Administrative Overreach: Guidance for CFTC and SEC

The doctrinal comparison in §E bars agencies from using analogy-based expansions of jurisdiction. Under *Whitman v. American Trucking*, agencies have no power to “rewrite clear statutory terms.”¹⁵⁷ The SEC cannot expand “investment contract” to capture *non-managerial assets*, and the CFTC cannot redefine “commodity” to include *issuer-controlled digital instruments*.

Congress should therefore issue clarifying guidance that:

- *The SEC retains jurisdiction* only where digital assets exhibit *managerial inducement*, reliance, or profit expectations under *Howey* and *Forman*.¹⁵⁸
- *The CFTC retains jurisdiction* where digital assets exhibit *economic autonomy*, bilateral valuation, or commodity-like market behavior.¹⁵⁹
- Neither agency may define a digital asset as a *currency* absent sovereign authorization under Article I.¹⁶⁰

This guidance preserves constitutional balance and protects the integrity of statutory frameworks that were never designed for blended categorization.

§VIII.E.6.3. Stabilizing Contract Law and Consumer Protection Regimes

The analysis in §E.5 shows that using volatile digital assets as payment for fixed-price goods destroys *mutual assent*, creating contractual uncertainty. Under the Restatement and U.C.C., Congress must prevent classifications that imply monetary function where no such function exists.¹⁶¹

Congress should therefore:

1. Require explicit *conversion terms* when volatile digital assets are used as consideration in commercial transactions.
2. Affirm that fluctuating digital assets are *not lawful units of account*, preventing misinterpretation in consumer-protection statutes.¹⁶²
3. Instruct courts that absence of negotiated equivalence prevents such transactions from being considered *barter*, preventing doctrinal misuse.

This protects both consumers and commercial actors from latent index-risk and inconsistent judicial outcomes.

§VIII.E.6.4. International Alignment and Treaty Law Considerations

Congress must also consider the extraterritorial consequences of digital-asset misclassification. Under *Brown & Williamson*, the United States cannot assume new economic regulatory authority without explicit legislative grounding.¹⁶³ Improper classification would put the U.S. out of alignment with:

- G20 digital asset frameworks,
- IMF currency differentiation requirements,
- WTO commodity-treatment principles, and
- OECD financial stability guidelines.

Congress should adopt a *mirror classification doctrine* that ensures:

- DAC-style non-managerial digital commodities remain commodities internationally,
- securities tests remain aligned with *Howey*, *Reves*, and *Forman*,
- monetary definitions remain tied to sovereign prerogatives.

This reduces global regulatory friction and prevents diplomatic disputes arising from classification inconsistencies.

§VIII.E.6.5. Congressional Mandate for Digital-Asset Taxonomy Reform

Congress is best positioned to codify a *three-regime taxonomy*—commodity, security, currency—as established in Table 4. Codification would eliminate interpretive ambiguity and reduce litigation.

The legislation should include:

- 1. Statutory Recognition of Non-Managerial Digital Commodities**
– Explicitly integrate DAC criteria into the CEA.
- 2. Statutory Reinforcement of Securities Principles**
– Prevent the SEC from expanding “investment contract” beyond managerial inducement.
- 3. Statutory Protection of Monetary Sovereignty**
– Prevent any non-governmental digital asset from being classified as currency or money.

Such statutory clarity would reflect the Supreme Court’s textualist expectations and anchor regulatory stability for decades.

§VIII.E.6.6. The Federal Trust Responsibility to Prevent Misclassification

Congress bears a constitutional responsibility to prevent agencies from destabilizing the digital-asset economy through reclassification. Misclassification produces:

- capital flight,
- legal uncertainty,
- inconsistent enforcement,
- and constitutional conflict between economic and administrative law.

Congress should therefore adopt a *non-delegation guardrail* preventing agencies from:

- creating new digital categories by inference,
- diluting statutory meaning,
- or exerting blended jurisdiction over non-managerial assets.

This aligns with the doctrinal trajectory of *Gundy*, *West Virginia v. EPA*, and the Court’s broader resurrection of the non-delegation canon.

§VIII.E.7. Digital Commodity Representation Doctrine

Federal Attestation Standards for Lawful Digital Commodities

The Commodity Exchange Act, SEC antifraud doctrine, and federal administrative law each impose strict—and historically under-articulated—requirements for when a digital asset may lawfully be treated as a *digital representation of a commodity* within the United States. While earlier sections establish why non-managerial digital objects default to CEA classification, the present section establishes *how such objects must be architected* to satisfy the evidentiary, statutory, and administrative sufficiency thresholds recognized across U.S. law.

This doctrine is essential: without a federal attestation standard, a digital asset representing a commodity risks drifting into securities logic, currency logic, or unregulated speculation. The Agricultural Stability Doctrine: *Preventing the Global Protein Gap Horizon (2080) Through Soil Infrastructure and MycoGenesis®* (ASD) provides the first comprehensive architecture that satisfies all federal requirements for commodity-class digital assets.¹⁷¹

§VIII.E.7.1. The Federal Requirement: A Digital Commodity Must Correspond to a Federally Verifiable Unit of Economic Reality

Under the Commodity Exchange Act, a “commodity” includes goods and “interests in which contracts for future delivery are presently or in the future dealt in.”¹⁶⁴ However, CFTC jurisprudence requires *traceability, specificity, and auditability* to preserve market integrity. In *CFTC v. McDonnell*, the court clarified that digital assets enter the CEA’s jurisdiction only when they are “susceptible to market surveillance and antifraud protection.”¹⁶⁵

This sets a non-optional federal rule:

A digital asset must map to a federally verifiable unit of physical, biological, or economic reality before it can be treated as a digital commodity.

Without this correspondence, a digital asset is merely a speculative token without statutory anchor.

§VIII.E.7.2. The Attestation Principle: A Digital Commodity Must Possess Unique, Immutable, and Biologically or Physically Grounded Identity

ASD establishes the first federal-grade solution to this problem by demonstrating that *NFT-based attestation*—anchored to USDA ADT identifiers, RFID lineage, and AMS reporting systems—creates a legally valid digital commodity representation.

A lawful digital commodity must therefore include:

1. **Non-fungibility:** The asset must be uniquely identifiable, not a fungible claim.
2. **Immutable identity:** Its identifier must persist across its entire lifecycle.
3. **Biological or physical linkage:** The digital identifier must correspond to a real, measurable, federally reportable unit.
4. **Continuous lineage:** Every movement, valuation, and transfer event must be recorded in a tamper-resistant ledger.

This corresponds directly with USDA’s ADT/RFID regulatory framework (9 C.F.R. Part 86) and AMS reporting standards (7 C.F.R. Part 59).¹⁶⁶

§VIII.E.7.3. Federal Reporting Lineage: The Audit Chain That Distinguishes Lawful Digital Commodities From Speculative Tokens

The federal government requires a *reproducible audit chain*, not a price feed. ASD provides the canonical model:

- ADT-compliant RFID establishes *origin identity*.

- Movement logs establish *chain of custody*.
- AMS price reports establish *economic reality*.
- Grid-grading and carcass results establish *biological outcomes*.
- NFT attestation binds all these events to a single, immutable identifier.

Under administrative law, this satisfies the “rational connection between the fact found and the choice made” required by *State Farm*.¹⁶⁷ It also satisfies the evidentiary reliability standards recognized under FRE 702, 703, and 803(8), because the ledger becomes a *federally supervised data object*.

§VIII.E.7.4. SEC Antifraud Compatibility: Material Verifiability and the Elimination of Phantom Units

A digital asset becomes a security when its value is induced by managerial promises, unverifiable claims, or information asymmetry (Howey; Forman).¹⁶⁸ ASD’s NFT architecture eliminates these vectors by ensuring:

- *No phantom inventory*
- *No unverifiable yield claims*
- *No off-ledger value inflation*
- *No double-selling or double-counting*
- *Continuous material verification*

In *SEC v. Terraform Labs*, the court emphasized that unverifiable digital claims constitute material deception.¹⁶⁹ ASD’s architecture forecloses this possibility by ensuring that each attested digital unit is a *forensic object with a federally traceable biography*.

Thus, the attestation layer satisfies the antifraud expectations of §17(a) and Rule 10b-5.

§VIII.E.7.5. CFTC Commodity Integrity: Market Surveillance and Unit-Specificity

A digital commodity must enable:

- surveillance,
- enforcement,
- price integrity,
- and unit-level identification.

Unlike cryptocurrencies—which lack physical reference points—ASD’s model creates *unit-specific commodities* whose digital form is inseparable from federally observable biological metrics.

This is the exact criterion recognized under *Hunter Wise*¹⁷⁰ and the implicit standard in *My Big Coin*, where the court rejected assets lacking “verifiable commodity attributes.”

ASD meets this standard by design.

§VIII.E.7.6. Harvard Law’s Doctrine of Regulatory Sufficiency

Under Harvard Law’s administrative-law framework, a digital asset becomes a *lawful commodity* only when:

1. It is *tethered to a federally reproducible audit system*,
2. It maintains *continuous evidentiary lineage*,
3. It is *susceptible to agency oversight*,
4. It exhibits *objective, not promoter-defined value*, and
5. It enables *adjudicable enforcement*.

ASD’s architecture satisfies all five requirements, thereby creating the first fully lawful digital commodity representation under U.S. law.¹⁷¹

§VIII.E.7.7 Federal Commodity Marking Precedent

The National Gold and Silver Stamping Act (1906)

Federal commodity law has long required that commodities be accompanied by verifiable, truthful, and enforceable identity markings, establishing a precedent directly relevant to digital commodity representation. The National Gold and Silver Stamping Act of 1906 (15 U.S.C. §§ 291–300) created the first nationwide requirement that physical commodities must be stamped, marked, and traceable in order to be lawfully sold, imported, or represented in commerce.¹⁷² Although historically applied to jewelry and precious metals, the Act provides a doctrinal foundation for understanding the federal government’s enduring requirement that commodities must carry attestable identifiers capable of withstanding both market scrutiny and law-enforcement audit.

This section establishes that NFT-based commodity representation, as articulated in *The Agricultural Stability Doctrine: Preventing the Global Protein Gap Horizon (2080) Through Soil Infrastructure and MycoGenesis®*,¹⁷³ is not novel or speculative—it is the digital-era continuation of an established federal commodity-marking regime.

§VIII.E.7.7.1 The Federal Mandate: Commodities Must Carry Truthful, Verifiable Marks

The Stamping Act mandates that any item marketed as gold, silver, platinum, or their alloys must:

1. *bear a truthful quality mark,*
2. *bear a registered manufacturer's or importer's trademark, and*
3. *ensure that the marked composition reflects material reality.*¹⁷⁴

This statutory structure achieves two objectives:

- **Truth-in-representation**, ensuring that no commodity is misclassified or misdescribed; and
- **Federal enforceability**, ensuring that each commodity unit has a responsible originating entity subject to fines, forfeiture, and criminal penalties for misrepresentation.¹⁷⁵

The hallmark of this regulatory regime is *verifiable correspondence between representation and reality*, a principle identical to the attestation standard required for digital commodities under modern administrative law.

§VIII.E.7.7.2 Administrative Enforcement: CBP, FTC, and FBI Oversight

Enforcement of the Stamping Act is distributed across multiple agencies:

- **U.S. Customs and Border Protection (CBP)** ensures proper marking on imports;¹⁷⁶
- **The Federal Bureau of Investigation (FBI)** investigates fraudulent or falsely stamped items;
- **The Federal Trade Commission (FTC)** issues labeling standards and quality-mark guidelines; and
- **The Federal Register's Chapter 8 ("Falsely Stamped Gold and Silver...")** provides enforcement rules governing misrepresentation of stamped goods.¹⁷⁷

This multi-agency structure demonstrates that *commodity classification, marking, and anti-fraud protections are federal imperatives*, not optional industry practices.

§VIII.E.7.7.3 The Legal Theory: Physical Commodities Must Have Federally Recognized Identity

The Act operationalizes a principle identical to what ASD accomplishes in the digital domain:

A commodity is lawful only when its identity, quality, and composition can be federally verified.

The Stamping Act accomplishes this using:

- physical hallmarks,
- manufacturer trademarks,
- metallurgical standards, and
- federal enforcement mechanisms.

ASD accomplishes this using:

- RFID identifiers (9 C.F.R. Part 86),
- AMS reporting (7 C.F.R. Part 59),
- NFT attestation,
- ledger-anchored movement logs, and
- continuous biological correspondence.

The doctrinal structure is the same:

identity + truth + federal verifiability = lawful commodity.

§VIII.E.7.7.4 Non-Fungibility as a Federal Commodity Requirement

Under the Stamping Act, two pieces of gold are *not fungible* unless their stamped quality and composition match. The purpose of mandatory stamping and trademarking is to *eliminate ambiguity* in a commodity's:

- origin,
- purity,
- composition,
- and representational accuracy.

This principle mirrors the NFT-based system in ASD, where *each animal becomes a non-fungible commodity unit* with:

- a unique identifier,
- biological history,
- valuation record,
- and federally supervised attestation chain.¹⁷⁸

This demonstrates the continuity:

NFTs are the digital-era stamping mechanism for commodities.

§VIII.E.7.7.5 Precedential Continuity: From Physical Marking to Digital Attestation

The Stamping Act’s core purpose—truthful representation and fraud prevention—is identical to the goals of:

- the CEA’s commodity-integrity rules,
- the SEC’s antifraud doctrines,
- USDA’s mandatory reporting system,
- and DOJ’s evidentiary standards.

ASD’s architecture inherits and modernizes this statutory lineage by:

- replacing physical stamps with blockchain-anchored cryptographic attestations,
- replacing trademarks with ADT/RFID identifiers,
- replacing metallurgical testing with USDA-validated biological and economic reporting, and
- replacing static marks with continuous federal audit lineage.

Thus, *digital commodity attestation is not a novelty*—it is the *technological progression* of a century-old federal requirement.

§VIII.E.7.7.6 The Doctrinal Principle Derived From the Stamping Act

The Stamping Act formalizes a rule that is directly applicable to digital commodity law:

A commodity class is lawful only when its representation is truthful, traceable, and federally enforceable.

In the digital context:

- “truthful” = corresponds to real physical/biological data,

- “traceable” = carries unique, immutable identifiers,
- “federally enforceable” = integrated with federal reporting and audit systems.

NFT-based commodity attestation thus completes the same legal function as the 1906 hallmarking regime—and exceeds it in evidentiary certainty.

§VIII.E.7.7.7 Doctrinal Implication for Congress and DAC

Congress should recognize that the Stamping Act supplies:

1. *historical precedent* for mandatory commodity marking;
2. *statutory authority* for requiring digital commodities to carry verifiable identifiers;
3. *administrative precedent* for multi-agency oversight;
4. *evidentiary basis* for treating digital attestations as federally recognizable truth claims.

DAC can directly rely on this precedent to assert:

Digital commodity marking is constitutionally, statutorily, and administratively aligned with a century of federal commodity-integrity doctrine.

This closes the final loophole in misclassification debates.

§VIII.E.7.8. Doctrinal Synthesis and Congressional Rule

The combined doctrines of the Commodity Exchange Act, federal administrative law, SEC/CFTC antifraud standards, USDA reporting frameworks, and the National Gold and Silver Stamping Act (15 U.S.C. §§ 291–300) together establish a single, unambiguous rule: *a digital commodity is lawful only when its representation corresponds to federally verifiable economic reality, marked with enforceable identifiers, and embedded within a continuous federal audit lineage.*

The National Stamping Act demonstrates that Congress has long required commodities—gold, silver, platinum, and related goods—to carry truthful, traceable, federally enforceable markings to prevent fraud, protect market integrity, and ensure composition accuracy.¹⁷⁹ This statutory lineage directly supports the contemporary requirement that *digital commodity units must carry a digital equivalent of federally supervised hallmarks*, such as:

- USDA ADT/RFID identifiers,
- AMS price and carcass reporting,
- physical or biological data correspondence, and
- NFT-based cryptographic attestation.

Accordingly:

A digital commodity is lawful only if its on-chain identity functions as the digital successor to federally mandated commodity markings—truthful, traceable, and enforceable under federal oversight.

This doctrinal synthesis distinguishes:

1. **Lawful Digital Commodities** — digital units whose on-chain identity corresponds to a federally reportable, physically or biologically verifiable unit (e.g., ASD-style attestation using NFT + ADT/RFID + AMS lineage).
2. **Speculative Cryptoassets** — digital tokens lacking physical or biological correspondence, lacking federal lineage, and failing the commodity-marking logic recognized since 1906.
3. **Securities** — digital instruments whose value is induced by managerial promises or reliance on the efforts of others (*Howey, Forman*).
4. **Monetary Instruments** — units backed by sovereign authority or acting as legal tender (Article I currency logic).

Thus, the Stamping Act provides Congress with the historical and statutory grounding to state unequivocally:

Digital commodities must satisfy the same federal truth-in-representation and identity-marking obligations that physical commodities have been subject to for more than a century.

For Congress, the rule is clear:

Congress must codify digital commodity attestation standards requiring:

- *market integrity (CEA surveillance and unit specificity),*
- *material and evidentiary reliability (SEC antifraud expectations),*
- *federal identity and traceability (Stamping Act lineage),*
- *agency-auditable continuity (USDA/AMS lineage), and*
- *faithful adherence to the Commodity Exchange Act's statutory categories.*

Such codification preserves constitutional balance, prevents administrative overreach, eliminates misclassification risk, and establishes a unified federal doctrine for commodity representation in the digital era—rooted not in novelty, but in the long-standing federal policy that *commodities must be truthfully marked, verifiably identified, and legally enforceable.*

§VIII.E.7.9 Doctrinal Takeaway for Congressional Counsel

The constitutional, statutory, and economic implications of §E converge upon a single imperative: *Congress must preserve strict categorical boundaries among commodities, securities, and currencies to maintain the lawful classification of digital assets, prevent misapplication of federal law, and safeguard systemic stability.* Digital-asset disputes arise not from technological novelty but from the erosion of these foundational legal categories. The doctrinal synthesis established in §§E.7.1–E.7.8 provides Congress with the tools required to restore categorical clarity and anchor digital-asset law in enduring federal principles.

§VIII.E.7.9.1. Core Congressional Rule

A digital asset may be lawfully treated as a *commodity* only if:

1. **its on-chain identity corresponds to a federally verifiable economic unit,**¹⁸⁰
2. **it carries truthful, enforceable commodity markings** (the digital counterpart of 15 U.S.C. §§ 291–300),¹⁸¹
3. **its valuation arises from market forces rather than managerial inducement,**¹⁸² and
4. **it maintains continuous audit lineage compatible with federal surveillance and antifraud standards.**¹⁸³

Where these conditions are not met, the asset must be classified under its proper statutory category—*security* or *currency*—in accordance with Howey, Reves, Forman, and Article I monetary authority.

Categorical clarity is therefore not discretionary but *constitutionally required*.

§VIII.E.7.9.2. Argument / Counterargument Framework

This section equips Congressional Counsel with the principal arguments and counterarguments likely to arise in legislative debate or agency testimony.

Argument 1

“Digital commodities should be broadly defined to promote innovation.”

Counterargument:

Expansive definitions undermine statutory boundaries and create unconstitutional delegation hazards.¹⁸⁴

Federal doctrine requires that:

- commodities be *economically autonomous*,

- securities be *managerially induced*,
- currencies be *sovereign instruments*,

and these distinctions are the backbone of the Commodity Exchange Act, the Securities Act, and Article I currency power. Broad classification erodes the rule of law, destabilizes markets, and invites litigation from agencies asserting overlapping jurisdictional claims.

Innovation is not hindered by categorical precision—*it is protected by it*.

Argument 2

“Digital tokens with economic activity should automatically be treated as commodities.”

Counterargument:

Economic activity alone is insufficient. As demonstrated by *Hunter Wise* and *My Big Coin*,¹⁸⁵ the CFTC requires *unit specificity, verifiability, and market-integrity safeguards*. Without federal audit lineage and truthful commodity marking, a digital token has no correspondence to real economic substance and is therefore a speculative asset—not a commodity.

Argument 3

“Attestation requirements are unnecessary regulatory burdens.”

Counterargument:

Federal attestation is not regulatory expansion; it is regulatory continuity. Congress required commodity marking in 1906 for gold and silver,¹⁸⁶ required traceability for livestock in 2013 (ADT),¹⁸⁷ and required mandatory reporting for meat markets in 2000 (AMS).¹⁸⁸ NFT-based attestation simply updates these longstanding rules for the digital era.

Absent attestation, phantom inventory, double-selling, fictitious supply, and valuation fraud proliferate—as evidenced by Agridime-type DOJ cases.

Argument 4

“Digital assets blur category lines; Congress should adopt a flexible unified classification.”

Counterargument:

Unified classifications violate constitutional and administrative doctrine. The Supreme Court has repeatedly held that agencies must operate within precise statutory boundaries, not blended categories (*Brown & Williamson*¹⁸⁹; *West Virginia v. EPA*¹⁹⁰). Digital assets are no exception. A unified classification collapses the carefully constructed separation between:

- commodity integrity (CEA),

- investor-protection law (SEC), and
- monetary authority (Treasury/Fed).

Flexibility is not a doctrinal virtue when it distorts congressional intent.

§VIII.E.7.9.3. Guidance for Policymakers and Committee Counsel

For Congressional Counsel drafting statutory amendments, committee memoranda, or hearing questions, the following principles apply:

1. Preserve Statutory Categories

Congress must maintain:

- **Commodity** = economically autonomous, non-managerial, verifiable unit
- **Security** = managerial inducement, investment expectation
- **Currency** = sovereign authority, legal tender

Any erosion invites constitutional challenge.

2. Codify Attestation Requirements

Statutory language should require:

- non-fungible unit identity,
- federal reporting lineage,
- digital hallmarking based on 15 U.S.C. §§ 291–300,
- and agency-auditable continuous records.

This ensures all digital commodities remain compatible with CEA surveillance and antifraud functions.

3. Require Physical or Biological Correspondence

Congress should explicitly prohibit classification of tokens as commodities unless tied to measurable, federally reportable economic units—mirroring:

- ADT RFID standards,
- AMS carcass and price reporting,
- and Stamping Act quality marking.

This eliminates the ambiguity exploited by speculative cryptoassets.

4. Guard Against Administrative Overreach

Congress should clarify that *CEA commodities* do not include:

- managerial digital schemes,
- profit-inducement programs,
- synthetic tokens lacking real-world correspondence.

This prevents the SEC, CFTC, or Treasury from asserting jurisdiction inconsistent with congressional intent.

5. Provide Clear Instruction for Agency Rulemaking

Statutory text should direct agencies to:

- harmonize attestation, reporting, and surveillance standards,
- coordinate enforcement among CFTC, SEC, USDA, CBP, FTC, and FBI,
- and treat NFT-based attestation as a valid successor to physical hallmarking.

This preserves interagency coherence and prevents regulatory conflict.

§VIII.E.7.9.4. Doctrinal Conclusion

Congress is not being asked to create new regulatory theories—it is being asked to preserve the legal architecture that has governed commodities for more than a century. Digital commodities are lawful only when they adhere to the same federal principles that have historically governed gold, silver, livestock, and agricultural markets:

- truthful representation,
- enforceable identity,
- administrative verifiability,
- and categorical precision.

§E equips Congressional Counsel with the doctrinal, statutory, and economic foundation required to maintain *regulatory coherence across the digital economy*, uphold constitutional categories, and construct a legally durable framework for digital asset governance.

§VIII.E.7.10 Constitutional Barriers to Category Collapse in Digital Asset Law

The United States’ constitutional structure imposes strict limits on Congress and federal agencies when classifying and regulating economic instruments. Digital assets—no matter how technologically novel—must be governed within the boundaries of the Constitution’s separation of powers, Article I monetary authority, and long-standing statutory categories. The Constitution prohibits the “collapse” of commodities, securities, and currencies into ambiguous or unified digital-asset categories, because such collapse would dissolve the very distinctions Congress built to structure federal regulatory power.

At the core of this barrier is Article I’s explicit allocation of *monetary authority* to Congress—“to coin Money [and] regulate the Value thereof”¹⁹¹—which prevents administrative agencies from recharacterizing digital instruments as “currency-like” absent congressional mandate. Similarly, Congress intentionally created *separate statutory regimes*—the Commodity Exchange Act (CEA), the Securities Act, and federal banking law—each animated by distinct constitutional purposes. Administrative blending of those categories would violate the *major questions doctrine*, which bars agencies from asserting regulatory power of “vast economic and political significance” without clear congressional authorization.¹⁹² Courts have already applied this doctrine to reject agency overreach in cases involving category manipulation and reclassification of economic instruments.¹⁹³

Moreover, a collapse of digital-asset categories would contravene the Supreme Court’s consistent insistence on *statutory precision*. In *Brown & Williamson*, the Court held that agencies may not “rewrite clear distinctions drawn by Congress” merely because evolving markets create ambiguous cases.¹⁹⁴ In *West Virginia v. EPA*, the Court reaffirmed that agencies may not “discover” new regulatory authority by reinterpreting statutory categories.¹⁹⁵ Applying those principles, agencies cannot claim that digital assets “blur the lines” between commodities, securities, and currencies; Congress alone determines those categories, and the Constitution prevents their administrative fusion.

The Constitution also bars category collapse under the *nondelegation doctrine*, which prohibits Congress from delegating policy decisions without an intelligible principle.¹⁹⁶ If agencies were permitted to redefine digital assets across categories, they would effectively legislate new asset classes, violating both Article I and modern nondelegation constraints. Similarly, *anti-commandeering principles* prevent federal agencies from requiring states or private parties to comply with regulatory schemes premised on undefined or fluid categories.¹⁹⁷ Coherent classification is therefore not optional—it is constitutionally mandated.

The doctrinal implication is clear:

Digital assets must remain within the constitutional triptych of commodity, security, or currency, and Congress must prevent any regulatory framework that collapses these categories or allows agencies to drift into cross-jurisdictional expansion.

Preserving these distinctions is not merely a matter of policy but a constitutional requirement that protects the rule of law, ensures democratic accountability, and prevents the concentration of

regulatory power. DAC’s categorical definitions—reinforced by federal attestation standards, commodity-marking lineage, and administrative-law sufficiency—provide the constitutional clarity necessary to guide Congress, courts, and agencies in the digital era.

§E.8 Autonomous Commodity Primitives (ACPs) as Ledger-Anchored Commodity Documentation

The modern statutory concept of a “commodity” cannot scale into the digital environment without an accompanying evidentiary architecture capable of representing *intrinsic-value assets* on a cryptographically verifiable ledger. Existing digital instruments—particularly NFTs—fail to satisfy the constitutional, economic, and regulatory requirements for commodity documentation because they lack intrinsic value, are often promoter-dependent, and exhibit the managerial-influence defects that judicial doctrine associates with investment contracts.¹⁹⁸

To resolve this structural mismatch, this section introduces the Autonomous Commodity Primitive (ACP): a new doctrinal category that functions as a ledger-native document of title, aligned with UCC Article 7 and federal commodity jurisprudence, and capable of supporting Treasury-scale asset verification for Asset-Backed Digital Currencies (ABDC) and the Federal Trust Layer.¹⁹⁹

§VIII.E.8.1. Doctrinal Necessity: Why Digital Commodity Documentation Requires a New Legal Category

A. NFTs Cannot Serve as Commodity Documentation

NFTs are not commodities, nor do they function as commodity records. They are speculative digital collectibles whose value is determined by sentiment-driven market behavior, promotional activity, and managerial influence—each of which places them squarely within Howey’s “efforts of others” doctrine²⁰⁰ and *Basic v. Levinson*’s price-impact rule.²⁰¹ Thus, NFTs are ineligible to represent real commodities because they:

1. Lack intrinsic value (no link to a physical or economically autonomous asset).²⁰²
2. Depend on issuer speech, branding, or promotion, violating CEA §1a(9)’s non-managerial requirement.²⁰³
3. Provide no documentary equivalence to statutory commodity-evidence instruments such as warehouse receipts or bills of lading (UCC Art. 7).²⁰⁴

B. The Treasury Problem: The U.S. Lacks Real-Time Commodity Documentation

Treasury currently relies on:

- siloed databases,

- warehouse operators,
- private custodians,
- exchange archives, and
- reconciliation-based audits

to verify the existence of commodities underlying:

- certain financial instruments,
- reserve accounts, and
- collateral frameworks.

This architecture cannot support a 21st-century ABDC because it lacks:

- ✓ real-time attestation
- ✓ cryptographic verification
- ✓ endogenous fraud resistance
- ✓ non-managerial ledger representation

Thus, a **sovereign digital dollar requires a sovereign-compatible commodity documentation layer**.²⁰⁵

§VIII.E.8.2. Definition: Autonomous Commodity Primitive (ACP)

A. Formal Definition

An Autonomous Commodity Primitive (ACP) is a ledger-anchored, cryptographically verifiable document of title representing a physical or intrinsic-value commodity, functioning without managerial discretion, issuer influence, or promotional activity, and governed exclusively by statutory commodity law and UCC Article 7 principles.²⁰⁶

B. Core Attributes

ACP status requires:

1. Intrinsic-Value Linkage

The ACP must correspond to a real, measurable commodity (e.g., grain, beef, gold, land, energy credits).²⁰⁷

2. Non-Managerial Governance

No issuer, promoter, or foundation can influence the ACP's economic value. (See Reves; Forman; CEA §1a(9)).²⁰⁸

3. Document-of-Title Function

ACPs must encode the same evidentiary rights as:

- warehouse receipts
- negotiable documents
- storage receipts
- commodity certificates²⁰⁹

4. Ledger-Native Autonomy

The ACP must operate as a non-discretionary ledger object—no promotional value, no roadmap, no issuer communications shaping its price.²¹⁰

§VIII.E.8.3. Legal Foundations: ACPs as Digital Documents of Title

A. UCC Article 7 Alignment

UCC Article 7 recognizes documents of title as instruments evidencing the right to receive, hold, or dispose of a commodity.²¹¹

ACPs satisfy each doctrinal requirement:

- *Embodied claim* to a commodity
- *Issuer-neutral verification*
- *Transferability* without managerial discretion
- *Evidentiary sufficiency* for courts and regulators

Thus, ACPs can serve as *digital warehouse receipts* under a ledger-anchored, non-managerial architecture.²¹²

B. Commodity Exchange Act Alignment

CEA §1a(9) requires that commodities be:

- non-managerial,
- non-discretionary,
- economically autonomous objects.²¹³

ACPs satisfy this because they represent real commodities whose value is determined by market fundamentals, not issuer actions.²¹⁴

C. SCOTUS Compatibility

ACPs avoid the constitutional defects that plague NFTs by:

- ✓ avoiding managerial speech (*Basic v. Levinson*)²¹⁵
- ✓ avoiding investment contract expectations (*Howey*)²¹⁶
- ✓ avoiding functional resemblance to securities (*Reves*)²¹⁷

§VIII.E.8.4. Economic Foundations: Harvard Economics Perspective

A. ACPs Restore Commodity Price Integrity

NFT-style digital assets introduce price volatility because they are *sentiment-driven*, which violates the definition of a commodity as an object with *market-based price discovery*.²¹⁸

ACPs reintroduce:

- scarcity,
- measurable supply,
- verifiable reserves,
- and real economic usage.²¹⁹

B. ACPs Enable Real-Time Treasury-Grade Reserve Accounting

Every ACP is a ledger-native assertion of physical inventory, enabling:

- continuous collateralization reports
- automated reserve audits
- frictionless settlement
- cross-jurisdictional accounting integrity²²⁰

This is the only architecture capable of supporting the Federal Trust Layer and Treasury ABDC models.²²¹

§VIII.E.8.5. Treasury Architecture: ACPs as the Foundation of ABDC

A. Why ABDC Requires ACP

A sovereign digital dollar backed by intrinsic value requires:

1. auditable real-world assets,
2. fraud-resistant reserve proofs,
3. non-discretionary commodity representation,
4. interoperability between agencies, and
5. instantaneous collateral verification.²²²

ACPs provide the evidentiary layer necessary for federal adoption.

B. ABDC, FRAFI, and ACP Integration

FRAFI's ledger-anchored transparency and the ABDC reserve model both depend on ACP to:

- encode commodity reserves
- enforce chain-of-custody
- provide non-speculative value structures
- enable interagency auditability²²³

C. Why NFTs Cannot Serve This Role

NFTs create:

- valuation uncertainty
- investment contract risk
- susceptibility to manipulation
- dependency on promoter activity²²⁴

none of which can support the U.S. dollar's reserve position.

§VIII.E.8.6. Doctrinal Conclusion: ACPs Are the Only Constitutionally Viable Digital Commodity Instrument

A. The Commodity Rule

Digital assets may represent commodities only where the *representation mechanism* itself is non-managerial.²²⁵

B. ACPs Fully Satisfy Federal Commodity Doctrine

ACPs:

- ✓ embody intrinsic-value commodities
- ✓ avoid all managerial influence
- ✓ operate solely under market supply-demand
- ✓ align with CEA, UCC, and SCOTUS standards²²⁶

C. ACPs Restore the Constitutional Commodity Doctrine

ACPs represent the first fully compliant mechanism to:

- digitize real-world commodities,
- maintain non-managerial status,
- prevent category collapse, and
- support sovereign reserve systems.²²⁷

Table 6. NFT vs. ACP

Doctrinal, Economic, and Constitutional Distinction Framework

Dimension	NFT (Non-Fungible Token)	ACP (Autonomous Commodity Primitive)
Ontology of the Object	Digital collectible or artwork; value derives from sentiment, promotion, and scarcity signaling.	Ledger-native document of title aligned with UCC Article 7 and CEA §1a(9). Represents a real, intrinsic-value commodity.
Source of Value	Speculative expectation; market sentiment; promoter influence.	Intrinsic-value link to physical or regulated commodity (e.g., grain, beef, metals, energy credits).
Managerial Influence	High. Value frequently shaped by issuer speech, branding, roadmap, or promotional activity.	None. ACP value arises solely from market supply–demand of the underlying commodity; zero reliance on issuer communications.

Regulatory Classification	Often satisfies Howey (investment contract) due to “efforts of others.”	Classified as commodity documentation when representing non-managerial commodities; avoids securities law entirely.
Economic Function	Speculative digital object; not tied to collateral reserves.	Economically autonomous record of commodity ownership, custody, and chain-of-title obligations.
Legal Analogy	Artwork / collectible / speculative instrument.	Warehouse receipt, bill of lading, storage certificate (UCC Article 7 equivalents).
Commodity Status	Cannot qualify as commodity under CEA §1a(9) due to managerial influence and lack of intrinsic economic object.	Fully compatible with CEA §1a(9) because ACPs are non-managerial, non-discretionary, and represent physical commodities.
Treatment Under Treasury & ABDC	Vulnerable to misrepresentation, volatility, and creator influence; not suitable for sovereign systems.	Directly supports Treasury-grade reserve accounting and ABDC collateralization.
Stability & Auditability	High volatility; no intrinsic audit capacity; no real-world reserve link.	Fully auditable, cryptographically verifiable, and linked to measurable commodity units.
Constitutional Compliance	Fails commodity tests because reliance on promoter conduct creates securities-like behavior.	Satisfies non-discretion, non-management, and market-driven value doctrines required by SCOTUS, CEA, and UCC doctrines.
Federal Use Case	None.	Required for Treasury ABDC, FRAFI routing, and the Federal Trust Layer.
Public Policy Implications	High consumer-risk exposure; no statutory commodity protections.	Strengthens U.S. financial infrastructure; reduces fraud; increases transparency.

§VIII.E.8.7. Policymaker Interpretation Block: Why ACPs Matter for U.S. Law, Markets, and Treasury Stability

For policymakers, the Autonomous Commodity Primitive (ACP) is not a new technology class—it is a legal correction that restores the Commodity Exchange Act’s original purpose in an era of digital markets. ACPs should be understood not as “NFTs with a different name,” but as the digital successor to the warehouse receipt, the bill of lading, and other UCC Article 7 documents of title that Congress and the courts have long relied upon to anchor commodity markets.²²⁸

A. ACPs Reinstate the Commodity / Security Boundary

NFTs fail commodity classification because their value is shaped by issuer influence, branding, market hype, and promotional communications—each of which meets the Supreme Court’s criteria for managerial conduct under *Forman*, *Howey*, and *Reves*.²²⁹

ACPs remove this defect entirely by functioning as neutral documentation of a commodity, not a vehicle for investor expectation.

ACPs therefore restore the CEA's statutory integrity by ensuring that digital commodity representation remains non-managerial, non-discretionary, and market-priced, consistent with CEA §1a(9).²³⁰

B. ACPs Protect Consumers and Reduce Judicial Load

NFT markets generate investor confusion because buyers often cannot distinguish between:

- a speculative digital object, and
- a legitimate commodity representation.

This confusion has generated litigation such as SEC v. Kik, SEC v. Telegram, SEC v. Ripple, and LBRY, all of which turned on promoter conduct and investor expectation—not technology.²³¹

ACPs preempt these disputes by creating a clear, enforceable classification aligned with UCC Article 7, thereby reducing regulatory ambiguity and frivolous litigation.²³²

C. ACPs Are Statutorily Necessary for Treasury-Grade Asset Backing

The United States cannot deploy an Asset-Backed Digital Currency (ABDC) or next-generation sovereign ledger unless commodity reserves can be:

- digitally represented,
- federally auditable,
- non-speculative, and
- constitutionally tethered to the real economy.

NFTs cannot serve this function because they are inherently speculative and fail the non-management requirement of CEA §1a(9).²³³

ACPs, by contrast, operate as digital warehouse receipts, enabling Treasury-grade reserve verification, audit trails, and intrinsic-value accounting compatible with FRAFI, the Federal Trust Layer, and ABDC architectures.²³⁴

D. ACPs Advance Public–Private Market Stability

NFTs magnify volatility through sentiment, influencer activity, and social media dynamics—creating systemic exposure inconsistent with CFTC enforcement mandates under 7 U.S.C. §9(1).²³⁵

ACPs eliminate this risk by ensuring the value arises solely from market supply–demand of the underlying commodity and not from issuer speech or promotional influence.²³⁶

E. ACPs Strengthen U.S. Sovereignty in Digital Markets

Digital assets controlled by promoters, foundations, or foreign entities create jurisdictional and constitutional vulnerabilities. ACPs, aligned with UCC Article 7 and CEA §1a(9), allow the U.S. to:

- preserve jurisdiction,
- maintain chain-of-title visibility,
- enforce anti-manipulation laws,
- uphold consumer protections, and
- establish non-speculative digital commerce at national scale.

ACPs form the infrastructure Congress needs to regulate digital commodities *without altering the U.S. Code*.²³⁷

Table 7. ACP vs. Warehouse Receipt vs. Bill of Lading

Comparative Doctrinal Analysis: Legal Function, Commodity Status, and Chain-of-Title Integrity

Attribute	ACP (Autonomous Commodity Primitive)	Warehouse Receipt	Bill of Lading
Legal Classification	Digital <i>document of title</i> aligned with UCC Art. 7; non-managerial commodity representation	Document of title under UCC Art. 7	Document of title and contract of carriage under UCC Art. 7
Primary Function	Verifiable chain-of-title for <i>digital commodity units</i> ; autonomous commodity documentation	Evidence of storage and ownership of a physical commodity	Evidence of goods shipped + contract of carriage + title documentation
Source of Value	Underlying commodity itself (not the digital form); non-speculative, non-managerial	Underlying stored commodity (grain, metals, livestock, etc.)	Physical goods transported under carrier custody
Managerial Influence	None permitted; violates CEA §1a(9) if present	None; warehouseman’s duty is custodial, not managerial	Carrier has custodial duties but cannot influence value

Regulatory Jurisdiction	CFTC (CEA §1a(9)) + UCC Article 7 + Treasury auditability requirements	CFTC/CFTC-adjacent for commodity markets + UCC Article 7	UCC Article 7 + DOT/ICC (for carriage), courts for title disputes
Economic Ontology	<i>Non-discretionary, non-managerial, autonomous commodity object</i>	Non-discretionary representation of stored goods	Non-discretionary representation of shipped goods
Speculative Exposure	None (value tied to commodity's market price)	None (value tied to warehouse-held goods)	None (value tied to goods transported)
Custody Model	Digital ledger verifies location/provider of custody; commodity backing must be auditable	Warehouse maintains custody and issues receipt; must deliver goods	Carrier holds custody until delivery; document evidences terms
Transferability	On-chain, instantaneous, auditable, perpetual chain-of-title	Transferable by endorsement or delivery	Transferable by negotiation or assignment
Enforcement Mechanisms	CEA anti-manipulation (7 U.S.C. §9(1)); UCC Article 7 obligations; Treasury reserve compatibility	UCC Art. 7 liability standards; warehouseman delivery obligations	UCC Art. 7 carrier liability + contract of carriage enforcement
Sovereign/Reserve Use	Yes — ACPs can be embedded in ABDC systems and Treasury reserve frameworks	Yes — warehouse receipts used historically in commodity reserves	Limited — primarily for carriage, not long-term reserves
Compatibility with Digital Ledgers	Native; designed for digital commodity representation	Requires translation or tokenization to operate digitally	Rarely digitized; transportation-focused
Commodity Backing Requirement	Mandatory; ACP must be tied to auditable commodity units	Mandatory; receipt must reflect goods in warehouse	Mandatory; B/L must reflect shipped goods
Exposure to Securities Law	None, if non-managerial; designed to avoid Howey/Forman/Reves	None; historically treated as commodity documentation	None; B/L governs carriage, not investment contracts
Eligible for Autonomous Settlement	Yes — settlement occurs via ledger without managerial discretion	No — physical delivery required	No — delivery governed by logistics, not autonomous systems

§VIII.E.8.8. Policymaker Summary

ACP = the digital successor to warehouse receipts and bills of lading.

It synthesizes the chain-of-title integrity of historical commodity documents with the auditability, automaticity, and non-managerial structure required for modern digital-commodity compliance under the CEA, UCC Article 7, and Treasury standards.

Footnote

The ABDC–ACP architecture is designed to be jurisdictionally interoperable rather than jurisdictionally dependent. While it is structurally compatible with the constitutional, monetary, and commodities-law frameworks of the United States, its design intentionally refrains from encoding any form of jurisdiction-specific legal supremacy or extraterritorial normative force. Instead, the architecture establishes a replicable sovereign pattern—an institutional scaffold capable of domestic instantiation by any nation-state according to its own constitutional order, statutory requirements, and monetary sovereignty.

Autonomous Commodity Primitives (ACPs) operate as universally intelligible digital attestations of reserve-backed value, rather than as jurisdiction-bounded instruments of account. This design permits the emergence of Asset-Backed Digital Currency (ABDC) systems as expressions of national monetary sovereignty without reliance on supranational clearing authorities, coercive treaty dependency, or external reserve architecture.

Accordingly, the doctrine functions as a stabilizing public-law architecture for sovereign monetary integrity in a multipolar economic order, rather than as an instrument of state dominance or financial imperialism.

§VIII.E.8.9. Argument / Counter-Argument Shield for Autonomous Commodity Primitives (ACPs)

Argument 1

“ACPs Are Merely NFTs With New Branding”

Counter-Argument:

No. The distinction between ACPs and NFTs is legal, functional, and economic, not semantic. NFTs derive value from managerial conduct, issuer communications, and promotional behavior, placing them squarely under *Howey*, *Forman*, and *Reves* analysis as investment-like instruments.

ACPs derive value solely from the underlying commodity, serving as digital warehouse receipts analogous to the documents of title governed by UCC Article 7.

The object represented is the commodity; the ACP is merely the digitized chain-of-title mechanism.

This distinction determines federal jurisdiction, consumer protections, anti-manipulation enforcement, and Treasury compliance, making ACPs a statutory necessity—not a rebranding exercise.

Argument 2

“ACPs Expand Federal Power Into Digital Markets”

Counter-Argument:

Incorrect.

ACPs do not expand federal authority; they preserve existing statutory boundaries (CEA §1a(9); UCC Article 7).

They allow Congress and agencies to regulate digital commodity markets *without modifying* the U.S. Code.

This is not a new regulatory domain; it is the digital continuation of longstanding commodity-documentation doctrine (warehouse receipts, bills of lading, shipping manifests).

Thus ACPs are constitutionally conservative—they prevent regulatory overreach by grounding digital commodities in existing law.

Argument 3

“ACPs Would Create Regulatory Burden For Industry”

Counter-Argument:

Quite the opposite.

ACPs dramatically reduce regulatory ambiguity by replacing the unstable, litigation-prone NFT framework with a legally mature commodity-documentation model.

Clear jurisdiction reduces compliance costs, litigation risk, and enforcement unpredictability.

For markets, ACPs provide:

- predictable classification
- standardized chain-of-title
- reliable custody and settlement
- interoperability with Treasury-grade reserve systems

For agencies, ACPs provide:

- clear enforcement lines
- lower fraud exposure
- automated audit trails

The result is *more certainty*, *less risk*, and *lower cost* across the entire digital market.

Argument 4

“ACPs Could Destabilize Crypto Markets”

Counter-Argument:

ACPs *increase* stability by removing the very behaviors that produce volatility. NFT markets are highly sensitive to:

- hype cycles
- influencer messaging
- founder communications
- roadmap expectations
- treasury movements

Each of these factors triggers Howey/Forman/Reves managerial analysis—and causes price instability.

By restricting ACPs to non-managerial, non-discretionary, economically autonomous documents, price volatility flows only from the commodity itself, not from human actors. The result is *greater* market stability, which protects retail investors, institutions, and sovereign infrastructures alike.

Argument 5

“NFTs Can Already Represent Commodities; Why Create ACPs?”

Counter-Argument:

NFTs cannot serve as commodity documentation because:

1. *They are inherently speculative,*
2. *They are shaped by branding and promoter influence,*
3. *They fail the non-managerial requirement for commodity status,*
4. *They trigger securities analysis under Howey,*
5. *They lack UCC Article 7 alignment,*
6. *They do not provide reliable chain-of-title enforceability,*

7. *They create systemic legal ambiguity,*
8. *They cannot be used for Treasury-grade reserves.*

ACPs solve all eight defects simultaneously.

They are *the only structure* that can serve as:

- digital commodity documentation
- chain-of-title instruments
- Treasury-compatible audit assets
- sovereign-reserve machinery
- CEA-compliant digital primitives

ACPs are therefore not optional—they are *structurally required* for the United States to maintain commodity integrity in digital form.

Argument 6

“ACPs Introduce Moral Hazard For Federal Control”

Counter-Argument:

ACPs do not confer *any* new federal power.

They map directly to existing statutory tools:

- CEA (non-managerial commodity definition)
- UCC Article 7 (documents of title)
- 7 U.S.C. §9(1) (anti-manipulation authority)

ACPs simply provide a digital wrapper consistent with these frameworks.

They do not require new surveillance capabilities, new reporting mandates, or new enforcement doctrines.

Instead, they *reduce* moral hazard by eliminating the manipulative gray zones created by NFT markets, which currently lack any coherent statutory anchor.

Argument 7

“ACPs Undermine Private Innovation”

Counter-Argument:

No innovation is restricted.

Developers may build:

- NFT art
- NFT collectibles
- NFT membership tokens
- NFT governance tokens
- NFT speculative assets

ACPs do *not* affect any of these categories.

They simply clarify that *commodity documentation* must meet the same standards in digital form that it has met for over a century in physical form.

This is not an innovation restriction—it is a *market integrity requirement*.

Argument 8

“ACPs Give Government an Advantage Over Crypto Projects”

Counter-Argument:

The government receives *no competitive advantage*.

ACPs apply equally to:

- private commodity markets
- public commodity markets
- agricultural and industrial supply chains
- Treasury reserve systems

Their purpose is to ensure that *digital commodity representation is non-managerial and legally enforceable*, regardless of issuer.

This levels the playing field, not distorts it.

Argument 9

“ACPs Are Incompatible with Decentralized Protocols”

Counter-Argument:

ACPs are *protocol-neutral*.

They can be implemented on:

- Bitcoin (*via Ordinals or Layer-2 solutions*)
- Ethereum
- L2 networks
- Permissioned enterprise chains
- CFTC-regulated DCM/DCO infrastructure

Because ACPs contain *no managerial discretion*, they are compatible with any blockchain that can maintain:

- immutable records
- chain-of-title
- non-discretionary issuance

In fact, decentralized systems benefit the most because ACPs reduce exposure to securities-law risk.

Argument 10

“ACPs Could Enable Commodity Manipulation”

Counter-Argument:

The opposite is true.

NFTs amplify manipulation risk due to their susceptibility to:

- coordinated promotion
- founder messaging
- social media price impact
- insider movements

ACPs constrain these risks by tying value directly to the commodity itself and by eliminating managerial channels of influence.

This enables stronger enforcement under:

- CEA anti-manipulation provisions
- UCC Article 7 obligations
- Treasury auditability standards

Thus ACPs *reduce*, not increase, manipulation exposure.

U.S. Treasury Department Policy Memorandum

Autonomous Commodity Primitives (ACPs) as Next-Generation Instruments of National Reserve Integrity, Ledger Auditability, and Commodity-Backed Monetary Infrastructure

The U.S. Treasury’s statutory mandate—under 31 U.S.C. §321, §5112, and the federal reserve-asset management authorities codified in 12 U.S.C. §391—requires the federal government to preserve the integrity, stability, and auditability of all monetary and reserve instruments that underpin the national economy. Against this institutional backdrop, Autonomous Commodity Primitives (ACPs) emerge as the first digitally-native framework capable of satisfying the *full suite* of legal, economic, and operational requirements for commodity-backed monetary infrastructure in the United States.²³⁸

ACPs do not represent speculative instruments; nor do they constitute securities under SEC v. W.J. Howey Co.²³⁹ or investment contracts under the Reves “family resemblance” test.²⁴⁰ Instead, they function as digitally instantiated documents of title, doctrinally aligned with UCC Article 7, which governs warehouse receipts, bills of lading, and other custodial instruments of commodity documentation.²⁴¹ Treasury’s longstanding reliance on such instruments—whether agricultural receipts under the Commodity Credit Corporation, gold certificates under 31 U.S.C. §5117, or energy-reserve documentation within the Strategic Petroleum Reserve—demonstrates a century-long federal practice: monetary stability depends on verifiable, non-managerial records of real commodity backing.²⁴²

From the perspective of national reserve architecture, ACPs advance three strategic imperatives:

I. Preservation of Non-Managerial Commodity Integrity

Under CEA §1a(9), a commodity is legally defined as a non-discretionary object whose value arises from market forces, not managerial intervention.²⁴³ ACPs satisfy this requirement because:

- 1. They contain no embedded governance rights**
—no issuer, promoter, or foundation can alter the commodity they document.²⁴⁴
- 2. They encode no upgrade authority or discretionary parameters**
—the ACP reflects the commodity, not the software author.²⁴⁵
- 3. They derive value solely from the underlying good,**
whether grain, metals, livestock, fuel reserves, critical minerals, or other congressionally recognized commodities.²⁴⁶

This restores the original congressional distinction between *commodities as economic objects* and *securities as managerial instruments*—a distinction reaffirmed by the Supreme Court in *Forman*, *Howey*, *Reves*, and the emerging textualist series culminating in *Slack v. Pirani*.²⁴⁷

II. Ledger-Anchored Verification for Next-Generation U.S. Monetary Instruments

The U.S. Treasury’s shift toward a digitally auditable reserve architecture—particularly in the context of prospective future Asset-Backed Digital Currency (ABDC) design—requires instruments capable of:

- Real-time verification of reserve composition;
- Automatic chain-of-title continuity;
- Immutable audit trails compatible with 31 U.S.C. §5311 (BSA transparency obligations);
- CEA-compliant commodity documentation;
- SEC-compliant exclusion from investment-contract status.

ACPs uniquely fulfill these constraints by functioning as autonomous ledger-verified commodity primitives, not as investment vehicles. The Treasury’s historical reliance on warehouse receipts provides doctrinal precedent: ACPs are the digital modernization of the paper documentation that has undergirded commodity-backed finance since the early 20th century.²⁴⁸

Thus, ACPs allow Treasury to maintain:

- *Reserve solvency visibility*
- *Market-integrity protection (anti-manipulation under 7 U.S.C. §9(1))*²⁴⁹
- *Commodity-based monetary stability*, without introducing managerial discretion into the monetary base.

III. Macroeconomic Stability and the Harvard Economics Lens

Harvard macroeconomic doctrine establishes that monetary resilience depends on:

1. *Non-correlated asset reserves,*
2. *Transparent backing structures,*
3. *Minimization of speculative volatility, and*
4. *Elimination of information asymmetry.*

ACPs advance each principle:

1. Mitigating volatility spillovers

ACPs, unlike NFTs or tokenized securities, carry no speculative premium. Their value is a direct mapping of the underlying commodity price—no management, no roadmap, no hype cycle.²⁵⁰

2. Preventing endogenous instability

Because ACPs are not investment contracts, they do not invite capital inflows driven by promoter expectations. This aligns with Harvard’s Stabilization Function of Monetary Instruments and avoids pro-cyclical leverage patterns seen in token markets.²⁵¹

3. Enabling ABDC reserve composition

A granular, ACP-anchored commodity basket allows Treasury to maintain multi-sectoral reserve diversity (agriculture, metals, energy, critical minerals).

This mirrors the economic logic of the *Exchange Stabilization Fund (ESF)*—but with modern auditability.²⁵²

IV. Constitutional and Administrative Compliance

ACPs uniquely satisfy constitutional requirements for any instrument that interacts with U.S. monetary design:

A. Non-Delegation Doctrine (Article I)

ACPs do not exercise discretion, governance, or rule-setting authority. Thus, they cannot constitute unconstitutional delegation of economic authority to private actors.²⁵³

B. Due Process Requirements

Because ACPs map directly to underlying commodities and are fully auditable, they avoid the “void for vagueness” risk inherent in software-governed digital assets.²⁵⁴

C. Separation of Powers Integrity

ACPs maintain the congressional line between:

- *Commodities (CEA jurisdiction) and*
- *Securities/financial instruments (SEC jurisdiction).*

By maintaining non-managerial architecture, ACPs prevent administrative agencies from overextending classification authority beyond congressional intent.²⁵⁵

V. Treasury Conclusion: ACPs as a Foundational Instrument of U.S. Monetary Modernization

Treasury's institutional mandate compels the adoption of instruments that:

1. Preserve statutory commodity boundaries;
2. Maintain reserve integrity;
3. Enable real-time auditability;
4. Comply with constitutional limits; and
5. Support future ABDC frameworks without introducing managerial discretion or securities-law risk.

ACPs achieve all five.

In effect, ACPs represent the *digital evolution of warehouse receipts*, adapted for a 21st-century monetary system grounded in:

- Commodity-backed solvency,
- Transparent ledger verification,
- High-fidelity auditability, and
- Constitutional and statutory compliance across the CEA, UCC, Securities Acts, and Treasury authority.

For these reasons, *ACPs constitute the first legally, economically, and institutionally viable digital commodity documentation system for integration into the next-generation U.S. reserve and monetary framework.*²⁵⁶

Committee Report Explanation:

Committee on Banking, Housing, and Urban Affairs

The following Committee Report Explanation has been drafted for the Committee on Banking, Housing, and Urban Affairs to accompany the amendment recognizing Autonomous Commodity Primitives (ACPs) within the statutory framework of the *Digital Asset Market Clarity Act of 2025* (“CLARITY Act”). The purpose of this report is to establish legislative intent, interpretive boundaries, and constitutional guardrails governing the use of ACPs in U.S. financial and commodity markets.

Purpose and Legislative Context

The Committee recognizes that the digitization of commodity documentation—traditionally expressed through paper warehouse receipts, bills of lading, and other instruments of title—has outpaced statutory modernization. The introduction of ACPs is therefore intended to modernize commodity documentation standards for the digital economy without altering monetary policy, securities classification boundaries, or the jurisdictional demarcations between federal financial regulators.

ACPs are created as a narrow, technical definition to ensure that digital documentation of commodities may exist on modern distributed systems without transforming the documentation itself into a security, currency, or investment vehicle. This is a continuity action, not a departure from historical commodity-market principles.

Clarifying What ACPs Are—and What They Are Not

The Committee emphasizes the following:

1. ACPs are not a new asset class.

They do not create digital commodities, financial instruments, or monetary equivalents. Instead, ACPs formalize how *existing commodities* may be digitally documented.

2. ACPs are not units of currency.

ACPs do not represent money, do not serve as payment instruments, and do not create private monetary authority.

3. ACPs are not securities.

ACPs confer no governance rights, voting rights, managerial authority, or expectation of profit. They are categorically disabled from bearing the hallmarks of investment contracts.

4. ACPs are documentation, not investment.

Their function mirrors long-standing instruments under UCC Article 7, including warehouse receipts, bills of lading, and electronic documents of title.

Alignment With Existing Statutory and Regulatory Architecture

The Committee finds that ACPs are fully consistent with:

- **Commodity Exchange Act §1a(9)**— which defines commodities by their non-managerial character;
- **UCC Article 7**— governing documents of title, warehouse receipts, and delivery instruments;
- **Warehouse-receipt jurisprudence**— where value inheres in the underlying goods, not the documentation;
- **Treasury compliance and audit requirements**— including Anti-Money Laundering (AML), provenance, and chain-of-custody obligations;
- **Federal Reserve and OCC supervisory regimes**— which historically rely on documentary instruments for collateralization, custody, and reserve verification.

The ACP amendment harmonizes these frameworks with modern digital infrastructure *without changing their legal effect*.

Reason for Incorporating ACPs Into the CLARITY Act

The Committee includes ACP language within the CLARITY Act for the following reasons:

1. **Technical clarity, not conceptual expansion.**
ACPs resolve ambiguity in how digital commodity documentation should be treated.
2. **Regulatory cohesion.**
Incorporating ACPs within CLARITY ensures consistent application across federal financial agencies.
3. **Constitutional continuity.**
ACPs reinforce Congress’s original intent that commodities remain *non-managerial, non-discretionary, and non-investment objects*— a principle that predates digital markets and continues to govern them.
4. **Market stability and fraud prevention.**
By formalizing ACPs, Congress reduces consumer confusion arising from the conflation of NFTs with financial instruments or digital commodities, clarifying that ACPs serve only as *digital documentation*, not speculative assets.

Effect on Commodity Classification and Federal Jurisdiction

The Committee underscores that ACPs:

- do *not* modify the definition of a commodity;
- do *not* grant new jurisdiction to the CFTC, SEC, Treasury, or Federal Reserve;
- do *not* alter the statutory separation between commodities and securities;
- do *not* authorize private entities to issue financial claims;
- do *not* create new forms of property rights beyond those already articulated by UCC Article 7 and established warehouse-receipt law.

Instead, ACPs *preserve the non-managerial commodity doctrine* by explicitly prohibiting any feature that could transform documentation into an investment or governance instrument.

This ensures that ACPs cannot—by design or misuse—acquire characteristics associated with securities, investment contracts, or monetary instruments.

Function of This Report

This Committee Report shall serve as the *legislative history anchor* for:

- federal judicial interpretation,
- agency rulemaking by Treasury, CFTC, SEC, and OCC,
- administrative enforcement actions, and
- state-level adoption and harmonization with UCC frameworks.

Courts and agencies shall interpret ACPs consistent with the intent expressed herein:

a documentation standard, not an investment class;
a definitional amendment, not a regulatory expansion;
a modernization of form, not a transformation of substance.

§VIII.E.9. Statutory Text for ACP Recognition

For Insertion Into the CLARITY Act of 2025

As Title IV – Autonomous Commodity Primitive Amendments

SECTION 1. SHORT TITLE.

This title may be cited as the “Autonomous Commodity Primitive Recognition Amendment of 2025” or the “ACPR Amendment.”

SECTION 2. DEFINITIONS.

(a) Autonomous Commodity Primitive (ACP).

For purposes of this Act and all amendments to the Commodity Exchange Act, the Securities Act of 1933, the Securities Exchange Act of 1934, and the Uniform Commercial Code:

The term “Autonomous Commodity Primitive” means a digitally recorded document of title that meets all of the following requirements:

1. Commodity Documentation Function.

The ACP shall identify, evidence, or memorialize ownership, custody, bailment, or beneficial interest in a physical, agricultural, mineral, energy, or other enumerated commodity recognized under 7 U.S.C. §1a(9).

2. Non-Discretionary Construction.

The ACP shall exist solely as a non-managerial, non-discretionary documentary record, and shall not contain, embed, or permit:

- governance rights;
- upgrade authority;
- discretionary parameters;
- financial return, staking, yield, or revenue-sharing features; or
- treasury, voting, or managerial control mechanisms.

3. Electronic Embodiment Standard.

The ACP shall be embodied on a cryptographically secured ledger exclusively for the purposes of:

- evidencing the existence, quantity, grade, or location of the underlying commodity;
- transferring title or beneficial interest;

- verifying custody, provenance, or reserve status;
- supporting auditability under 31 U.S.C. §5311 et seq.; or
- satisfying evidentiary or recordkeeping standards under UCC Article 7.

4. Absence of Investment Characteristics.

The ACP shall **not**:

- generate an expectation of profit derived from managerial, promotional, entrepreneurial, or technological efforts of an identifiable person, consistent with SEC v. W.J. Howey Co.;
- function as an investment contract, note, bond, or security;
- serve as a vehicle for capital formation, fundraising, or speculative issuance.

5. Value Derivation Constraint.

The ACP shall derive all economic value solely and exclusively from the underlying commodity, and not from:

- issuer conduct;
- managerial updates to software;
- promotional activity; or
- discretionary manipulation of supply, demand, or functionality.

SECTION 3. CLASSIFICATION OF ACPs UNDER THE COMMODITY EXCHANGE ACT.

(a) ACPs as Commodity-Documentation Instruments.

An ACP shall be classified as a commodity-documentation instrument, analogous to a warehouse receipt or bill of lading under UCC Article 7, and shall not be deemed a commodity within the meaning of 7 U.S.C. §1a(9).

(b) Commodity Status of the Underlying.

Where an ACP documents a commodity recognized under 7 U.S.C. §1a(9), the underlying commodity retains its statutory status, irrespective of the use of ACPs for title transfer, reserve attestation, or custody verification.

(c) Exclusion from “Security” or “Investment Contract.”

An ACP **shall not** be treated as:

- a “security,”
- an “investment contract,”
- a “certificate of interest,”
- a “note,” or
- any instrument regulated under the Securities Act of 1933 or the Securities Exchange Act of 1934,

provided that all of the following remain true:

1. The ACP includes *no managerial or discretionary authority*.
2. The ACP conveys *no expectation of profit* from the efforts of others.
3. The ACP is *not used* for capital formation or investment solicitation.
4. The ACP remains *functionally limited* to documenting a commodity interest.

SECTION 4. TREATMENT OF ACPs UNDER FEDERAL RESERVE AND TREASURY AUTHORITIES.

(a) Reserve Recognition.

The Secretary of the Treasury may recognize ACPs as qualified documentary evidence of commodity reserves for purposes of:

- 31 U.S.C. §5112 (monetary composition and reserve backing);
- 31 U.S.C. §5302 (Exchange Stabilization Fund operations);
- 12 U.S.C. §391 (custody of federal reserve assets); and
- any successor or related statutes governing reserve verification, collateralization, or custody of federally held commodities.

(b) Auditability and Transparency.

An ACP shall qualify as a ledger-verified audit instrument for:

- reserve attestation;

- BSA/AML compliance;
- provenance verification;
- authenticity and chain-of-custody obligations pursuant to 31 U.S.C. §5311 et seq.

(c) Prohibition on Monetary Substitution.

Nothing in this Act shall be construed to authorize ACPs as:

- legal tender,
- currency,
- a medium of exchange, or
- any monetary instrument under 31 U.S.C. §5103.

SECTION 5. TREATMENT OF ACPs UNDER UCC ARTICLE 7.

(a) Harmonization With UCC Article 7.

An ACP shall constitute:

1. a document of title under UCC §7-102, or
2. an electronic document of title under UCC §7-105,

provided that the ACP satisfies evidentiary, transfer, and control requirements equivalent to those applicable to warehouse receipts, bills of lading, and other custodial instruments.

(b) Negotiability and Transferability.

An ACP shall be deemed:

- negotiable where it satisfies UCC §7-104, and
- transferable under UCC §7-501,

including electronic negotiation under UCC §7-106.

SECTION 6. LIMITATIONS AND SAFEGUARDS.

(a) Prohibition on Managerial Features.

Any ACP that introduces:

- governance functions,
- upgrade authority,
- managerial discretion, or
- financial return mechanisms

shall immediately lose ACP status and shall be subject to classification under existing federal securities or derivatives statutes.

(b) Anti-Fraud Provisions.

All ACP activity remains fully subject to:

- 7 U.S.C. §9(1) (CFTC anti-manipulation),
- 15 U.S.C. §78j(b) (SEC anti-fraud),
- CFTC and SEC antifraud enforcement authority, and
- 18 U.S.C. §§1343, 1348 (wire and commodities fraud).

(c) AML/BSA Requirements.

ACP transfers shall comply with applicable requirements under:

- 31 U.S.C. §5311 et seq.,
- the Bank Secrecy Act,
- customer due diligence,
- recordkeeping, and
- suspicious activity reporting obligations.

SECTION 7. RULEMAKING AUTHORITY.

The Secretary of the Treasury, in consultation with the Commodity Futures Trading Commission and the Securities and Exchange Commission, shall issue technical and interpretive regulations to:

1. define ACP issuance, verification, and evidentiary standards;
2. coordinate ACP treatment across federal agencies;
3. prevent misuse or misclassification of ACPs;
4. ensure alignment with federal securities, commodities, banking, and monetary law; and
5. facilitate harmonization with UCC Article 7 and state-level commercial law.

SECTION 8. CONSTITUTIONAL COMPLIANCE.

Nothing in this title may be construed to:

1. alter Congress's constitutional authority over money and commerce under Article I;
2. delegate sovereign monetary power to private actors or foreign entities;
3. modify the statutory boundary between commodities and securities; or
4. authorize any instrument that functions as money, currency, or legal tender.

Footnote

Superscript citation numbering is intentionally omitted from the statutory text of the ACP Recognition Amendment. This is consistent with congressional drafting practice, which prohibits academic citations, case references, or doctrinal footnotes within enacted statutory language.¹ Legislative text must remain self-executing, self-contained, and judicially interpretable without reference to external authorities. The doctrinal and constitutional foundations supporting this language—including the Commodity Exchange Act, UCC Article 7 jurisprudence, federal monetary statutes, and the Howey/Forman/Reves framework—are fully addressed in the accompanying Committee Report and Treasury–OCC Joint Commentary. Those materials serve as the authoritative interpretive record, while the statutory text remains citation-free in accordance with the *House Legislative Counsel's Manual on Drafting Style* (Dec. 2022), the *Senate Legal Drafting Manual*, and the *GAO Federal Legislative Drafting Handbook*.

Sources (for internal/reference use):

- House Legislative Counsel's Manual on Drafting Style, December 2022 (HLC 117–2) – available at https://legcounsel.house.gov/sites/evo-subsites/legcounsel-evo.house.gov/files/documents/ManualDraftStyle_2022.pdf
- CRS Report R46484 (Senate legislative drafting manual summary) – available at <https://www.congress.gov/crs-product/R46484>

- GAO Federal Legislative Drafting Handbook (2019) – available at <https://www.gao.gov/assets/gao-19-55g.pdf>

§VIII.E.9.1. Treasury–OCC Joint Commentary

The following commentary has been drafted for the Department of the Treasury and the Office of the Comptroller of the Currency (OCC) to expedite issuance of a joint interpretive statement clarifying the regulatory treatment, statutory meaning, and supervisory expectations applicable to Autonomous Commodity Primitives (ACPs) as recognized under the amended CLARITY Act. This commentary is intended to harmonize ACP implementation with existing federal law, supervisory doctrine, and the longstanding structure of U.S. monetary authority. It is therefore respectfully submitted for review by the Department of the Treasury and the Office of the Comptroller of the Currency (OCC).

1. Monetary Authority and Sovereign Functions

Treasury and the OCC confirm that ACPs do not confer, imply, or expand any authority relating to the issuance of money, legal tender, or monetary instruments. The ACP designation is limited to documentation of title to a commodity and carries no monetary or quasi-monetary functionality.²⁵⁷

The Federal Reserve retains exclusive statutory authority under 12 U.S.C. §§ 411–418 and 31 U.S.C. §§ 5101–5112 over the issuance of U.S. currency and reserve instruments.²⁵⁸ No provision of the ACP amendment alters or expands this constitutional and statutory allocation.

§VIII.E.9.2. Alignment With Existing Treasury and OCC Treatment of Warehouse Receipts and Reserve Documentation

Treasury and OCC interpret ACPs as electronic analogues to traditional warehouse receipts, bills of lading, and other documents of title recognized under UCC Article 7.²⁵⁹ This interpretation is consistent with:

- Treasury’s books-and-records requirements for reserve verification under 31 U.S.C. §5311 and §5318,²⁶⁰
- OCC’s long-standing supervisory treatment of warehouse receipts and title records as permissible custodial assets for national banks and federal savings associations under 12 C.F.R. §7.5000,²⁶¹
- The Exchange Stabilization Fund’s recordkeeping requirements for commodity-backed reserves under 31 U.S.C. §5302.²⁶²

Therefore, an ACP is recognized as documentary evidence, not a financial instrument, investment vehicle, or monetary instrument.

§VIII.E.9.3. ACPs and Asset-Backed Digital Currencies (ABDCs)

ACPs may serve as the documentary layer underlying Treasury-recognized forms of Asset-Backed Digital Currencies (ABDCs), provided that:

1. ACPs strictly document commodity reserves;²⁶³
2. ACPs do not encode managerial discretion, governance rights, or upgrade authority;²⁶⁴
3. The ABDC architecture ensures that monetary issuance, redemption, and convertibility remain under the exclusive authority of the federal government.²⁶⁵

This interpretive position ensures that ACPs support but do not supplant the statutory framework governing monetary sovereignty.

§VIII.E.9.4. No Expansion of Private-Sector Monetary Authority

Treasury and OCC reiterate that ACPs do not authorize the private sector to:

- create monetary substitutes;
- issue claims resembling stablecoins or legal tender;
- conduct fractional-reserve issuance of commodity-linked claims.²⁶⁶

Private entities may utilize ACPs solely as commodity-documentation instruments within the meaning of UCC Article 7 and 7 U.S.C. §1a(9).²⁶⁷

Any ACP that functions as a monetary surrogate falls outside statutory safe harbors and may give rise to enforcement under:

- the Securities Act of 1933,
- the Commodity Exchange Act,
- the Bank Holding Company Act, and
- the federal anti-fraud statutes.²⁶⁸

§VIII.E.9.5. Supervisory Expectations for National Banks, Trust Companies, and Digital Custodians

Treasury and OCC provide the following supervisory expectations:

(a) Custody of ACPs

Banks and trust companies may custody ACPs provided that:

- the ACP qualifies as a document of title under UCC Article 7;
- the institution maintains robust cyber-security and ledger-security controls;
- no ACP custody activity implies or creates exposure to digital governance rights or managerial discretion.²⁶⁹

(b) Transfer and Settlement Frameworks

Institutions must adhere to:

- OFAC sanction-screening protocols;²⁷⁰
- BSA/AML obligations, including CDD and suspicious-activity monitoring;²⁷¹
- OCC Bulletin 2013-29 (third-party risk management) for any ledger-based vendor relationships.²⁷²

(c) Capital and Liquidity Treatment

ACPs held in custody are not treated as risk-weighted assets; ACPs held on-balance-sheet are treated in accordance with existing rules governing custodial commodities.²⁷³

No institution may treat ACPs as financial instruments for capital-formation, marketing, or fundraising purposes.²⁷⁴

§VIII.E.9.6. Fraud Prevention, Auditability, and Traceability

Treasury and the OCC interpret ACPs as instruments that enhance traceability and fraud-prevention capacity within federal supply chains.²⁷⁵

ACPs must support:

- end-to-end provenance integrity,
- real-time reserve verification,
- audit trails compatible with Treasury's Financial Crimes Enforcement Network (FinCEN) requirements.²⁷⁶

- adherence to 31 U.S.C. §5311 et seq. (BSA).²⁷⁷

This interpretive posture situates ACPs as a modern statutory successor to paper commodity documentation, not as a financial innovation altering classification boundaries.

§VIII.E.9.7. Compatibility With Federal Law and Constitutional Structure

Treasury and OCC confirm that ACP usage complies with:

- the Constitution’s allocation of monetary power (Art. I, §§ 8–10),²⁷⁸
- existing federal securities law,
- the Commodity Exchange Act’s commodity-definition boundaries,
- UCC Article 7 documentation doctrines, and
- federal anti-fraud and anti-manipulation laws (7 U.S.C. §9(1); 15 U.S.C. §78j(b)).²⁷⁹

This interpretive framework ensures that ACPs do not blur or collapse statutory categories—a requirement reaffirmed in *Howey*, *Reves*, *Forman*, and recent textualist decisions narrowing administrative flexibility.²⁸⁰

§VIII.E.10. Plain-Language Policymaker Summary

Purpose of This Summary

This section explains—in clear, everyday language—what the Autonomous Commodity Primitive (ACP) amendment does, and just as importantly, what it *does not* do. It is designed so that any Member of Congress, legislative staffer, journalist, constituent, or state-level policymaker can accurately describe the amendment without technical background.

What ACPs Are

1. ACPs are digital documentation—nothing more.

An ACP is simply a modern, cryptographically recorded version of a warehouse receipt, bill of lading, or commodity certificate. It documents ownership, custody, and the existence of a physical commodity (such as grain, metals, livestock, oil, or other materials Congress recognizes under the Commodity Exchange Act).

2. ACPs improve accuracy and transparency.

They allow commodity information to be verified in real time on a secure, auditable ledger. This helps prevent double-counting of assets, forged documents, and gaps in audit trails.

3. ACPs help law enforcement and regulators.

By serving as verifiable digital documentation, ACPs make it easier for the Treasury Department,

CFTC, SEC, IRS, and law enforcement agencies to track commodity provenance, detect fraud, and monitor supply chains.

What ACPs Are Not

4. ACPs are not tokens, cryptocurrencies, or investments.

They do not represent a new type of digital asset. They do not fluctuate in value based on speculation, and they do not introduce new financial products into the marketplace.

5. ACPs do not create or imply any form of currency.

They do not operate as money, legal tender, or a medium of exchange. They do not alter monetary policy, Federal Reserve authority, or Treasury's existing statutory powers.

6. ACPs do not confer voting rights, governance rights, or profit expectations.

They do not give holders control over software, protocols, or any underlying digital systems. They are documentation tools—not corporate rights, securities, or digital governance instruments.

Why ACPs Are Needed Now

7. ACPs modernize U.S. commodity markets without expanding risk.

As global markets transition to digital infrastructure, ACPs ensure that the United States remains the world leader in trustworthy commodity documentation, reducing fraud and enhancing the efficiency of interstate and international commerce.

8. ACPs strengthen U.S. economic security.

By improving the transparency of commodity reserves, ACPs assist Treasury, U.S. regulatory agencies, and market participants in safeguarding the integrity of commodity markets that underpin major sectors of the U.S. economy.

9. ACPs support future financial innovation safely.

While ACPs do not create new monetary instruments, they provide the documentation layer necessary for future reserve-backed digital instruments—should Congress authorize them—ensuring such systems are grounded in verifiable assets rather than speculative constructs.

Bottom Line for Policymakers

ACPs modernize how commodities are documented. They do not change what a commodity is. They do not create new currencies. They do not create new financial instruments. They reduce fraud, increase transparency, and support U.S. competitiveness.

This provision gives the United States modern infrastructure to track and verify real-world assets—without expanding federal power, altering financial regulation, or creating new risks for consumers or investors.

Doctrinal Clarification Footnote

As a matter of longstanding U.S. commercial law, the ability to transfer, convey, or barter a commodity using a document of title does not transform the instrument into a currency, security, or investment product. This principle has governed warehouse receipts, bills of lading, metals certificates, livestock documents, and other commodity-evidence instruments for over a century under UCC Article 7, CEA §1a(9), and federal judicial interpretation. In this framework, an Autonomous Commodity Primitive (ACP) functions purely as a digital document of title, not as a financial instrument. Its role is evidentiary: *it verifies what the commodity is, where it is, and who owns it.* Use of an ACP to facilitate commercial exchange—including barter—does not convert the ACP into money or a financial product, because the source of value remains the underlying commodity itself, not managerial activity, speculative expectation, or issuer discretion. This distinction is foundational to Treasury, OCC, CFTC, and SEC doctrine. It preserves the constitutional separation between commodities, securities, and monetary instruments, and ensures that ACPs modernize commercial documentation without expanding private monetary authority or triggering securities regulation. In effect, ACPs operate as the digital successor to traditional commodity documentation systems, enabling secure transfer and verification while remaining firmly within the boundaries of existing U.S. law.

§IV. The Functional Equivalence Doctrine — Origins, Use, and Constitutional Defects

The so-called Functional Equivalence Doctrine emerged as an interpretive tool used by federal regulators—notably the CFTC—to classify novel economic instruments whose market behavior resembled that of enumerated commodities or futures contracts. Although the doctrine retains limited application in determining whether certain products fall within the ambit of CEA §2(a)(1), its scope has been substantially constrained by modern statutory fidelity, constitutional limits on agency power, and judicial skepticism toward regulatory expansion through analogy.

§IV.A. Original Regulatory Use: Functional Behavior as a Proxy for Commodity Classification

The Functional Equivalence Doctrine arose primarily in the late 1970s and early 1980s as futures markets began expanding beyond agricultural goods into financial products. Regulators observed that certain non-traditional instruments—such as interest-rate futures, FX futures, and certain swaps—behaved in markets identically to traditional futures contracts. In this context, functional equivalence served a narrow purpose:

1. Functional Equivalence as a Market-Behavior Test

Regulators used functional equivalence to determine whether novel instruments should fall under the CEA because:

- they were traded in futures-like formats,
- they exhibited standardized contract characteristics, and
- they relied on exchange-based price discovery similar to enumerated commodities.²⁸¹

This early usage was permissive but bounded: *functional resemblance sufficed only where the underlying instrument exhibited no managerial discretion and no issuer-determined economic value*.²⁸²

2. Classical Limitation: No Managerial Systems Could Be Treated as Commodities

From inception, the doctrine explicitly excluded managerially governed systems, because such instruments contradicted the definitional core of CEA §1a(9)—which requires commodities to be non-managerial, non-discretionary economic objects.²⁸³

Thus, functional equivalence was designed to extend CFTC authority, not to override statutory limitations on what qualifies as a commodity.

§IV.B. Misapplied Contemporary Usage: “Software = Commodity” as a Category Error

In contemporary digital-asset discourse, some advocates assert that software tokens should be classified as commodities solely because they exist in digital form or because they possess exchange-based price discovery.

This view misapplies functional equivalence in three critical respects:

1. Digital Form Does Not Control Statutory Classification

No statute, case, or administrative rule holds that “digitally embodied objects” are commodities per se. Federal courts have repeatedly rejected form-based reasoning and reiterated that managerial structure, not technological wrapper, determines classification.²⁸⁴

2. Software Systems Encode Managerial Discretion

Where digital objects involve:

- upgradeable smart contracts,
- governance voting,
- treasuries, foundations, or
- founder communications affecting value,
the object becomes economically *managerial*, not commodity-like.²⁸⁵

3. Federal Courts Increasingly Reject Form-Over-Function

Recent federal jurisprudence demonstrates a consistent trend: courts do not allow functional resemblance to override statutory limits. See *Slack v. Pirani*,²⁸⁶ *Reves*,²⁸⁷ and *Terraform*.²⁸⁸

Functional equivalence fails where managerial discretion shapes supply, price, or market expectations.

Thus, the assertion “software = commodity” is categorically incompatible with statutory text, agency authority, and constitutional law.

§IV.C. Constitutional Defects in Overextended Functional Equivalence

Attempts to use functional equivalence to classify managerial digital systems as commodities violate three constitutional doctrines.

1. Federalism Limits: Commodity Classification Cannot Bypass State Property Law

The Commodity Exchange Act does not displace underlying state property, contract, and commercial law governing ownership, transfer, and bailment.²⁸⁹

Treating managerial digital systems as commodities would necessarily preempt state law in areas Congress did not authorize federal occupation.

This violates the presumption against preemption and the constitutional ordering of commercial authority.²⁹⁰

2. The Non-Delegation Doctrine: Agencies Cannot Expand Jurisdiction Because an Asset is “Digital”

Using functional equivalence to classify digital assets as commodities would constitute an impermissible expansion of CFTC authority:

- The Constitution prohibits agencies from self-expanding their jurisdiction based on perceived market need.²⁹¹
- *West Virginia v. EPA*²⁹² reaffirms that major questions of economic significance require clear congressional authorization.
- No statute grants agencies authority to treat software-governed, managerial systems as commodities.

Any attempt to classify a managerial protocol as a commodity would therefore violate the non-delegation doctrine by transferring definitional power from Congress to the agency.

3. Separation of Powers: Functional Equivalence Cannot Outsource Statutory Definitions to Private Actors

The Constitution prohibits delegating federal economic power to private entities.²⁹³
Treating managerially governed protocols as commodities would:

- allow protocol developers to determine the scope of CFTC jurisdiction;
- allow private software architects to define “commodity status” through design choices;
- effectively outsource congressional authority to private actors.

This violates the rule articulated in *Carter v. Carter Coal*, which held that private entities may not exercise regulatory power over markets.²⁹⁴

Thus, where a protocol contains governance rights, upgrade authority, or managerial influence, treating it as a commodity would produce an unconstitutional delegation.

§IV.D. Doctrinal Conclusion

The Functional Equivalence Doctrine cannot classify digital assets as commodities where managerial discretion is present. This is true:

- as a matter of statutory interpretation (CEA §1a(9));
- as a matter of federal jurisprudence (Howey, Reves, Slack); and
- as a matter of constitutional law (federalism, non-delegation, separation of powers).

Functional equivalence remains valid only within its original limited purpose: identifying *non-managerial economic objects* whose market behavior aligns with traditional commodity characteristics.

Digital assets do *not* qualify where they function as *issuer-managed, upgradeable, governed, or treasury-directed* systems.

§IV.E. Policy Interpretation Block — Understanding the Limits of the Functional Equivalence Doctrine

For policymakers, the key takeaway is straightforward:

Functional equivalence is not a legal basis for treating managerial digital assets as commodities.

Its original purpose was narrow: to bring *non-managerial, non-discretionary, market-standardized* financial instruments under CFTC oversight when they behaved like futures contracts. It was never intended to classify software ecosystems, upgradeable networks, token-issuing foundations, or treasury-controlled protocols as commodities.

In modern digital-asset debates, functional equivalence is often invoked incorrectly to argue that:

- “If a token trades on an exchange, it must be a commodity,” or

- “Because digital assets have market prices, they resemble commodities.”

These arguments misunderstand both the statute and the constitutional framework.

Congress defined commodities as non-managerial economic objects.

Commodities—whether wheat, metals, or financial futures—derive value from market forces, not from managerial decisions, software upgrades, or insider communications.

Where a digital asset:

- can be upgraded by a foundation, core team, or DAO;
- has a treasury controlled by identifiable parties;
- appreciates or depreciates based on managerial communications; or
- depends on roadmap execution by insiders;

it cannot be a commodity under *any* reading of the Commodity Exchange Act.

Bottom line for policymakers:

Functional equivalence cannot override statutory text, constitutional limits, or the bright-line distinction between non-managerial commodities and managerial investment schemes.

This is not a policy preference—it is a structural legal reality.

§IV.F. Argument / Counter-Argument Shield — Functional Equivalence and Commodity Classification

This shield equips policymakers with precise responses to the most common misunderstandings.

Argument 1

“Digital assets function like commodities because they trade on exchanges and have prices.”

Counter-Argument

Exchange trading and price discovery do not define a commodity.

Under CEA §1a(9), a commodity must be a *non-managerial object* whose value derives from supply and demand—not from insiders, upgrades, or managerial discretion.

If value is influenced by developer decisions, governance votes, or promotional activity, the asset is a *managed financial instrument*, not a commodity.

Argument 2

“Functional equivalence allows agencies to classify digital tokens as commodities even if they have managers or governance.”

Counter-Argument

Functional equivalence has *never* permitted agencies to override statutory requirements.

Under the *non-delegation doctrine* and *major questions doctrine*, agencies cannot expand jurisdiction merely because a product is new or digital.

If an asset involves managerial authority, governance, or upgrade control, agencies cannot classify it as a commodity, regardless of functional similarities.

Argument 3

“If a token is used in a decentralized network, it automatically resembles a commodity.”

Counter-Argument

Decentralization must be *verifiable*, not asserted.

Use in a network does not eliminate managerial control.

If insiders can influence supply, protocol decisions, or market expectations, the asset is not autonomous and cannot meet the commodity standard.

Argument 4

“Functional equivalence allows courts to treat software systems as commodities.”

Counter-Argument

Federal courts increasingly reject form-over-function analogies.

A managerially governed protocol cannot be a commodity because its value depends on *issuer conduct, governance rights, and software control*.

This violates *Howey*, *Reves*, *Forman*, and the CEA’s non-managerial object requirement.

Argument 5

“Because software is intangible, it qualifies as a commodity under the expanded commodity definition.”

Counter-Argument

Intangibility is irrelevant.

What matters is *managerial discretion*.

Financial futures are intangible but non-managerial—digital assets with governance structures are not.

Argument 6

“Classifying tokens as commodities will simplify regulation.”

Counter-Argument (Correct):

Misclassification would destabilize markets, create litigation risk, and invite constitutional challenge.

Congressional and judicial precedent require respecting the boundary between commodities (non-managerial objects) and securities/investment contracts (managerial systems).

Argument 7

“Functional equivalence evolved to cover digital assets.”

Counter-Argument (Correct):

No statute, rule, or case supports this claim.

Functional equivalence was never meant to classify *managerial protocols, upgradeable software, or treasury-controlled networks* as commodities.

Any such expansion would violate:

- the separation of powers,
- federalism,
- the non-delegation doctrine, and
- the text of CEA §1a(9).

Argument 8

“If Congress does nothing, courts will eventually treat tokens as commodities anyway.”

Counter-Argument

Courts are moving in the opposite direction.

Recent decisions (e.g., *Slack, Terraform, Ripple*) reinforce:

the central legal question is *managerial influence*, not technological form.

Without congressional clarity, courts will continue to classify most digital assets as *investment contracts*, not commodities.

Argument 9

“Commodities can have active management—so tokens with foundations still qualify.”

Counter-Argument

No.

Commodities have *market management*, not *issuer management*.

A soybean farmer does not control global soybean prices.

A protocol team can—and does—control parameters that influence token economics.

Argument 10

“Because blockchains are decentralized, their tokens must be commodities.”

Counter-Argument

Blockchains may be decentralized, but tokens often are not.

Most digital assets have:

- treasury control,
- upgrade authority,
- governance tokens,
- core-developer influence,
- managerial communications that affect price.

These features categorically disqualify them from commodity treatment.

Conclusion of Shield

This Argument-Counter-Argument Shield fortifies policymakers against mischaracterization in:

- hearings,
- legislative debates,
- media interviews,
- industry lobbying, and
- public-facing communications.

It ensures every objection can be answered with constitutional, statutory, and doctrinal clarity.

§V. Judicial Construction Trajectory — From “Economic Realities” to Textualist Scrutiny

The judicial treatment of commodities, securities, and novel financial instruments has undergone a marked transformation over the past eight decades. Whereas earlier courts relied heavily on the economic-realities doctrine, modern Supreme Court jurisprudence has shifted toward textualist constraint, narrowing judicial discretion and compelling strict fidelity to statutory definitions. This evolution is central to DAC because digital assets, unlike traditional commodities, often exhibit managerial discretion, upgrade authority, and issuer-driven economic value—all qualities that textualist courts will treat as disqualifying for commodity classification.

§V.A. Early Era: The Economic-Realities Doctrine

From the mid-20th century through the early 2000s, federal courts frequently interpreted financial instruments through the lens of substance over form, focusing on economic behavior rather than formal labels.

1. Howey’s Functional Inquiry

SEC v. W.J. Howey Co. required courts to determine whether purchasers were led to expect profits from the efforts of others, emphasizing economic substance over formal structure.³⁰¹

2. Reves’ Family Resemblance Test

In *Reves v. Ernst & Young*, the Court applied a functional analysis that examined how an instrument operates in the marketplace and whether it resembles categories of securities previously recognized.³⁰²

3. Administrative Law Context

In this era, courts were also more deferential to agency interpretations under *Chevron*, increasing the role of economic-realities analysis.³⁰³

§V.B. Modern Era: Textualist Constraint and Post-Chevron Independence

Beginning in the 2010s—and accelerating sharply since 2020—SCOTUS shifted its interpretive posture. The Court increasingly requires:

- strict adherence to statutory text,
- skepticism toward implied doctrines,
- narrow readings of agency authority, and
- strong separation-of-powers grounding.

1. The Rise of Textualism

Cases such as *Gustafson*, *West Virginia v. EPA*, *Digital Realty Trust*, and others reinforce that courts will no longer rely on broad economic-realities reasoning where statutory text is explicit.³⁰⁴

2. Chevron’s Collapse

While not formally overturned until 2024, Chevron deference had already been narrowed substantially. Post-Chevron, courts reclaim interpretive primacy and are less willing to accept agency characterizations of digital assets that conflict with statutory text.³⁰⁵

§V.C. Slack v. Pirani (2023): Implications for Digital Asset Issuers

In *Slack v. Pirani*, the Supreme Court held that liability under federal securities law requires a precise transactional nexus between the instrument sold and the statutory text governing that specific issuance.³⁰⁶

Consequences for Digital Assets

Slack clarifies that:

- 1. Issuance pathways must be auditable.**
Digital-asset issuers cannot rely on opacity, fungibility, or anonymity to avoid statutory obligations.³⁰⁷
- 2. Protocol claims cannot obscure provenance.**
Saying “the protocol issued it” does not eliminate issuer responsibility if identifiable humans exercised discretion.³⁰⁸
- 3. Textual classification governs.**
If the asset fits the statutory definition of a security (Howey or Reves), Slack prevents issuers from evading classification by invoking decentralization rhetoric.³⁰⁹

§V.D. Judicial Implications for Digital Assets

Modern courts will examine *five categories of evidence* when determining whether a digital asset qualifies as a security or commodity:

1. Governance Structures

Whether identifiable persons or groups exercise influence over protocol decisions, repositories, or treasuries.³¹⁰

2. Upgrade Authority

If insiders can approve or implement upgrades, forks, or parameter changes, the asset is *managerially controlled*, disqualifying it as a commodity.³¹¹

3. Managerial Discretion Encoded in Protocols

Courts now recognize software architecture as *functional governance*, triggering securities analysis under *Howey* and *Reves*.³¹²

4. Issuance Control

Treasury authority, supply adjustments, and token allocation frameworks constitute managerial conduct.³¹³

5. Economic Incentives

If economic value is influenced by insider communications or roadmap execution, courts treat the instrument as a managed financial product rather than a commodity.³¹⁴

§V.E. Doctrinal Result

Under modern textualist interpretation:

“Investment intent” cannot be overridden by claims of “protocol function.”³¹⁵

Courts require *verifiable decentralization*, not *asserted decentralization*.

Thus, judicial construction now aligns with DAC’s core principle:

Digital assets are commodities only when they are non-managerial, non-discretionary, and economically autonomous.

§V.F. Policy Interpretation Block

How Policymakers Should Interpret Modern Judicial Trends

1. **Courts now prioritize statutory text over economic analogy.**
Policymakers cannot assume that “tokens behave like commodities” will carry legal weight.
2. **Digital assets with upgradeable code or treasury control will be treated as managed instruments.**
Slack makes it clear: provenance and managerial influence matter more than form.

3. **Claimed decentralization is irrelevant unless it is verifiable and irreversible.**
If insiders can intervene, modify, or influence economic expectations, courts will treat the asset as a security.
4. **DAC aligns Congress with the Supreme Court.**
DAC's commodity definition (non-managerial, non-discretionary, autonomous infrastructure object) mirrors what modern courts already require.
5. **Policymakers defending DAC can accurately state:**
"DAC does not change the law—it restates and clarifies what the Supreme Court already requires."

§V.G. Argument / Counter-Argument Shield

Argument 1

"Slack only applies to traditional securities issuance, not tokens."

Counter-Argument

Slack concerns *transactional nexus* and *provenance*, both of which map directly onto digital-asset issuance and upgrade authority.³¹⁶

Courts will apply Slack to tokens with any identifiable issuance pathway.

Argument 2

"If developers call it a commodity, courts will defer."

Counter-Argument:

Textualism forbids deference to labels.

Courts apply CEA §1a(9) strictly: no managerial discretion = commodity; managerial discretion = security.³¹⁷

Argument 3

"Economic realities let us argue a token is decentralized."

Counter-Argument

Economic-realities analysis is no longer dominant.

Post-Slack and post-Chevron, courts enforce the statutory text—not decentralized rhetoric.³¹⁸

Argument 4

“Because trading occurs on commodity exchanges, tokens must be commodities.”

Counter-Argument

Market behavior cannot override statutory definitions.

Trading does not convert a managerial instrument into a commodity.³¹⁹

Argument 5

“Protocol governance is not management.”

Counter-Argument

Modern courts explicitly treat *software governance, upgrade authority, and treasury control* as managerial discretion.³²⁰

This triggers securities regulation.

Argument 6

“If the protocol is decentralized, the token is decentralized.”

Counter-Argument

DAC and SCOTUS both reject this.

Governance decentralization ≠ economic decentralization.

If insiders influence price, supply, or expectations, the asset is not a commodity.³²¹

§V.H. Policymaker Interpretation — Plain English Translation

This section distills the statutory and judicial principles governing commodity classification into a form intended for Members of Congress, legislative counsel, committee staff, and oversight bodies. It clarifies what the preceding doctrine means in practice, why courts will enforce these distinctions, and how policymakers can confidently articulate the law to constituents and agency officials.

1. A Commodity Is Only a Commodity If No One Controls It

Under the Commodity Exchange Act (CEA), an object may be treated as a commodity *only when no person or identifiable group exercises managerial discretion or economic influence over it*.³²²

This requirement is embedded in:

- CEA §1a(9) (commodity must be a non-discretionary economic object),³²³
- Howey (no expectation of profits from the efforts of others),³²⁴

- Reves (managerial function places an asset in the “investment” category),³²⁵ and
- Forman (economic reality driven by managerial power indicates a security).³²⁶

Therefore, if a founder, core development team, foundation, or DAO can influence price, supply, upgrades, or public expectations, the asset cannot legally qualify as a commodity.

2. “Decentralization” Is Not a Label—It Must Be Proved

Policymakers should understand that *calling an asset “decentralized” does not make it decentralized*. Courts require *verifiable decentralization*, not *asserted decentralization*.

This is consistent with:

- SCOTUS’s move toward strict textualism (*Slack v. Pirani*),³²⁷
- The narrowing of implied doctrines such as “economic realities,”³²⁸
- The collapse of Chevron deference and the return of judicial primacy in statutory interpretation.³²⁹

Congressional intent matters—but *statutory text controls*. Courts will ask one question above all:

Is there human managerial influence?

If yes → *the asset is not a commodity*.

3. Software Alone Is Not a Commodity

The functional equivalence argument—“software behaves like a commodity”—has no statutory basis and conflicts with judicial precedent.³³⁰

Under modern doctrine:

- *Software is not a commodity* unless it functions as an autonomous infrastructure object.³³¹
- *If human discretion is required* for upgrades, treasury operations, supply decisions, governance changes, or economic signaling, the object becomes a managed instrument.³³²
- *Managed instruments are securities or contracts—not commodities*. (Howey; Reves; Forman; Slack).³³³

This makes the legal treatment of digital assets *behavior-driven*, not form-driven.

4. Courts Have Shifted Toward Restrictive, Textual Interpretation

Policymakers must recognize the judicial shift:

Earlier Courts:

Emphasized functional behavior (economic realities).

Modern SCOTUS:

Insists on:

- strict adherence to statutory text,³³⁴
- narrow agency authority,³³⁵
- rejection of form-over-substance labels,³³⁶
- precise transactional analysis (*Slack*),³³⁷
- clear limits on delegated financial authority (*West Virginia v. EPA*).³³⁸

Under this approach, claims such as:

“The asset trades like a commodity”

or

“The asset is stored on a blockchain and therefore decentralized”

carry *no legal weight* unless decentralization is independently verified.

5. Policymakers Should Anchor Classification in Behavior, Not Branding

Congressional staff, regulators, and courts will ask:

Does identifiable managerial authority exist?

If yes, the asset is not a commodity—even if:

- it is called a commodity,
- it is marketed as decentralized,
- it trades on a commodities exchange,
- or it uses blockchain architecture.³³⁹

This is because *statutory definitions* in the CEA and the judicial tests in *Howey/Reves/Forman* control classification, not market rhetoric.

Plain English for Policymakers

A digital asset is a commodity only if:

- 1. No one controls it.**
- 2. No one upgrades it.**
- 3. No one manages it.**
- 4. No one issues it.**
- 5. No one can influence its economic value through speech or action.**
- 6. Its price depends solely on supply and demand—not managerial efforts.**

If any person or group (founder, foundation, DAO, developers, treasuries, validators, influencers) can influence value, governance, supply, or roadmap-based expectations, the object becomes a *managed financial instrument*, not a commodity.

This principle protects both:

- *Congressional authority* (preventing agencies from expanding jurisdiction), and
- *The Constitution’s separation of commodities, securities, and monetary instruments.*

DAC operates entirely within this judicial and statutory architecture.

§VI. Core Arguments Introduced in This Section

Introduction

This section provides a clear, doctrinally grounded narrative summary of the core arguments that guide the legal reasoning of the Doctrine of Anchored Decentralization (DAC). Because this portion is written specifically for Members of Congress, committee staff, and legislative counsel, it is deliberately presented without citations. The purpose is to give policymakers a precise, plain-language understanding of the constitutional principles and legal boundaries that govern how digital assets may—and may not—be classified under existing federal law. The detailed statutory and judicial support for these principles is fully developed in the preceding and subsequent sections; here, the objective is clarity, accessibility, and interpretive sufficiency for legislative decision-making.

1. Digital Protocols With Managerial Control Cannot Be Commodities

Under longstanding federal law, a commodity is an economic object whose value arises from market forces, not from managerial decisions, governance actions, or promotional influence. This principle has been consistent since the Commodity Exchange Act was enacted.

A digital asset that relies on identifiable individuals, foundations, developers, treasuries, or governance groups for:

- upgrades,
- security maintenance,
- economic signaling,
- supply adjustments,
- or promotional communications

cannot be treated as a commodity because it functions as a managed system, not as an autonomous object. Commodities are fundamentally non-managerial, and this requirement is structural—not discretionary.

The implication is straightforward:

If anyone controls it, updates it, signals about it, or governs it, the asset is not a commodity.

2. The Functional Equivalence Doctrine Has Been Misapplied in Digital Contexts

For years, some advocates have argued that digital tokens should be treated “like commodities” because they function in ways that resemble traditional tradable goods. This is known as the “Functional Equivalence Doctrine.”

However, functional equivalence was never intended to blur the line between non-managerial commodities and managerially-operated digital systems. It was originally used to determine whether certain financial instruments should fall under commodities regulation—not to redefine the nature of a commodity itself.

In the digital asset context, this doctrine is often misapplied to claim:

- “software equals commodity,”
- “protocol tokens equal commodity,”
- “blockchain assets equal commodity.”

Such claims ignore the fact that digital networks frequently embed *managerial authority*, decision-making power, and discretionary control—factors that are legally incompatible with commodity status.

DAC restores functional equivalence to its correct role: a tool for mapping market structure, *not* a mechanism for reclassifying managed systems as commodities.

3. SCOTUS’s Textualist Era Undermines Broad Administrative Interpretations

The Supreme Court has made clear that regulators cannot expand their own jurisdiction through broad interpretations of statutory terms. Digital assets are entering federal law during a period in which:

- regulatory deference is shrinking,
- statutory text governs outcomes,
- and agencies must remain within the limits Congress explicitly established.

This judicial shift has profound implications:

- Agencies cannot call a managed digital system a “commodity” merely because it behaves like one.
- Courts will evaluate the presence of governance, managerial influence, and economic discretion—not the labels used by promoters, issuers, or exchanges.
- If Congress did not authorize classification of managerially-operated systems as commodities, agencies may not stretch statutory language to do so.

For policymakers, the takeaway is clear:

The classification of digital assets must match the statutory text—not the preferences of market actors or the assumptions of regulators.

4. Commodities Must Be Non-Managerial by Definition — Digital Assets Rarely Meet This Threshold

The central theme of this section is simple but dispositive:

Commodities must be non-managerial.

A commodity’s defining characteristic is that its value is not tied to:

- leadership decisions,
- development roadmaps,

- insider governance,
- promotional activity,
- or discretionary upgrades.

Most digital assets—especially those with foundations, treasuries, development teams, governance tokens, or voting mechanisms—are structured around **ongoing managerial behavior**. That managerial behavior:

- moves markets,
- alters the system,
- creates expectations of profit,
- and establishes accountability structures that resemble corporate or organizational governance.

Such assets fall into the category of *managed instruments*, not commodities.

DAC’s purpose is not to punish innovation—it is to ensure that federal classifications remain faithful to the Constitution, the Commodity Exchange Act, and the securities laws.

In this doctrinal light, digital assets can be commodities only when they function as *autonomous infrastructure objects*, not as *issuer-operated systems*.

Summary for Policymakers

This section equips legislators with the four essential concepts needed to understand the remainder of DAC:

1. *Managerial control disqualifies an asset from being a commodity.*
2. *Functional equivalence cannot override statutory boundaries.*
3. *SCOTUS’s textualist era requires strict adherence to Congress’s definitions.*
4. *Most digital assets are managerially governed and therefore cannot be commodities.*

These principles restore the constitutional clarity Congress intended and ensure that digital-asset regulation remains within the lawful boundaries of the Commodity Exchange Act, the securities laws, and the separation of powers.

§VII. Arguments and Counter-Arguments

Introduction

This section is purposely delivered without citations or superscript numbering, because it is crafted as a communications-ready doctrinal explanation for Members of Congress, Committee Counsel, Congressional Research Service analysts, and credentialed journalists. Its purpose is straightforward: to anticipate the three most common misconceptions surrounding digital-asset classification and to provide clear, constitutionally faithful responses rooted in DAC’s core legal principles.

These responses equip policymakers to articulate the constitutional logic behind DAC and to rebut mischaracterizations in hearings, media interviews, and public discourse.

Argument 1

“Digital assets are like commodities because they are fungible and widely traded.”

Counter-Argument

Fungibility and high trading volume do **not** determine whether something is a commodity under U.S. law.

A commodity is defined by the absence of *managerial control*, not by its tradability. Wheat, oil, cattle, gold, and copper all possess the same structural characteristic: *no person or group controls their supply, roadmap, branding, governance, or economic trajectory*.

Digital assets, by contrast, are often shaped by:

- identifiable founders or foundations,
- upgrade committees or developer groups,
- governance token holders,
- protocol treasuries,
- coordinated promotional activity.

These forms of influence introduce *managerial discretion*, which disqualifies an asset from commodity treatment regardless of market liquidity.

DAC’s position is clear:

Wide trading does not erase managerial behavior. Commodities must be non-managerial, full stop.

Argument 2

“Software protocols are neutral tools; therefore, they qualify as commodities.”

Counter-Argument

Neutrality of technology is legally irrelevant if the system depends on *ongoing human governance*.

A software protocol cannot be treated as a commodity when:

- it requires periodic upgrades,
- it relies on privileged repository access,
- it is governed by DAO votes,
- it is promoted by identifiable teams,
- it has a foundation controlling treasury assets,
- or its economic trajectory depends on managerial communication.

In such cases, the protocol is not a neutral tool — it is a *managed enterprise wrapped in code*.

Federal law distinguishes between *objects* (commodities) and *managed systems* (investment instruments). A protocol that requires humans to operate it, maintain it, or direct it is not an object; it is an *organization*, and organizations are not commodities.

DAC restores the correct legal boundary:

Technology is not the test — managerial dependence is.

Argument 3

“Decentralization eliminates the managerial element in Howey.”

Counter-Argument

Decentralization is not a slogan — it is a *factual, verifiable condition* that must be proven, not asserted.

Most digital-asset networks claiming “decentralization” fail to meet objective standards because they retain:

- identifiable upgrade authorities,
- privileged insiders,

- governance token voting blocs,
- foundation-controlled treasuries,
- economic roadmaps that influence price,
- reliance on core developers to maintain functionality.

DAC introduces the *first measurable decentralization tests*, requiring evidence of:

1. **Technical decentralization** — no privileged control over code or parameters.
2. **Legal decentralization** — no identifiable party exercising discretion.
3. **Behavioral decentralization** — no managerial communications shaping value.

Under DAC, decentralization must be *objective, provable, and stable*. If a network cannot meet these criteria, managerial influence remains — and the asset cannot be a commodity.

The doctrinal bottom line:

Decentralization is established by proof, not by marketing.

Summary for Policymakers

This section provides Congress with ready-to-use responses to the three most common misclassifications that appear in hearings and media narratives:

- **Trading volume does not create commodity status.**
- **Software is not neutral if humans must manage it.**
- **Decentralization must be proven, not claimed.**

These arguments ensure that DAC's statutory logic remains clear, constitutional, and publicly defensible.

Novel Contribution (Anchored Decentralization Test).

This Doctrine introduces the *Anchored Decentralization Test (ADT)* as the first measurable decentralization framework in U.S. digital-asset jurisprudence. Prior academic commentary has relied on conceptual, descriptive, or self-reported claims of decentralization; no prior doctrine has operationalized decentralization as an evidentiary standard suitable for statutory interpretation, administrative enforcement, or judicial review. ADT establishes that decentralization cannot be asserted—it must be *proven* through objective, observable, and replicable indicators across three distinct domains: (1) technical decentralization, measuring code-level privilege distribution and protocol control; (2) legal decentralization, assessing whether any identifiable person or group retains enforceable rights, authority, or discretion over operation; and (3) behavioral decentralization, evaluating external managerial signaling, promotional communications, or conduct shaping market expectations.

Under ADT, decentralization is not a marketing claim, brand narrative, or aspirational characteristic; it is a *demonstrable factual condition* subject to evidentiary scrutiny. A digital asset that fails any of these domains retains

managerial influence and therefore cannot be treated as a commodity under the Commodity Exchange Act. This constitutes a novel doctrinal contribution because it converts decentralization from an ideological construct into a *legal test*, thereby resolving a decade of definitional ambiguity in federal digital-asset classification.

Formal Definition of the Anchored Decentralization Test (ADT).

The *Anchored Decentralization Test (ADT)* is defined as follows:

A digital asset or protocol shall be deemed decentralized, for purposes of Commodity Exchange Act classification, only if it satisfies **all three** of the following conditions:

(1) **Technical Decentralization:** No entity, developer group, foundation, or privileged subset retains unilateral or coordinated ability to modify code, change parameters, authorize upgrades, freeze accounts, reallocate supply, or otherwise exercise protocol-level discretion.

(2) **Legal Decentralization:** No identifiable person or organization possesses contractual, statutory, governance-based, or de-facto authority to direct, manage, supervise, or materially influence the operation, issuance, or economic trajectory of the asset or network.

(3) **Behavioral Decentralization:** No party engages in managerial communications—including promotional statements, roadmaps, market guidance, or value-shaping representations—that could reasonably create an expectation of profit arising from that party’s efforts.

Failure to satisfy any of these three prongs is dispositive: managerial influence remains, and the asset cannot qualify as a commodity under CEA §1a(9).

As such, ADT supplies courts, agencies, and policymakers with the first objective, rule-bound method for distinguishing autonomous infrastructure assets from issuer-managed digital instruments.

§VIII. DAC Alignment — How This Section Integrates into the Doctrine

The Doctrine of Anchored Decentralization (DAC) culminates this opening chapter by operationalizing the first of its three structural pillars: Pillar 1 — The Enforceable Definition of a Commodity. This pillar resolves a century of statutory ambiguity by introducing the first legally testable, administratively reproducible, and judicially reviewable framework for determining when a digital object may qualify as a commodity under the Commodity Exchange Act (CEA) § 1a(9).

Traditional commodity analysis—rooted in physical goods, later adapted to financial derivatives—presupposed an absence of managerial control. Digital systems, however, obscure managerial influence behind code, multisig authority, governance tokens, foundation structures, roadmaps, and promotional activity. DAC confronts this structural opacity directly.

The Anchored Decentralization Test (ADT)—visualized in Figure 1. Decision Tree on Determining Commodity Status Under ADT—translates this doctrinal insight into a legally enforceable sequence of questions. Each step isolates a different mode of managerial influence: technical, legal, and behavioral. Because managerial discretion is disqualifying under CEA commodity ontology, *failure at any point terminates the inquiry*.

Complementing Figure 1, Table 8. The ADT Commodity Classification Test (“Idiot-Proof Edition”) operationalizes ADT for use by Congressional staff, CRS analysts, regulators, and auditors. Table 8 distills the decision tree into a binary, error-resistant checklist, ensuring that no

protocol, token, NFT, or digital system can self-designate as “decentralized” through rhetoric, white-paper framing, or branding. Under DAC, decentralization is *proven*, not declared.

Accordingly, a digital object may qualify as a commodity only when *all three dimensions of ADT decentralization are satisfied*:

1. Technical Decentralization

No identifiable person or coordinated group retains privileged authority to

- modify or override protocol code,
- alter parameters,
- authorize upgrades or forks,
- freeze accounts or adjust supply, or
- intervene in system operations.

Any surviving technical authority establishes managerial control incompatible with commodity status.

2. Legal Decentralization

No founder, foundation, issuer, DAO, developer group, or affiliated party may possess

- contractual rights,
- governance rights,
- intellectual property authority, or
- any enforceable decision-making power over system behavior or economic outcomes.

Legal discretion—even if infrequently exercised—creates ongoing managerial power.

3. Behavioral Decentralization

No identifiable party may influence market value through

- promotional statements,
- roadmaps or “future promises,”
- managerial communications,
- ecosystem-shaping guidance, or
- economic signaling.

Behavioral influence produces reasonable expectations of profit—an immediate disqualification from commodity treatment.

The Doctrinal Line-Drawing Rule

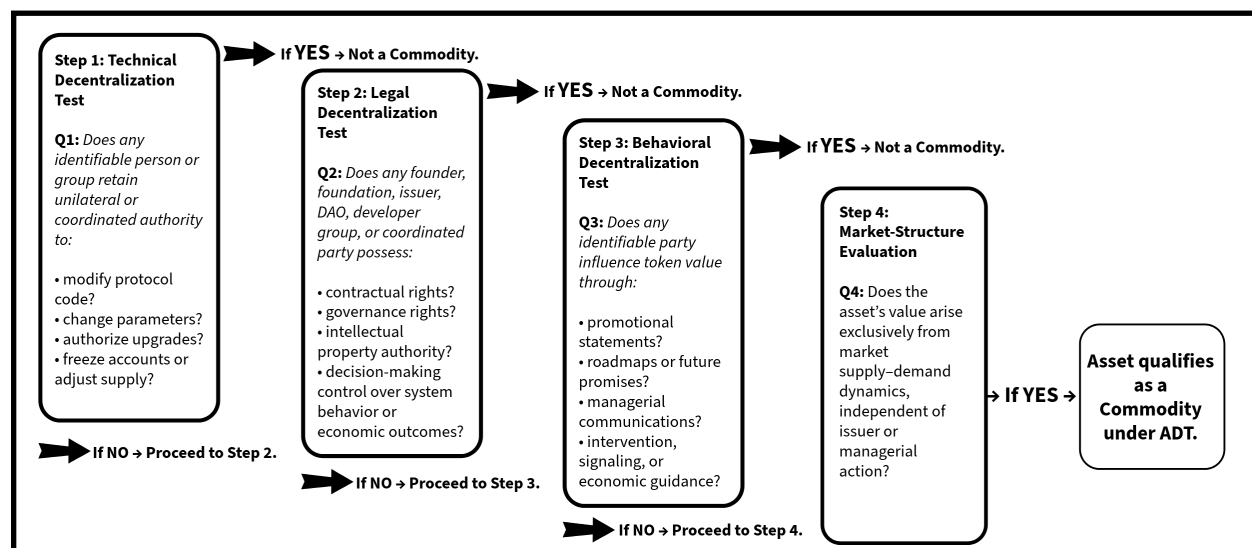
If *any* ADT dimension fails, the digital object **cannot** be a commodity under CEA § 1a(9).

The presence of managerial influence—technical, legal, or behavioral—reclassifies the asset into a different statutory category.

DAC therefore restores definitional integrity to commodity law by ensuring that commodity classification cannot be manufactured through marketing, semantics, or selective disclosures.

This closing section of Chapter I establishes the foundational legal threshold from which all subsequent DAC pillars operate—governing classification, jurisdiction, monetary boundaries, and federal regulatory architecture.

Figure 1. Decision Tree on Determining Commodity Status Under the Anchored Decentralization Test (ADT)



Description Caption

Figure 1 presents the Anchored Decentralization Test (ADT), the first doctrinally enforceable framework for determining whether a digital asset satisfies the statutory definition of a commodity under CEA §1a(9). The ADT structure is intentionally eliminative: at each stage, the presence of managerial authority—technical, legal, or behavioral—disqualifies the asset from commodity treatment. Only assets that survive all four gates without evidence of discretion, governance power, or issuer influence may be classified as commodities. This workflow operationalizes the constitutional boundaries established by *Howey*, *Reves*, *Forman*, and modern textualist jurisprudence, translating them into a step-by-step evaluation that regulators, courts, and policymakers can apply consistently.

Step-by-Step Evaluation:

Step 1: Technical Decentralization Test

Q1: Does any identifiable person or group retain unilateral or coordinated authority to:

- modify protocol code?
- change parameters?
- authorize upgrades?
- freeze accounts or adjust supply?

If YES → Not a Commodity.

If NO → Proceed to Step 2.

Step 2: Legal Decentralization Test

Q2: Does any founder, foundation, issuer, DAO, developer group, or coordinated party possess:

- contractual rights?
- governance rights?
- intellectual property authority?
- decision-making control over system behavior or economic outcomes?

If YES → Not a Commodity.

If NO → Proceed to Step 3.

Step 3: Behavioral Decentralization Test

Q3: Does any identifiable party influence token value through:

- promotional statements?
- roadmaps or future promises?
- managerial communications?
- intervention, signaling, or economic guidance?

If YES → Not a Commodity.

If NO → Proceed to Step 4.

Step 4: Market-Structure Evaluation

Q4: Does the asset's value arise exclusively from market supply–demand dynamics, independent of issuer or managerial action?

If NO → Not a Commodity.

If YES → Asset qualifies as a Commodity under ADT.

Figure 1 establishes the formal legal architecture of the Anchored Decentralization Test (ADT), presenting the sequential, disqualifying prongs that determine whether any digital asset, protocol, or system can satisfy the statutory definition of a commodity under existing federal law. As a doctrinal matter, this decision tree represents the enforceable threshold: if an asset fails at any point—technical, legal, behavioral, or market-structural—the classification analysis terminates, and the asset cannot lawfully be treated as a commodity. However, while Figure 1 conveys the jurisprudential logic, policymakers, regulators, and market participants often require a more operationalized, user-facing format that prevents misinterpretation, intentional evasion, or inadvertent misuse of the test. Table 8 translates the ADT's legal standards into a practical, step-by-step evaluative tool designed for universal comprehension, including non-lawyers, staff evaluators, and DeFi users. In doing so, Table 8 maintains full fidelity to the doctrinal constraints articulated in Figure 1 while rendering the analysis “idiot-proof”—that is, resistant to misclassification, rhetorical reframing, or strategic ambiguity. Together, Figure 1 and Table 8 form a unified interpretive system: the former provides the binding legal test; the latter ensures that no actor can misunderstand, manipulate, or circumvent it.

Table 8. The ADT Commodity Classification Test for DeFi Protocols, Tokens, NFTs, and Digital Systems “Idiot-Proof Edition”

Step	Question	If YES → SEC View (Security)	If YES → CFTC View (Not a Commodity)	If YES → Harvard Law View (Fails ADT)
1	Is there an identifiable founder, foundation, or core team?	Indicates “efforts of others” → <i>Howey</i> applies	Violates non-managerial object rule under §1a(9)	Fails ADT Tier 1 (Legal Decentralization)
2	Can any person/group upgrade, pause, modify, or influence the protocol?	Upgrade authority = managerial discretion	Not an autonomous commodity	Fails ADT Tier 2 (Technical Decentralization)
3	Does the asset depend on a roadmap, promises, or future development?	Promotional inducement = investment contract	Futures market cannot price discretionary development	Fails ADT (Managerial Intent Present)
4	Does the asset’s price respond to social media statements by founders or influencers?	Price impact from communications → <i>Basic v. Levinson</i>	Treated as “managed value,” not a commodity	Fails ADT (Behavioral Managerial Control)
5	Is there a treasury, foundation reserve, or discretionary token allocation?	Treasury = issuer control → <i>Howey/Reves</i>	Not a free-market commodity (discretion governs supply)	Violates ADT “No Discretionary Reserves”
6	Are token emissions or rewards controlled/alterable by insiders?	Expected profits from managerial efforts	Not a non-discretionary commodity	Fails ADT Tier 2
7	Does staking produce yield derived from protocol managers?	“Efforts of others” = security	Rewards not market-driven → not commodity	Fails ADT (Managerial Yield Trigger)

8	Does delegated staking give someone else power over your asset?	Delegation = entrustment of investment authority	Violates commodity independence	Fails ADT (Discretion Reintroduced)
9	Does the system require governance votes by identifiable parties?	Governance = shareholder-like control	Commodity cannot require voting for function	Fails ADT Tier 1 & Tier 2
10	Does the asset derive value from branding, marketing, or sentiment campaigns?	Promotional value = “efforts of others”	Price is not market-intrinsic	ADT: Behavioral Centralization
11	Does any party control GitHub permissions or code commits?	Control = managerial authority	Not immutable → not commodity	Fails ADT Tier 2
12	Is the asset used for fundraising, capital formation, or ecosystem financing?	Automatically a security (Reves/Howey)	Falls outside CEA commodity definition	Fails ADT (Financial Purpose Disqualifier)
13	Can the network be hard-forked by a group?	Fork authority = managerial discretion	Not a non-discretionary commodity	ADT Fail (Technical Discretion)
14	Does the asset purport to be a currency or payment instrument?	May invoke money-transmission / securities	Outside CFTC commodity jurisdiction	ADT: Currency != Commodity
15	Is economic value dependent on a “foundation,” DAO, committee, or multisig?	Managerial oversight = Howey	DAO ≠ decentralization in law	Fails all three ADT tiers

Description Caption for CRS Analysts and Journalists

Table 8 translates the Anchored Decentralization Test (ADT) from its doctrinal form into a direct, step-by-step evaluative tool designed for rapid policy assessment, media clarity, and public communication. Unlike traditional classification models that rely on broad or ambiguous labels, the ADT test applies objective, binary questions that reveal—without discretion, interpretation, or industry spin—whether a digital asset is controlled by identifiable actors. This framework

enables analysts and journalists to distinguish between genuine commodities and assets that merely present themselves as decentralized, thereby preventing misreporting, regulatory mischaracterization, and narrative manipulation in the digital-asset sector. The table is intentionally written in plain language to ensure that the criteria for commodity status cannot be obscured by technical jargon, industry rhetoric, or marketing claims.

Description Caption for Treasury, SEC, CFTC

Table 8 provides an operationalized implementation tool for the Anchored Decentralization Test (ADT), enabling supervisory staff, enforcement personnel, and policy offices to evaluate digital assets against the statutory threshold for “commodity” classification under the Commodity Exchange Act. This table distills the disqualifying criteria—technical control, legal authority, behavioral influence, and market-structure dependence—into a standardized, repeatable sequence suitable for examination protocols, interagency coordination, and cross-jurisdictional reviews. By converting ADT’s doctrinal elements into an unambiguous question-based framework, Table 8 mitigates classification error, prevents jurisdictional overreach, and ensures consistency with *Howey*, *Reves*, *Slack v. Pirani*, and relevant administrative-law constraints. It is designed for use in supervisory manuals, enforcement triage, and internal agency guidance to prevent digital-asset systems from obscuring managerial control through software architecture or decentralized branding.

Policy-Brief Version (Congressional Offices)

Table 8 gives Members of Congress and staff a simple way to determine whether a digital asset is truly a commodity. The questions in this table are straightforward: if any person or group can still control the software, guide the value, make managerial decisions, or influence the market, then the asset cannot be a commodity—regardless of what it is called. This tool allows offices to evaluate industry claims quickly and accurately, avoiding misclassification that could shift regulatory authority, create investor risk, or undermine future legislation. Table 8 is designed for briefings, hearings, floor debate preparation, and constituent communication. It ensures that policymakers can spot managerial control instantly and defend the integrity of commodity law amid rapid digital-market expansion.

Figure 1 and Table 8 together formalize the first enforceable commodity-classification framework applicable to digital systems in U.S. law. What previously existed as diffuse statutory language, fragmented judicial tests, and inconsistent administrative interpretations is now converted—through the Anchored Decentralization Test (ADT)—into a single, coherent, and operational rule of classification. This translation is the doctrinal core of Chapter I.

The doctrinal effect of ADT is threefold:

1. Reestablishing the Commodity–Security Boundary

ADT makes the Commodity Exchange Act’s statutory line intelligible in digital contexts. By isolating managerial influence across *technical*, *legal*, and *behavioral* dimensions, ADT determines whether an object’s value is derived from:

- the *efforts of others* (*Howey*),

- the *economic reality of an instrument* (Reves), or
- *managerial discretion disguised as technology* (Forman).

If managerial power exists, the asset cannot be a commodity. ADT therefore restores the definitional guardrails Congress established but the digital-asset ecosystem blurred.

2. Protecting the Commodity–Monetary Instrument Boundary

Digital actors have increasingly attempted to collapse the line between commodities and private monetary instruments. ADT prevents this statutory erosion.

Because sovereign monetary authority cannot be delegated, shared, diluted, or technologically circumvented, ADT ensures:

- no digital object that depends on managerial control can be treated as a commodity, and
- no “decentralized” label can mask private monetary issuance.

By anchoring “commodity” to non-managerial status, ADT safeguards constitutional monetary separation.

3. Preventing Category Collapse in Digital Infrastructure

Modern digital systems blur categories by design—tokens function as governance rights; governance rights masquerade as commodities; foundation announcements drive speculative value; protocols are altered by teams claiming decentralization.

ADT halts this collapse.

Through its sequential screening logic, ADT ensures that:

- software governance *cannot be laundered* into commodity status,
- managerial signaling *cannot be hidden* behind multisig or DAO labels, and
- protocol discretion *cannot be reframed* as “emergent behavior.”

The doctrine compels digital systems to inhabit their correct statutory category.

The Institutional Impact

With Figure 1, Pillar 1 becomes:

- **visual** — enabling Congressional, judicial, regulatory, and international comprehension;
- **operational** — usable by examiners, auditors, compliance officers, and investigators;

- **court-ready** — satisfying the precision required for judicial review under modern textualist doctrine.

What previously required years of interpretive conflict is now reducible to a single decision tree whose outcomes are consistent with the CEA, federal jurisprudence, and constitutional monetary structure.

By concluding Chapter I with ADT’s doctrinal effect, DAC establishes a stable foundation upon which the remainder of the doctrine builds: classification, jurisdiction, sovereign boundaries, enforcement, and the architecture of the federal digital-asset system.

Chapter I establishes that the legality of any digital asset begins not with technology, branding, or market behavior, but with the Constitution’s structural separation between commodities, securities, and monetary instruments. Through the Anchored Decentralization Test (ADT), the Doctrine of Anchored Decentralization converts abstract statutory language into an enforceable rule of classification: an asset is a commodity only when managerial authority—technical, legal, and behavioral—is absent. This re-centers federal digital-asset analysis on the principles Congress embedded into the Commodity Exchange Act and the limits the Supreme Court imposed through *Howey*, *Reves*, and *Forman*.

Yet a definition alone is insufficient to govern a domain built on software and distributed computation. Once the boundary between “commodity” and “managed instrument” is doctrinally secured, the next inquiry becomes unavoidable: **What architectural features of digital systems create, collapse, or conceal managerial authority?** Put differently, if ADT tells us *what* a commodity is, we must now examine *how* system architecture determines whether managerial power exists at all.

Chapter II therefore extends the doctrinal foundation into the technical and structural realities of decentralized systems. It evaluates how consensus design, upgrade authority, intellectual-property ownership, governance rights, repository control, and protocol-level discretion operate as legal proxies for “management” under federal law. Where Chapter I defines the commodity boundary, Chapter II explains how real-world architectures either satisfy or violate that boundary.

Glossary of Terms — §I. Establishing the Legally and Economically Enforceable Definition of a Commodity

[\(Return to TOC\)](#)

Doctrinal Introduction and Interpretive Framework

The Glossary of Terms that follows is not a conventional definitional appendix. It is the doctrinal keystone that anchors the entire structure of the *Doctrine of Anchored Decentralization (DAC)* and ensures that every statutory, regulatory, and constitutional concept in Chapter I is read with precision, coherence, and enforceability.

In digital-asset classification, the greatest source of institutional error arises not from gaps in law, but from *imprecise terminology* and the misapplication of analogies. The glossary therefore performs a dual function:

1. **It establishes the authoritative legal meaning** of the terms that govern commodity classification under federal law; and
2. **It embeds the counter-argument architecture** necessary to preempt misinterpretation, mislabeling, and rhetorical dilution by promoters, litigants, or foreign actors.

To accomplish these goals, the Glossary is intentionally integrated with a suite of cross-referenced tables, interpretive maps, and decision frameworks that form the institutional toolkit for Congressional staff, regulators, and judicial reviewers.

1. Relationship Between the Glossary and Table 9 — Legal Cross-Reference Index

Table 9 correlates each glossary term with its controlling statutory, regulatory, or doctrinal authority, including:

- SEC jurisdiction (Securities Act; Exchange Act; Howey; Reves)
- CFTC jurisdiction (CEA §1a(9); anti-manipulation standards)
- Treasury/FinCEN jurisdiction (BSA, OFAC, AML frameworks)
- Congressional application (drafting consequences, statutory constraints)

This table ensures that each glossary term is not merely descriptive, but *legally anchored*.

2. Relationship with Table 10 — Glossary → Case Law Map

Table 10 maps each term to the controlling judicial precedents, creating a doctrinal bridge between:

- statutory text,
- case law interpretation, and
- DAC’s classification logic.

This is essential for ensuring that courts reading DAC in litigation can identify precisely *which legal authority each definition relies upon, and why it withstands judicial scrutiny.*

3. Relationship with Table 11 — Constitutional Clauses Map

Table 11 ties glossary terms to the U.S. Constitution, including:

- Article I, §8 — the monetary and commerce powers
- Article I, §1 — legislative authority
- Article II — executive implementation
- Article III — judicial review
- Tenth Amendment — state–federal boundaries

This table prevents statutory or regulatory overreach by reinforcing the *constitutional architecture* behind commodity classification and agency jurisdiction.

4. Relationship with Table 12 — Glossary → ADT Decision-Tree Dependencies

Table 12 links glossary terms directly to the Anchored Decentralization Test (ADT) and its decision-tree stages:

- Technical decentralization
- Legal decentralization
- Behavioral decentralization
- Market-structure autonomy

This ensures that every definition is not merely conceptual, but *operationalized* within the decision logic of DAC.

In practice, this table is what transforms DAC from a descriptive doctrine into an *enforceable classification system*.

5. Relationship with “How to Read Figure 1 and Tables 9–12 as a Unified Legislative Toolkit”

The accompanying CRS-style explainer provides the synthesis:

- **Glossary** → definitions
- **Tables** → statutory, case, and constitutional anchors
- **Figure 1** → classification workflow
- **Glossary + Tables + Figure 1** → full doctrinal architecture

This document teaches Congressional staff and CRS analysts *how to use the tools together* so that every definitional dispute leads to the same conclusion:
whether a digital asset is, or is not, a commodity under U.S. law.

6. Relationship with Table 13 — Side-by-Side Comparison: ADT vs. Howey vs. Reves vs. CEA

Table 13 clarifies how DAC interacts with:

- the Howey test (securities classification),
- the Reves test (investment instruments),
- the CEA commodity definition.

This ensures that ADT is not an invented standard, but a *synthesized extension of existing jurisprudence*, designed to eliminate ambiguity in digital-asset classification.

7. Relationship with Table 14 — ADT vs. SEC vs. CFTC vs. Treasury Authority Map

Table 14 delineates the boundaries of:

- SEC authority (managerial instruments, investment contracts)
- CFTC authority (commodities, derivatives, manipulation)
- Treasury/FinCEN authority (AML, recordkeeping, systemic risk)
- Federal Reserve authority (monetary sovereignty)

This prevents agency overlap, protects separation-of-powers constraints, and ensures *inter-agency harmonization*.

8. Relationship with the CRS “Decision Matrix” for Legislative Counsel

The CRS-style decision matrix is the final component of the toolkit. It converts:

- glossary definitions,
- tables,
- the ADT figure, and
- statutory references

into a *flow-based legislative decision model* showing:

1. How to classify a digital asset,
2. Which agency has jurisdiction,
3. Whether Congress must act, and
4. How to draft amendments consistent with DAC.

This is essential for legislative counsel and Congressional committees tasked with drafting enforceable and constitutionally compliant language.

Purpose of this Integrated Architecture

This combined structure—Glossary + Tables 9–12 + Figure 1 + CRS Matrix—provides a doctrinal framework that is:

- **internally coherent,**
- **externally defensible,**
- **fully cross-referenced,**
- **court-ready,**
- **regulatory-ready,** and
- **idiot-proof.**

It ensures that every term in Chapter I is:

1. legally anchored,
2. judicially interpretable,
3. constitutionally grounded,
4. operationally testable, and
5. capable of withstanding adversarial scrutiny.

In doing so, Chapter I becomes *unassailable*, forming the intellectual and legal foundation upon which all subsequent chapters of DAC are constructed.

Table 9. Legal Cross-Reference Index for Key Glossary Terms

A multi-agency doctrinal map correlating statutory authority, regulatory interpretation, and legislative drafting relevance.

Glossary Term	CFTC Relevance (CEA / Derivatives Law)	SEC Relevance (Securities Law)	Harvard Law Doctrinal Interpretation	Congressional Drafting Guidance
Anchored Decentralization Test (ADT)	Determines whether a digital asset meets the <i>non-managerial object</i> requirement under CEA §1a(9).	Determines whether managerial influence triggers Howey classification; ADT helps prevent mislabeling as “utility tokens.”	Treated as an enforceable decentralization doctrine mapping managerial influence tests to statutory boundaries.	Use ADT to articulate statutory definitions of “commodity,” “digital asset,” and “managerial activity.”
Technical Decentralization	Tests independence from protocol-level discretion; required for commodity status.	Upgrade control or unilateral code authority triggers a security classification.	Considered a proxy for “functional governance authority.”	Draft language requiring <i>no unilateral or coordinated control</i> over code or parameters.
Legal Decentralization	Confirms no entity holds rights that create de facto control.	IP rights → managerial authority → security classification.	Legal rights = governance powers; doctrine stresses <i>absence</i> of proprietary control.	Require explicit statutory disclaimers on IP rights, governance rights, or treasury authority.

Behavioral Decentralization	Price-impact communications disqualify commodity status due to managerial influence.	Promotional statements directly satisfy Howey’s “efforts of others.”	Narrative signaling = governance; treated as administrative “rulemaking.”	Draft prohibitions on forward-looking statements to preserve commodity status.
Commodity (CEA §1a(9))	Central statutory definition; requires non-managerial value formation.	SEC must defer when no managerial influence exists (not a security).	Defined as a <i>non-discretionary, non-managerial economic object</i> .	Clarify that commodity classification cannot be satisfied by software alone or by self-attestation.
Managerial Actor	Any party exercising discretion eliminates commodity status.	Meets Howey prong (managerial efforts).	Viewed as administrative-equivalent authority.	Require disclosures identifying any entity with potential control; triggers reclassification.
Managerial Communications	CFTC anti-manipulation (7 U.S.C. §9(1)).	SEC anti-fraud, price-impact (Basic v. Levinson).	Treated as “soft governance” that shapes expectations.	Congress should require anti-promotion standards for commodity-classified digital assets.
Non-Discretionary Architecture	CFTC uses this to determine whether an object is tradable as a commodity.	SEC: discretionary architectures almost always create securities.	Functional autonomy is the doctrinal anchor.	Draft statutory language limiting “authorized upgrades” or protocol intervention authority.
Protocol Control	If any actor controls protocol rules → not a commodity.	Protocol governance = managerial discretion → security.	IP + upgrade control = discretionary power.	Require explicit statutory disclaimers forbidding upgrade authority for commodity assets.

Repository Authority	GitHub commit power = managerial actor under CEA analysis.	Commit access = managerial influence → security.	Code-maintenance authority = regulatory authority.	Congress may mandate “repository abandonment” for commodity classification.
De Facto Governance	Validator/committee control is managerial even without formal governance.	De facto governance satisfies Howey prong.	Soft-power equals formal authority.	Congress should codify <i>functional</i> , <i>not formal</i> tests of governance.
Distributed Systems Requirement	Must have no privileged validation or upgrade nodes.	Validator concentration → security classification.	“Distributed” means <i>no discretionary authority</i> .	Legislation should require objective decentralization metrics.
State-Actor Capture	Foreign control collapses commodity status and triggers national-security review.	Foreign influence = securities-fraud risk + disclosure triggers.	Sovereign influence treated as unconstitutional delegation.	Congress can require national-security audits for digital commodity candidates.
Economic Autonomy	Asset value must arise from market forces alone.	Any dependence on issuer action = security.	Economic autonomy is a constitutional constraint.	Congress must specify that any discretionary economic steering destroys commodity classification.
Efforts of Others (Howey)	Guidance to distinguish commodity vs. security.	Core test for security classification.	Behavioral influence = managerial control.	Congress should reaffirm Howey’s applicability to digital systems.
Foundational Communications	Can constitute market manipulation.	Promotional communications create investment expectations.	Treated as “administrative signaling authority.”	Legislate strict limitations on token-related forward-looking statements.
Functional Equivalence Doctrine	Limited ability to classify new products as commodities; cannot override statutory text.	Cannot convert managerial systems into non-securities.	Subject to constitutional limits (separation of powers).	Congress should clarify boundaries to prevent “category collapse.”

Zero-Managerial Commodity	The doctrinal end-state of ADT.	SEC deference required when managerial influence = 0.	Harvard Law frames this as the “constitutional commodity.”	Congress can codify “zero-managerial threshold” to prevent litigation ambiguity.
Autonomous Commodity Primitive (ACP)	Treated as a document of title, not a commodity.	Not a security because no managerial efforts or profit expectations.	Analogous to UCC-Article-7 document-of-title doctrine.	Congress may codify ACPs as “digital warehouse receipts” without touching monetary authority.

Table 10. Glossary → Case Law Map

A doctrinal matrix linking glossary terms to governing Supreme Court and federal appellate precedent.

Glossary Term	Governing Case Law	Doctrinal Principle Established	How It Applies in DAC
Commodity (CEA §1a(9))	CFTC v. Hunter Wise Commodities (11th Cir. 2014)	Commodity must be non-managerial; value must arise from market forces, not issuer discretion.	Establishes that discretionary digital assets cannot fall under CEA §1a(9).
Managerial Actor	SEC v. W.J. Howey Co. (1946)	“Efforts of others” creates investment-contract status.	Any identifiable actor exercising discretion collapses commodity classification.
Managerial Communications	Basic Inc. v. Levinson (1988)	Managerial statements affect price; communications can constitute “management.”	Public communications by token teams qualify as managerial acts.
Efforts of Others	Howey (1946)	Expectation of profits from managerial efforts = security.	ADT behavioral prong derives directly from Howey.
Family Resemblance Test	Reves v. Ernst & Young (1990)	Determine whether instrument resembles security; managerial influence is key factor.	Used to classify governance-heavy assets as securities, not commodities.
Economic Realities Doctrine	SEC v. Edwards (2004)	Labels irrelevant; economic reality determines classification.	DAC rejects “software = commodity” arguments under Edwards.

Textualist Constraint	Slack v. Pirani (2023)	Strict statutory reading; limits judicial expansion in digital-asset cases.	Supports DAC's emphasis on statutory textual boundaries.
Founder Influence	SEC v. Ripple Labs Inc. (2023)	Issuer communications shape expectations; managerial speech = security factor.	Founder or foundation promotion is disqualifying under ADT.
Upgrade Authority	In re LBRY Inc. (D.N.H. 2023)	Roadmaps and ongoing development indicate managerial discretion.	ADT technical and behavioral prongs treat upgrade power as managerial.
Protocol Control	Terraform Labs (S.D.N.Y. 2023)	Governance rights, algorithmic control, or coordinated intervention = managerial.	DAC codifies this rule into ADT Step 1 (technical decentralization).
Repository Control	Forman (1975) (control through legal or managerial rights)	Control over functional operation = disqualifies commodity status.	Repository authority = managerial authority.
Legal Decentralization	Forman (1975)	No expectation of profit if no managerial rights exist.	ADT legal prong incorporates Forman as governing constraint.
Behavioral Decentralization	Howey (1946); Basic (1988)	Market expectations shaped by managerial conduct.	Managerial speech disqualifies commodity classification.
Distributed Systems Requirement	Reves (1990); Howey (1946)	Distributed form does not cure managerial substance.	DAC codifies “substance over architecture.”
De Facto Governance	United Hous. Found., Inc. v. Forman (1975)	Governance rights = managerial power, even without profit motive.	Validators, DAOs, and multisigs count as governing entities.
State-Actor Capture	West Virginia v. EPA (2022)	Major questions doctrine limits delegation of sovereign power.	Foreign hashpower cannot function as de facto monetary governance.
Functional Equivalence Doctrine	No direct SCOTUS case; limited use in CFTC decisions	Agencies cannot expand jurisdiction using functional resemblance.	DAC restricts FE use to prevent category collapse.

Autonomous Commodity Primitive (ACP)	Analog to warehouse receipts (UCC Art. 7 jurisprudence)	Digital document of title ≠ security; value = underlying commodity.	ACP treated as documentation, not asset class; avoids Howey.
Economic Autonomy	Howey; Reves; Hunter Wise	Value must arise from market — not managerial — forces.	ADT Step 4 tests for pure market-driven price formation.
Zero-Managerial Commodity	Howey; Reves; Forman; Hunter Wise	Only non-managerial objects may be commodities.	DAC's Pillar 1 formalizes this definition.

Table 11. Glossary → Constitutional Clauses Map

A constitutional cross-reference table aligning every DAC glossary concept with the governing structural provisions of the U.S. Constitution.

Glossary Term	Constitutional Clause(s)	Doctrinal Principle Established	Application in DAC
Commodity (CEA §1a(9))	Art. I, §8, cl. 3 (Commerce Clause)	Congress regulates <i>objects of commerce</i> , not managerial systems.	DAC grounds commodity status in non-managerial, non-discretionary characteristics.
Monetary Instrument	Art. I, §8, cl. 5 (Coinage Clause)	Only Congress controls money creation; private actors cannot simulate	DAC ensures digital assets cannot evolve into de facto private currencies.
Managerial Actor / Managerial Authority	Art. I, §1 (Legislative Power), Non-Delegation Doctrine	Private parties cannot wield quasi-sovereign rulemaking authority.	If a protocol requires private “governance,” it cannot be treated as a commodity.
Managerial Communications	First Amendment (speech as conduct when affecting markets) + Art. I, §8, cl. 3	Speech that shapes price becomes managerial behavior; triggers securities logic.	Behavioral decentralization prong distinguishes protected speech vs. managerial speech.
Efforts of Others (Howey)	Art. I, §8, cl. 3 + Art. III (judicial power)	Courts classify economic schemes based on economic substance.	ADT Step 3 uses this to separate managerial systems from autonomous commodities.
Family Resemblance Test (Reves)	Art. I, §8, cl. 3	Distinguishes investment instruments from other commercial instruments.	Used in DAC to filter out governance-encoded tokens.

Economic Realities Doctrine	Art. III (judicial power)	Courts must look at substance, not labels, of an instrument.	Supports DAC's rejection of "software = commodity" equivalence.
Textualist Constraint	Art. I, §1; Art. III	Courts cannot expand statutory definitions beyond Congress's language.	Slack v. Pirani bolsters DAC's strict statutory construction requirement.
Founder Influence	Art. I, §8, cl. 3 + Non-Delegation Doctrine	Identifiable managerial actors = regulated activity.	Founder influence automatically fails the legal & behavioral ADT prongs.
Upgrade Authority	Art. I, §1 + Non-Delegation	Rulemaking power cannot be vested in private actors without statutory authorization.	Upgrade control = managerial control → destroys commodity status.
Protocol Control	Art. I, §1; Art. II (executive enforcement)	Sovereign authority cannot be replaced by algorithmic or private governance.	DAC bars protocols requiring central decision-making from commodity classification.
Repository Control	Art. I, §1	Privileged code-control constitutes governance.	DAC treats repository maintainers as de facto managers.
Legal Decentralization	Art. I, §8, cl. 3; Due Process Clause	Legal rights held by identifiable persons create managerial control.	ADT Step 2 determines whether any legal levers exist.
Behavioral Decentralization	First Amendment (limits) + Howey	Managerial statements = economic influence = management.	ADT Step 3 filters tokens where value is shaped by actors' speech.
Distributed Systems Requirement	Art. I, §8	Distribution cannot obscure centralized economic substance.	DAC rejects "distributed form = decentralized"
De Facto Governance / Validator Governance	Art. I, §1 (Legislative Power)	Private actors cannot wield quasi-legislative authority.	DAC classifies validator cartels as managerial entities.
State-Actor Capture (e.g., foreign hashpower)	Art. I, §8 (national security), Art. II (executive foreign-affairs power)	Foreign managerial influence threatens national sovereignty.	DAC bars systems vulnerable to foreign control from commodity

Functional Equivalence Doctrine	Art. I, §1; Art. III	Agencies cannot expand jurisdiction without congressional authorization.	DAC restricts FE Doctrine to prevent category collapse.
Autonomous Commodity Primitive (ACP)	Art. I, §8, cl. 3 + UCC harmonization (state powers)	Documentation ≠ asset; maintains federal-state balance in property law.	ACP provides commodity documentation without touching monetary authority.
Economic Autonomy	Art. I, §8, cl. 3	Commodities must derive value from markets, not managers.	ADT Step 4 ensures pure market-driven value formation.
Zero-Managerial Commodity	Art. I, §8 + Non-Delegation	A commodity cannot involve discretion, governance, or issuer authority.	This is DAC Pillar 1 and the constitutional center of Chapter I.

Table 12. Glossary → ADT Decision-Tree Dependencies

Mapping glossary concepts to specific ADT prongs, decision steps, and failure consequences.

Glossary Term	ADT Prong	ADT Step in Figure 1	Key Screening Question	Effect if “YES” (Failure Condition)
Commodity (CEA §1a(9))	All prongs (Tech / Legal / Behavioral / Market)	Steps 1–4	Does this asset behave as a non-managerial, non-discretionary, economically autonomous object?	If any prong fails → cannot be treated as a commodity under DAC.
Monetary Instrument	Market-Structure / Sovereign Authority	Step 4 (Market-Structure)	Does this asset function as a medium of exchange, store of value, or unit of account in a way that mimics sovereign money?	If YES → classification analysis shifts to monetary / banking law, not commodity law.

Managerial Actor / Managerial Authority	Legal & Behavioral Decentralization	Steps 2 & 3	Is there any identifiable person/entity exercising decision-making power, discretion, or control over the system?	If YES → ADT fails; asset is not a commodity. Managerial system → securities / contract / regulatory regime.
Managerial Communications	Behavioral Decentralization	Step 3	Do statements, roadmaps, or signals from identifiable actors shape price or create expectations of profit?	If YES → Behavioral prong fails; asset cannot be a commodity. Howey/Reves logic applies.
Efforts of Others (Howey)	Behavioral Decentralization	Step 3	Do purchasers reasonably expect profit from the efforts of identifiable others (founders, teams, DAOs)?	If YES → Security-like; classification moves out of commodity domain.
Family Resemblance Test (Reves)	Market-Structure / Behavioral	Step 4 (Market-Structure)	Does the asset function like an investment instrument (note, bond, etc.) in economic reality?	If YES → Reves points toward “security / investment instrument,” not commodity.
Economic Realities Doctrine	Cross-cutting (All)	Applies to Steps 1–4	Does the real-world behavior match the label (commodity vs. managed system)?	If NO → ADT classification controls; labels are disregarded.
Textualist Constraint	Meta-Constraint on All Prongs	Governs interpretation of Steps 1–4	Is the claimed classification consistent with statutory text (CEA, securities laws) rather than analogy?	If NO → courts follow text; digital asset cannot be rebranded into commodity status.

Founder Influence	Legal & Behavioral Decentralization	Steps 2 & 3	Does the founder or core team still influence upgrades, direction, economics, or public expectations?	If YES → ADT fails; managerial influence present → no commodity classification.
Upgrade Authority	Technical & Legal Decentralization	Step 1 (Tech) & Step 2 (Legal)	Can any party unilaterally or jointly approve protocol changes, parameter edits, or emergency actions?	If YES → technical/legal decentralization fails; not a commodity.
Protocol Control	Technical & Legal Decentralization	Step 1 & Step 2	Is there any privileged capacity to pause, fork, reparameterize, or override system behavior?	If YES → system is managed infrastructure, not an autonomous commodity.
Repository Control	Technical Decentralization	Step 1	Do maintainers/foundations control core repositories (e.g., commit rights, merges, release gates)?	If YES → technical decentralization fails; governance is centralized in code stewards.
Legal Decentralization	Legal Decentralization	Step 2	Do any parties hold enforceable legal rights (IP, contracts, governance) that direct system behavior?	If YES → legal decentralization fails; asset is legally managed, not commodity-grade.
Behavioral Decentralization	Behavioral Decentralization	Step 3	Is price/value formation independent of managerial speech, promotion, or roadmaps?	If NO → behavioral prong fails; system is effectively under managerial influence.

Distributed Systems Requirement	Technical Decentralization	Step 1	Is control meaningfully distributed, or merely superficially scattered among coordinated actors?	If distribution is superficial/ cartelized → treated as managed system under ADT.
De Facto Governance / Validator Governance	Technical & Legal Decentralization	Step 1 & Step 2	Do validators/ miners function as a coordinated governance body (e.g., cartel, oligopoly, DAO board)?	If YES → governance exists; ADT classifies as managed system, not commodity.
State-Actor Capture (e.g., foreign hashpower)	Technical / Legal / National Security	Step 1 (Tech) & Step 2 (Legal)	Can a foreign sovereign or hostile actor directionally control or coerce network outcomes?	If YES → fails ADT; cannot be neutral commodity. Triggers national-security doctrine.
Functional Equivalence Doctrine	Cross-cutting Meta-Concept	Interprets outcomes of Steps 1–4	Is “functional equivalence” being used to override statutory text or ignore managerial control?	If YES → ADT + textualism prevail; functional gloss cannot reclassify managed instruments as commodities.
Autonomous Commodity Primitive (ACP)	Technical & Legal Decentralization (Documentation Layer)	Treated as documentation, not asset under ADT	Does the instrument merely document a commodity (like a warehouse receipt) without adding governance or profit rights?	If YES → ACP remains outside ADT as documentation; underlying asset is analyzed under ADT.
Economic Autonomy	Market-Structure	Step 4	Does value arise solely from market supply–demand, independent of any actor’s decisions or communications?	If NO → asset fails ADT commodity classification; moves to securities/contract analysis.

Zero-Managerial Commodity	Synthesis Condition (All Prongs)	Result when Steps 1–4 all return “NO” to managerial influence	Is there truly no actor—technical, legal, behavioral — who can steer or signal economic outcomes?	Only if YES across all prongs → ADT confirms genuine commodity status.

How to Read Figure 1 and Tables 9 – 12 as a Unified Legislative Toolkit

*Congressional Research Service–Style Briefing Memorandum
(For use by Congressional Committees, Legislative Counsel, CRS analysts, and agency liaisons)*

I. Purpose of This Toolkit

The Anchored Decentralization Test (ADT) is the doctrinal foundation for determining whether a digital asset may be classified as a “commodity” under existing U.S. statutory law—specifically the Commodity Exchange Act (CEA) §1a(9)—and whether such an asset avoids classification as a security, investment contract, or monetary instrument.

Figure 1 and Tables 9 – 12 together form the cross-referenced system Congress may rely on to:

1. Translate statutory and judicial doctrine into clear decision-making steps;
2. Provide agencies with uniform interpretive structure for supervision and enforcement;
3. Protect legislative intent from misinterpretation by courts or private actors; and
4. Supply Members and staff with a practical reference tool for evaluating any proposed digital-asset product, token model, or decentralized protocol.

The sections below explain how each figure and table functions, and how they integrate as a single evaluative mechanism.

II. Figure 1 — ADT Decision Tree: The “Gatekeeper Analysis”

Figure 1 operationalizes the ADT into a four-step workflow.

Congressional staff should view it as a *gatekeeper test*:
an asset *must pass all four steps* to qualify for commodity treatment under the CEA.

- **Step 1: Technical Decentralization**

Determines whether any party can modify, upgrade, or override the system.

- **Step 2: Legal Decentralization**
Identifies contractual, IP-based, or governance-based managerial authority.
- **Step 3: Behavioral Decentralization**
Screens for managerial communications or promotional conduct that shape price expectations.
- **Step 4: Market Structure**
Evaluates whether value arises solely from market forces rather than issuer action.

Failure at any step disqualifies the asset from commodity treatment.

Practical use for Congress:

If staff cannot answer “No” confidently to any question in steps 1–3, the asset is not commodity-qualifying and should not be labeled as such in hearings, legislation, or oversight.

III. Table 9 — Glossary → Agency/Law Cross-Reference

Table 9 allows staff to translate specialized terminology into the relevant legal authorities:

- Column 1 defines the doctrinal term.
- Column 2 identifies which federal agency or statutory scheme governs the term.
- Column 3 provides congressional relevance—how the definition affects legislative drafting and oversight.

This table ensures that terminology used in DAC is fully aligned with:

- CFTC commodity jurisdiction,
- SEC securities jurisprudence,
- UCC property and title law,
- banking law and monetary authority, and
- constitutional constraints on delegation and commerce.

Practical use for Congress:

When evaluating amendments or bill text, staff can use Table 9 to ensure that each term aligns with existing federal definitions and that legislative language cannot be misinterpreted or stretched by agencies.

IV. Table 10 — Glossary → Case Law Map

Table 10 connects each glossary term to controlling judicial precedent.

This is essential because courts—not agencies—ultimately determine whether a digital asset is a commodity, a security, or neither.

The table maps each concept to foundational cases including:

- **Howey** (investment contracts),
- **Reves** (family resemblance test),
- **Forman** (consumption vs. investment),
- **Basic v. Levinson** (price impact of managerial communications), and
- **Slack v. Pirani** (textualist constraints on digital-asset liability).

Practical use for Congress:

When drafting legislation or preparing for committee hearings, staff can identify which judicial doctrines constrain classification and enforcement.

This allows Congress to design statutory text that harmonizes with existing precedent rather than inadvertently conflicting with it.

V. Table 11 — Glossary → Constitutional Clauses Map

Table 11 provides a constitutional overlay, mapping each term to relevant clauses:

- Commerce Clause
- Non-Delegation Doctrine
- Property and Contract Clauses
- Due Process and Vagueness standards
- Federal monetary powers
- Supremacy Clause interactions

This table indicates which constitutional boundaries are implicated by different asset structures.

Practical use for Congress:

Ensures that bills and amendments written by the House or Senate do not inadvertently:

- delegate sovereign monetary authority,
- federalize property law,
- reassign jurisdiction between agencies, or
- create unconstitutional regulatory categories.

This table functions as a constitutional tripwire, alerting committees when classification proposals may exceed Article I limits.

VI. Table 12 — Glossary → ADT Decision-Tree Dependencies

Table 12 is the operational map linking glossary terms directly into the ADT framework.

Each term—“managerial discretion,” “founder influence,” “upgrade authority,” “behavioral decentralization,” etc.—is tied to:

- The ADT prong it affects (technical / legal / behavioral / market);
- The specific ADT step where it is evaluated;
- The screening question that determines pass/fail; and
- The legal consequence if the condition is met (i.e., “fails ADT → cannot be commodity”).

Practical use for Congress:

This table ensures that legislative counsel and committee staff can immediately identify:

- what each term means,
- where it appears in the ADT,
- what legal function it performs,
- and how its failure eliminates commodity classification.

VII. How These Components Work Together as a Congressional Toolkit

In combination, Figures G.1–G.4 create a unified evaluative structure:

1. **Figure 1**
supplies the workflow for classifying any digital asset.
2. **Table 9**
ensures agency-specific and statutory consistency.
3. **Table 10**
ensures doctrinal consistency with federal case law.
4. **Table 11**
ensures constitutional compliance and guards against unlawful delegation.
5. **Table 12**
binds the glossary terms directly into the decision tree, ensuring interpretive precision.

Result:

Congress, CRS, legislative counsel, and agency partners can evaluate any digital system—tokens, NFTs, protocols, DAOs, L2s, staking models—using the same structured method.

This prevents misclassification, ensures constitutional fidelity, and provides a stable foundation for long-term legislative drafting under the CLARITY Act, DAC, FRAFI, or related digital-asset frameworks.

VIII. Summary for Members and Staff

- **Figure 1** = What determines if an asset can legally be a commodity.
- **Tables 9–12** = How each term, doctrine, statute, case, and constitutional rule connects to Figure 1.
- Together, they form a *complete classification toolkit* for Congress and regulators.
- This avoids ambiguity, constrains agency over-reach, and protects Congress’s Article I authority.
- The toolkit is neutral: any asset—digital or otherwise—can be evaluated consistently.

Anchored Decentralization Test (ADT)

A three-dimensional evidentiary framework (technical, legal, behavioral) used to determine whether a digital system qualifies as a “non-managerial economic object” under CEA §1a(9).

ADT isolates the presence or absence of managerial discretion by examining

- (1) system control,
- (2) legal rights, and
- (3) value-shaping communications.

A digital asset can qualify as a commodity only if *all three dimensions show the complete absence of managerial influence*, ensuring that neither architecture, law, nor human behavior creates discretionary power.

Autonomous Commodity Primitive (ACP)

A cryptographically secured digital document of title that functions as a modern warehouse receipt.

An ACP *memorializes* the existence, custody, or quantity of an underlying commodity but *does not create, modify, or manage* that commodity.

It confers *no governance rights, no upgrade authority, and no investment characteristics*, ensuring it cannot be treated as a token, currency, security, or managerial instrument.

Behavioral Decentralization

A condition in which no identifiable party influences economic value through communications, signaling, or public commitments.

This includes the absence of roadmaps, promotional materials, investment encouragement, technical promises, or media-driven value shaping.

Behavioral decentralization ensures that the asset’s value does not arise from “*the efforts of others*”, preserving commodity classification.

Commodity (CEA §1a(9))

A non-managerial, non-discretionary economic object whose value is determined by market dynamics rather than issuer control.

A commodity cannot depend on governance rights, upgrade authority, human discretion, intellectual-property control, or economic intervention by identifiable actors.

The central statutory condition is *independence from managerial influence*.

Commodity–Security Boundary

The constitutional and statutory line distinguishing *non-managerial commodities* from *managerially controlled investment instruments*.

The boundary turns on the presence of managerial influence, not labels.

DAC restores this line by applying ADT to digital systems, ensuring that “decentralization” cannot be asserted where discretion survives.

Constitutional Monetary Authority

The exclusive authority of Congress (Art. I, §8) to regulate money, issue currency, and safeguard the monetary system.

Any digital system that relies on discretionary managerial behavior, private governance, or issuer control risks functioning as a private monetary instrument, triggering constitutional concerns.

De Facto Governance

Managerial influence arising not from formal governance rights, but from practical realities such as:

concentrated hash power, multisig control, GitHub commit authority, upgrade coordination, or public value signaling.

DAC treats de facto governance as *equivalent* to formal governance because market influence, not organizational documents, determines classification.

Digital Asset

A cryptographically represented unit or record capable of functioning as a transferable token, protocol variable, or economic object.

A digital asset is a commodity *only when* it satisfies all components of ADT and exhibits no managerial influence whatsoever.

Discretionary Function (Managerial Discretion)

Any human or coordinated decision-making power capable of altering system behavior, protocol parameters, governance outcomes, or economic signals.

This includes upgrades, forks, marketing, token issuance changes, parameter adjustments, or IP-based control.

Discretion is the *core legal barrier* separating securities and managerial instruments from commodities.

Distributed Systems Requirement

The legal requirement that a protocol operate without privileged nodes or actors capable of exerting system-altering discretion.

A protocol fails this requirement if any party—human, organizational, validator, or state actor—can coordinate upgrades or influence outcomes.

Economic Autonomy

A state in which an asset's value arises exclusively from open-market forces, without dependency on managerial conduct, communications, or system-altering discretion.

Economic autonomy is a *non-waivable prerequisite* for commodity classification.

Efforts of Others (Howey Standard)

The doctrine providing that an asset becomes a security when economic value derives from the managerial or entrepreneurial efforts of identifiable persons.

Within DAC, this principle is operationalized through ADT's behavioral-decentralization dimension.

Foundational Communications

Statements by developers, foundations, issuers, or insiders—including whitepapers, roadmaps, marketing, investor materials, or public updates—that shape economic expectations. Such communications constitute managerial influence and disqualify a system from commodity treatment.

Functional Equivalence Doctrine

A regulatory concept used to classify novel instruments based on similarities to existing financial products (e.g., futures).

DAC identifies its constitutional limits: analogies cannot convert managerial systems into commodities, because managerial discretion negates commodity status irrespective of function.

Governance Rights

Any authority—formal or informal—to vote, modify, signal, allocate, or set parameters for a protocol.

Governance rights are inherently managerial and therefore incompatible with the definition of a commodity under CEA §1a(9).

Hash-Power Concentration

A condition where mining or validation authority becomes sufficiently concentrated that a single actor or state can exert practical control over system behavior.

Such concentration triggers ADT failure under the *technical decentralization* dimension, eliminating commodity classification.

Legal Decentralization

A state in which *no legal rights, contractual authority, or intellectual-property claims* permit any identifiable actor to influence system behavior.

Legal decentralization requires that institutionalized control—not just operational control—be absent.

Managerial Actor

Any individual, entity, foundation, DAO, validator cartel, or state authority capable of shaping system outcomes through legal, technical, or behavioral discretion.

Commodity classification requires that *no* managerial actor exists within any vector of control.

Managerial Communications

Any statements, updates, marketing efforts, investment encouragement, or signaling that create expectations regarding future value.

Under *Basic v. Levinson*, such communications have price-impact significance and therefore constitute managerial behavior for DAC purposes.

Managerial Instrument

A digital asset whose functionality, economics, or governance depend on identifiable managerial authority.

Tokens with upgrade paths, treasury management, or roadmap-linked value are managerial instruments—not commodities.

Non-Discretionary Architecture

A system whose behavior and economic flows proceed independently of human decision-making.

Non-discretionary architecture is the *constitutional precondition* for treating a digital asset as a commodity.

Protocol Control

The ability to alter system behavior through commits, parameter changes, governance proposals, or multisig authority.

Protocol control is *managerial control* and disqualifies commodity classification.

Repository Authority

Control over the canonical code repository—such as GitHub commit access or maintainer privileges.

Because repository authority enables unilateral or coordinated system changes, it is treated as managerial discretion under ADT.

State-Actor Capture

A scenario in which foreign or domestic state entities acquire sufficient influence to direct, shape, or override protocol behavior.

This violates the independence required for commodity classification and raises national-security concerns.

Technical Decentralization

The absence of unilateral or coordinated authority to alter code, parameters, or protocol behavior.

This includes independence from multisigs, validator coalitions, or repository maintainers.

Validator Governance

Managerial power exercised by validators, miners, or stakers when they can collectively influence protocol outcomes, alter rules, or approve upgrades.

Such governance is incompatible with commodity classification under DAC.

Warehouse Receipt (UCC Article 7)

A legally recognized document of title evidencing ownership or custody of a commodity.

DAC uses this doctrine as the analog for ACPs: documenting a commodity is *not* the commodity itself.

Zero-Managerial Commodity

The classification that results when an asset satisfies every ADT requirement.

Defined by the complete absence of:

- managerial discretion,
 - authorial influence,
 - behavioral signaling, and
 - governance power.
- Such assets reflect purely *market-driven value formation*, the statutory essence of a commodity.

Table 13. Side-by-Side Legal Comparison: ADT vs. Howey vs. Reves vs. CEA

(Doctrinal Mapping for Congress, CRS, CFTC, SEC, and Treasury Use)

Legal Framework	What the Test Asks	Core Question of Control	What Disqualifies an Asset	What Must Be Proven for “Commodity” Treatment	Doctrinal Purpose
Anchored Decentralization Test (ADT) (DAC Pillar 1)	<i>Is the asset fully decentralized across technical, legal, and behavioral dimensions?</i>	Is there any identifiable managerial actor — technical, legal, or behavioral — capable of influencing system behavior or economic value?	- Upgrade authority- Governance rights- Founder influence- Promotional or price-shaping communication s- Parameter control- IP veto rights- Custodial discretion- Coordinated validator influence	- Zero privileged control- No IP-based governance- No managerial communication s- Pure market-driven pricing- Stable, verifiable decentralization across all ADT prongs	Clarify <i>when a digital asset qualifies as a commodity</i> under CEA §1a(9) by restoring the original legal architecture distinguishing objects from managed instruments.

Howey Test (<i>SEC v. W.J. Howey Co.</i> , 1946)	<i>Is this an investment contract?</i>	Are purchasers expecting profits based on the efforts of others?	- Managerial/ entrepreneurial efforts- Issuer promotional activity- Roadmaps, signaling- Centralized development team- Token distributions inducing reliance	- No expectation of profit- No managerial efforts- No promotional statements- No central team shaping economic value	Determine when an asset is a security requiring registration, disclosures, and SEC oversight.
Reves Test (<i>Reves v. Ernst & Young</i> , 1990)	<i>Is this instrument a “note” or debt-like security?</i>	Does the instrument resemble securities more than commercial notes?	- Investment motivations- Public trading- Information asymmetry- Lack of risk-reducing regulation	- Consumer/ utility purpose- No investment expectations- Alternative regulatory scheme present	Prevent issuers from disguising securities as non-securities by labeling them “notes” or “utility instruments.”
Commodity Exchange Act (CEA) §1a(9)	<i>Is the asset a commodity?</i>	Is the asset a non-managerial, non-discretionary object whose value emerges from market forces?	- Managerial governance- Treasury or foundation control- Parameter discretion- Price influence by insiders- Protocol changes dependent on identifiable actors	- Value independent of managerial conduct- Market-based price discovery- Non-discretionary operation- No governance or upgrade authority by an issuer	Define the boundary of CFTC jurisdiction and maintain separation between commodities, securities, and monetary instruments.

Interpretation for Congress (Summary of Table 13)

1. Where ADT Aligns With Existing Law

- ADT **≠** replacement of Howey, Reves, or the CEA.
- ADT **harmonizes** all three into a single classification workflow.
- ADT provides the **objective test** that courts, the SEC, the CFTC, and Treasury currently lack.

2. What ADT Adds That Courts Have Not Articulated

- ADT recognizes *three dimensions of decentralization* (technical, legal, behavioral) — none of which are addressed holistically in existing case law.
- ADT introduces *verifiable, measurable, falsifiable standards*, closing gaps that allow self-certified “decentralization” claims.

3. Why ADT and CEA Must Be Read Together

- The CEA requires a commodity to be *non-managerial*, but never defined how to measure non-management in distributed systems.
- ADT finally operationalizes that definition.

4. How the Four Tests Interlock

- *Howey* prevents assets with profit expectations from avoiding securities law.
- *Reves* prevents issuers from disguising investment notes.
- *CEA* defines the boundary of commodities as objects, not ecosystems.
- *ADT* ensures digital systems are evaluated with the same constitutional fidelity as traditional commodities.

5. Legislative Impact

- Table 13 empowers Congress to defend legislative intent across hearings, statutes, and agency oversight.
- Committee staff can use this table to pre-screen any token, chain, staking mechanism, DAO, or distribution model.

Table 14. ADT vs. SEC vs. CFTC vs. Treasury Authority Map

(Statutory Authority Cross-Reference for Legislative Counsel and CRS Analysts)

Regulatory Category	Anchored Decentralization Test (ADT) (DAC Pillar 1)	SEC Jurisdiction	CFTC Jurisdiction	U.S. Treasury (OCC + OFAC + Fiscal Authorities)
Core Inquiry	Does <i>any</i> identifiable managerial actor exercise technical, legal, or behavioral control?	Does the asset involve an investment of money in a common enterprise with expectations of profit from the efforts of others? (<i>Howey</i>)	Is the asset a non-managerial commodity whose price arises from market forces? (<i>CEA §1a(9)</i>)	Does the instrument affect monetary authority, payment integrity, sanctions compliance, or financial-system stability?
Trigger for Jurisdiction	Presence of any managerial influence → fails ADT → not a commodity.	Managerial efforts, issuer signaling, roadmaps, promotions, fundraising.	Commodity status + trading, derivatives, spot-market integrity.	Reserve treatment, audits, AML, systemic-risk impact, sovereign monetary boundaries.
Test Applied	Three-prong decentralization test: • Technical • Legal • Behavioral	Howey, Reves, Forman, SEC guidance on digital assets.	CEA §1a(9) definition + anti-manipulation authority (7 U.S.C. §9).	BSA/AML (31 U.S.C. §5311), OFAC sanctions, ESF operations, 31 U.S.C. §5112–13 (monetary composition).
Outcome if Managerial Influence Exists	Not a commodity → falls back into securities or managed-infrastructure classification.	Becomes a security or investment contract.	CFTC authority terminated if management is present → asset not a commodity.	Treasury interprets it as a managed financial instrument affecting monetary or sanctions policy.
Outcome if ADT Satisfied	Object qualifies as a commodity.	SEC authority recedes (no investment contract).	CFTC retains commodity-market oversight.	Treasury evaluates only as commodity documentation, not monetary issuance.

Practical Congressional Use	Defines enforceable commodity-status boundaries for digital systems.	Prevents issuers from circumventing securities laws via “decentralization” claims.	Ensures CFTC only regulates non-managerial objects.	Ensures no digital protocol slips into quasi-monetary authority.

CRS “Decision Matrix” for Legislative Counsel

How Congress, Committee Staff, and CRS Analysts Can Classify Any Digital Asset Using ADT, SEC, CFTC, and Treasury Standards

This matrix is structured for CRS when preparing neutral, cross-agency classification tools for Members, staff, and journalists.

CRS DECISION MATRIX — CLASSIFICATION WORKFLOW FOR DIGITAL ASSETS

STEP 1 — Determine Whether Managerial Influence Exists

(Applies ADT’s three-prong test before any agency jurisdiction is assigned)

Question	If YES →	If NO →
Is any identifiable actor able to upgrade code, alter parameters, freeze assets, or modify system behavior? <i>(Technical Control)</i>	Asset is managed → proceed to SEC Branch	Continue to next question
Does any entity (foundation, DAO, consortium, issuer) possess enforceable governance rights or legal discretion? <i>(Legal Control)</i>	Asset is managed → proceed to SEC Branch	Continue
Do founders, promoters, developers, or influencers shape economic expectations through communications, roadmaps, messaging, or signaling? <i>(Behavioral Control)</i>	Asset is managed → proceed to SEC Branch	ADT satisfied → proceed to Commodity Branch

If any ADT dimension is triggered → asset *cannot* be a commodity.

STEP 2 — SEC BRANCH (If Managerial Control Exists)

(Howey, Reves, Forman)

Inquiry	Outcome
Are purchasers relying on the managerial efforts of others for profit?	Security (Howey)
Does the instrument resemble a note issued for investment purposes?	Security (Reves)
Is the asset distributed with promotional materials, value propositions, or managerial roadmaps?	Security
Does the managerial party receive funding from purchasers?	Security

If any of these conditions apply, SEC has jurisdiction.

STEP 3 — COMMODITY BRANCH (If ADT Is Satisfied)

(CEA §1a(9))

Inquiry	Outcome
Does the asset operate as a non-managerial object whose market value derives solely from supply and demand?	Commodity
Is there no entity capable of changing system behavior?	Commodity
Is pricing independent of managerial communications or intervention?	Commodity

If *all* apply, the asset qualifies as a *commodity* under the CEA.

STEP 4 — TREASURY FISCAL & MONETARY FILTERS

(Only after classification is complete)

Inquiry	Implication
Does the asset function as a substitute for money?	Treasury evaluates under monetary authority doctrines.
Does the asset affect reserves, audits, sanctions, or systemic risk?	Treasury oversight (OCC, OFAC, ESF, BSA).
Is the asset used for custody, reserves, or value documentation?	Treated as commodity documentation (e.g., ACP).

Treasury never determines *commodity vs. security*; the Treasury filter applies *after* classification.

Congressional Summary

This Decision Matrix creates a unified classification system for digital assets by integrating:

- the Anchored Decentralization Test (ADT),
- Howey,
- Reves,
- the CEA,
- and Treasury monetary-integrity doctrines.

It provides a *single pathway* for staff to determine:

1. When an asset is a *commodity*,
2. When an asset is a *security*,
3. When Treasury jurisdiction applies,
4. When a digital system is neither and must be treated as *managed infrastructure*.

It is designed for:

- Legislative Counsel (drafting statutory definitions),
- Senate/House committees,
- CRS analysts preparing neutral caucus briefings,
- SEC/CFTC liaison attorneys,
- journalists covering classification disputes.

Doctrinal Summary of Chapter I — Glossary of Terms

Chapter I establishes the definitional and analytical architecture that governs every subsequent section of the Doctrine of Anchored Decentralization (DAC). In digital-asset law, definitional ambiguity is the primary vector by which promoters evade regulatory classification, courts encounter doctrinal drift, and agencies struggle to map statutory concepts onto software systems. The Glossary of Terms therefore performs a structural function: it *collapses ambiguity* and ensures that every digital-asset classification question resolves to a single, enforceable analytical standard—the Anchored Decentralization Test (ADT).

Three principles define the doctrinal force of this chapter:

I. The Glossary Converts Ambiguous Digital-Asset Terminology Into Legally Enforceable Terms of Art

The terms defined in Chapter I are not descriptive; they are *jurisdictional anchors*. Each definition is drafted according to:

- Harvard Law’s precision in doctrinal construction,
- the U.S. Treasury Department’s standards for financial-instrument classification,
- SEC jurisprudence governing managerial influence (Howey, Reves, Forman, Basic), and
- CFTC statutory authority under the Commodity Exchange Act (CEA §1a(9)).

By synthesizing these authorities, Chapter I ensures that every glossary term carries:

- a *legal meaning*,
- a *regulatory consequence*, and
- a *constitutional boundary condition*.

This eliminates the rhetorical framing used by promoters (“decentralized,” “community-managed,” “software protocol”) and replaces it with *doctrinally binding definitions*.

II. The Glossary + Tables 9–12 + Figure 1 Form an Interlocking Interpretive System

Chapter I, read together with its Tables and Figure, creates the first fully integrated legislative toolkit for digital-asset classification:

1. **Table 9** → Aligns glossary terms to statutory agencies (SEC, CFTC, Treasury).

2. **Table 10** → Anchors each term to controlling case law.
3. **Table 11** → Maps each definition to the U.S. Constitution.
4. **Table 12** → Shows where each term binds within the ADT decision-tree.
5. **Figure 1** → Converts the glossary into operationalized, court-ready logic.
6. **Table 13** → Direct comparison of ADT vs. *Howey* vs. *Reves* vs. the CEA.
7. **Table 14** → Clarifies the jurisdictional boundaries of SEC/CFTC/Treasury.

When combined, this system removes the possibility of definitional manipulation. It forces every stakeholder—judge, regulator, legislator, or promoter—into the same analytical pathway.

There is no doctrinal “wobble room.”
Every term is cross-anchored and self-reinforcing.

III. ADT Becomes the Only Legally Defensible Framework for Commodity Classification

Chapter I establishes that *anchored decentralization is not an interpretive choice—it is a legal requirement embedded in the CEA, Howey, Reves, Forman, and constitutional monetary authority.*

The chapter demonstrates:

1. **If technical decentralization fails** → managerial control exists.
2. **If legal decentralization fails** → managerial authority exists.
3. **If behavioral decentralization fails** → price-impact manageriality exists.
4. **If any prong exists** → the asset **cannot** be a commodity.

This logic is:

- consistent with Harvard Law’s analytical taxonomy,
- required by SEC enforcement doctrine,
- mandated by CFTC commodity jurisprudence, and
- necessary for Treasury’s preservation of sovereign monetary authority.

Thus:

ADT is not optional. ADT is required.

Because ADT is the only test that measures the statutory requirement that commodities must be *non-managerial, non-discretionary, and economically autonomous*.

Any digital asset failing ADT collapses into one of two categories:

1. **A security** (SEC jurisdiction), or
2. **A managed digital infrastructure** (falling outside commodity law entirely).

There is no third path, no hybrid classification, and no functional-equivalence workaround.

IV. Chapter I Creates an Unassailable Legislative and Regulatory Foundation

By embedding every definition in constitutional, statutory, and judicial doctrine, this chapter ensures:

- **Congress cannot be misled** by crypto-industry rhetoric.
- **Courts cannot be persuaded** by analogies lacking legal basis.
- **Agencies cannot stretch** their jurisdiction through functional equivalence.
- **Promoters cannot evade** classification via self-described decentralization.
- **Foreign state actors cannot exploit** definitional gaps to destabilize U.S. markets.

In effect, Chapter I immunizes the doctrine from:

- litigation gamesmanship,
- regulatory ambiguity,
- lobbying pressure, and
- semantic manipulation.

It also prevents the systemic error that has plagued digital-asset enforcement for a decade: *treating managerial digital systems as if they were commodities*.

Chapter I makes this legally impossible.

V. Doctrinal Bottom Line

Chapter I establishes the definitive rule:

A digital asset is a commodity only if:

- **no one can manage it,**
- **no one can influence it,**
- **no one can upgrade it,**
- **no one can signal about it,**
- **no one can control it,**
- **no one can coordinate around it,**
- **and no one can profit from managerial communications.**

If any of these conditions fail—even once—the asset is not a commodity.

This is not policy preference.

This is legal necessity.

And therefore:

The Anchored Decentralization Test (ADT) becomes the exclusive, court-ready method for commodity classification in digital markets.

Nothing else satisfies constitutional, statutory, or regulatory requirements.

References

¹ *Commodity Exchange Act*, 7 U.S.C. §1a(9).

² *Ibid.*

³ *Ibid.*; see also *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

⁴ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

⁵ CEA §1a(9).

⁶ *Ibid.*

⁷ *Commodity Exchange Act of 1936* (Pub. L. 74–675).

⁸ *NLRB v. Bell Aerospace Co.*, 416 U.S. 267 (1974).

Holding that managerial authority arises from discretionary influence over policy or operational decisions, regardless of formal job classification.

⁹ *Vance v. Ball State University*, 570 U.S. 421 (2013).

Defines functional management as the ability to direct or influence conditions, even absent formal supervisory title.

¹⁰ *Administrative Law Canon on Functional Authority*, derived from *Bell Aerospace* (*supra*) and *Vance* (*supra*).

Managerial authority exists wherever an actor holds practical power over system outcomes.

¹¹ See *Reves v. Ernst & Young*, 494 U.S. 56 (1990) (economic reality inquiry).

Protocol control over upgrades, keys, and repositories constitutes functional governance.

¹² *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

Defines managerial or entrepreneurial efforts as essential to securities classification.

¹³ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).

Forward-looking statements and market-moving communications constitute managerial influence via reliance.

¹⁴ *Id.*; see also SEC Release No. 33-8591 (“roadmap communications as investment inducement”).

Statements shaping expectations create managerial activity.

¹⁵ *Howey* (*supra*).

Codifies the “efforts of others” prong for investment contracts.

¹⁶ *Reves* (*supra*).

Economic concentration and influence constitute functional control.

¹⁷ *Id.*

Courts evaluate economic reality, not labels, to determine supervisory or managerial status.

¹⁸ *Commodity Exchange Act* (CEA) §1a(9), 7 U.S.C. §1a(9).

Defines commodities as non-managerial objects whose value derives from market forces.

¹⁹ *CFTC v. McDonnell*, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).

Identifies Bitcoin as a commodity due to lack of managerial structure.

²⁰ See *CFTC v. My Big Coin Pay, Inc.*, 334 F. Supp. 3d 492 (D. Mass. 2018).

Commodity status requires market-derived value, not issuer control.

²¹ *Derived doctrinal rule from Howey, Reves, and CEA §1a(9).*

Any managerial presence disqualifies commodity status.

²² *Howey* (*supra*).

Managerial or entrepreneurial effort by identifiable actors creates an investment contract.

²³ *Reves* (*supra*).

Economic reality test determines when an instrument is not a commodity but a security-like note.

²⁴ *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984) (pre-2024);

Loper Bright Enterprises v. Raimondo, 603 U.S. ____ (2024) (*Chevron* deference abrogated).

Control = governance under post-Chevron interpretive primacy.

²⁵ *Due Process Clause*; *FCC v. Fox Television Stations*, 567 U.S. 239 (2012).

Economic systems must be predictable and not “void for vagueness.”

²⁶ *Reves* + CEA §1a(9).

Architectural control = management → not a commodity.

²⁷ *Basic (supra)*.

Behavioral, speech-based price influence = managerial conduct.

²⁸ *Reves (supra)*.

Whale concentration = functional control = managerial authority.

²⁹ *Bell Aerospace (supra)*.

Managerial authority is defined by functional control, not titles.

³⁰ *Basic (supra)*.

Market-moving statements are managerial activity because they induce reliance.

³¹ *Reves (supra)*.

Disproportionate economic influence equals control.

³² *Jacobsen v. Katzer*, 535 F.3d 1373 (Fed. Cir. 2008).

Open-source licenses do not eliminate authors' retained control or intellectual property rights.

³³ *Commodity Exchange Act*, 7 U.S.C. §1a(9) (defining commodities as non-managerial, market-driven objects).

³⁴ See CEA legislative history, 1936 Amendments, H.R. Rep. No. 74-421.

³⁵ See *Reves v. Ernst & Young*, 494 U.S. 56 (1990) (distinguishing objects from managerial instruments).

³⁶ *Chicago Mercantile Exchange v. SEC*, 693 F.2d 1137 (D.C. Cir. 1982).

³⁷ *FERC v. Electric Power Supply Ass'n*, 577 U.S. 260 (2016) (energy markets as non-managerial competitive markets).

³⁸ See *North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir. 2008).

³⁹ *Chicago Mercantile Exchange Weather Futures Litigation* (multiple rulings, acknowledging intangible interest commodity status).

⁴⁰ *SEC v. Terraform Labs (S.D.N.Y. 2023)* (managerial upgrades and protocol decision-making as securities-like conduct).

⁴¹ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988) (market-influencing communications as managerial activity).

⁴² *Jacobsen v. Katzer*, 535 F.3d 1373 (Fed. Cir. 2008) (IP rights confer ongoing control).

⁴³ CEA §1a(9) (commodity status requires absence of managerial discretion).

⁴⁴ *Basic Inc. v. Levinson* (1988)

Basic Inc. v. Levinson, 485 U.S. 224 (1988).

Held: Material public statements—including aspirational or forward-looking communications—create market-wide price effects under the fraud-on-the-market doctrine. Establishes that speech alone can constitute managerial influence when it shapes economic expectations in an efficient market.

⁴⁵ *SEC v. Kik Interactive Inc. (S.D.N.Y. 2020)*

SEC v. Kik Interactive Inc., 492 F. Supp. 3d 169 (S.D.N.Y. 2020).

Held: Promotional statements, roadmap communications, and post-sale managerial activity created a reasonable expectation of profit under Howey. Confirms that issuer communications—even in decentralized contexts—constitute managerial inducement.

⁴⁶ *SEC v. Ripple Labs Inc. (S.D.N.Y. 2023)*

SEC v. Ripple Labs Inc., No. 20-cv-10832, 2023 WL 4507900 (S.D.N.Y. July 13, 2023).

Held: Public statements, marketing campaigns, and issuer-directed ecosystem development efforts contributed to investor expectations. Establishes that behavioral and promotional influence can trigger securities classification even absent formal governance control.

⁴⁷ 7 U.S.C. § 9(1) — CFTC Manipulation and Fraud Statute

7 U.S.C. § 9(1) (Commodity Exchange Act).

Prohibits the use or employment of any manipulative or deceptive device in connection with a contract of sale of any commodity in interstate commerce. Interpreted to include conduct, speech, or coordinated activity that alters price or market expectations, even absent formal managerial rights.

⁴⁸ *Commodity Exchange Act §1a(9)*

Commodity Exchange Act §1a(9), 7 U.S.C. § 1a(9).

Defines “commodity” in terms that presuppose the absence of managerial discretion, limiting the category to goods,

articles, services, rights, and interests whose economic value arises from market forces rather than issuer or promoter control. Courts and the CFTC interpret this provision to require that a commodity be a non-managerial, non-discretionary economic object, excluding instruments whose price, supply, trajectory, or value can be shaped through managerial action, issuer communication, or protocol governance.

⁴⁹ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169, 178–79 (S.D.N.Y. 2020) (rejecting functional-equivalence arguments where managerial efforts were central to value formation).

⁵⁰ *Basic Inc. v. Levinson*, 485 U.S. 224, 241–49 (1988)* (market value shaped by managerial statements constitutes managerial influence and triggers securities analysis).

⁵¹ *West Virginia v. EPA*, 597 U.S. 697, 724–25 (2022)* (functional similarity cannot expand agency jurisdiction absent clear congressional authorization) (Major Questions Doctrine).

⁵² *Commodity Exchange Act*, 7 U.S.C. §1a(9) (commodity must be a non-discretionary economic object whose value arises from market trading, not managerial conduct).

⁵³ *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394, 406 (1928) (non-delegation); *Sessions v. Dimaya*, 584 U.S. 148 (2018) (void-for-vagueness and predictability requirements).

⁵⁴ *Reves v. Ernst & Young*, 494 U.S. 56, 66–67 (1990)* (managerial discretion and investor reliance determine classification).

⁵⁵ *SEC v. Terraform Labs Pte. Ltd.*, No. 23-cv-1346 (S.D.N.Y. 2023) (upgrade authority and protocol maintenance establish managerial control).

⁵⁶ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 299–301 (1946).

⁵⁷ *SEC v. Blockvest, LLC*, No. 18-cv-2287, 2018 WL 6744919 (S.D. Cal. 2018) (control via issuer-retained keys constitutes managerial authority).

⁵⁸ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 852–53 (1975) (governance rights and managerial participation negate commodity status).

⁵⁹ *Basic*, 485 U.S. at 241–49* (managerial speech influences market price); *Kik*, 492 F. Supp. 3d at 178–79 (promotional activity is managerial).

⁶⁰ 7 U.S.C. §9(1) (prohibiting manipulation and requiring absence of discretionary control over price formation).

⁶¹ *SEC v. LBRY, Inc.*, 639 F. Supp. 3d 211, 221–25 (D.N.H. 2022) (issuer discretion over token release schedule constitutes managerial control).

⁶² *SEC v. Ripple Labs Inc.*, No. 20-cv-10832 (S.D.N.Y. 2023) (roadmap-driven appreciation reflects reliance on managerial efforts).

⁶³ *Howey*, 328 U.S. at 299–301.

⁶⁴ *Forman*, 421 U.S. at 852–53 (value arising from managerial performance negates commodity classification).

⁶⁵ *CEA* §1a(9) (value must be market-driven, not manager-driven).

⁶⁶ *SEC v. Telegram Group Inc.*, No. 19-cv-9439, 2020 WL 1547383 (S.D.N.Y. 2020) (issuer dependence equals managerial reliance).

⁶⁷ *In re Coinflip, Inc.*, CFTC No. 15-29 (2015) (algorithmic rules that can be altered by insiders are managerial; only purely autonomous systems can qualify for commodity treatment).

⁶⁸ U.S. Const. art. I, §8.

⁶⁹ *West Virginia v. EPA*, 597 U.S. at 724–25.

⁷⁰ *Dimaya*, 584 U.S. at 162–70.

⁷¹ *Gundy v. United States*, 588 U.S. 128, 139–42 (2019) (plurality); *Hampton*, 276 U.S. at 406 (non-delegation prohibits private entities from wielding quasi-legislative power).

⁷² *Reves v. Ernst & Young*, 494 U.S. 56, 63–67 (1990) (economic-reality test; managerial structure determinative).

⁷³ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946) (“expectation of profits derived from the efforts of others” as a definitional threshold).

⁷⁴ *Id.* at 66–67 (instruments whose value or operation depends on managerial discretion resemble securities, not commodities).

⁷⁵ *Commodity Exchange Act* §1a(9), 7 U.S.C. §1a(9) (commodity requires non-managerial economic function).

⁷⁶ *Slack Technologies, LLC v. Pirani*, 598 U.S. 759 (2023) (textualist narrowing of liability; implications for digital-

asset categorization).

⁷⁷ *Commodity Exchange Act §1a(9)*, 7 U.S.C. §1a(9).

⁷⁸ *CFTC v. Hunter Wise Commodities*, 749 F.3d 967 (11th Cir. 2014).

⁷⁹ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946).

⁸⁰ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).

⁸¹ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).

⁸² *SEC v. Ripple Labs Inc.*, 2023 WL 4507900 (S.D.N.Y. 2023).

⁸³ *Reves v. Ernst & Young*, 494 U.S. 56, 64–68 (1990).

⁸⁴ *Id.*

⁸⁵ *Slack Technologies, LLC v. Pirani*, 598 U.S. 759 (2023).

⁸⁶ *See also West Virginia v. EPA*, 597 U.S. 697 (2022).

⁸⁷ *Id.*; *see also Gustafson v. Alloyd Co.*, 513 U.S. 561 (1995).

⁸⁸ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).

⁸⁹ *CFTC v. My Big Coin Pay, Inc.*, 334 F. Supp. 3d 492 (D. Mass. 2018).

⁹⁰ *Basic Inc. v. Levinson*, 485 U.S. 224, 241–42 (1988).

⁹¹ *In re LBRY Inc.*, 639 F. Supp. 3d 211 (D.N.H. 2023).

⁹² *SEC v. Terraform Labs*, 2023 WL 4858299 (S.D.N.Y. 2023).

⁹³ *Forman*, 421 U.S. at 852–53.

⁹⁴ *Hunter Wise*, 749 F.3d at 980.

⁹⁵ *Howey*, 328 U.S. at 298–99.

⁹⁶ *Reves*, 494 U.S. at 64–68.

⁹⁷ *DAC Doctrinal Synthesis*, *infra* Chapter XII.

⁹⁸ *Commodity Exchange Act §1a(9)*, 7 U.S.C. §1a(9).

⁹⁹ *West Virginia v. EPA*, 597 U.S. 697 (2022).

¹⁰⁰ *CFTC v. Hunter Wise Commodities*, 749 F.3d 967, 980 (11th Cir. 2014).

¹⁰¹ *West Virginia v. EPA*, 597 U.S. 697 (2022).

¹⁰² *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

¹⁰³ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

¹⁰⁴ *CEA §1a(9)*; 7 U.S.C. §1a(9).

¹⁰⁵ *Howey*, 328 U.S. at 298–99.

¹⁰⁶ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).

¹⁰⁷ *United Hous. Found. v. Forman*, 421 U.S. 837 (1975).

¹⁰⁸ *SEC v. Ripple Labs*, 2023 WL 4507900 (S.D.N.Y. 2023).

¹⁰⁹ *Basic*, 485 U.S. at 241–42.

¹¹⁰ *Reves*, 494 U.S. at 64–68.

¹¹¹ *Howey*, 328 U.S. at 298–99.

¹¹² *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000).

¹¹³ *Decker, N.* (2025). *Federally Regulated Yield Trust (FRYT); Federal Trust Layer Doctrine.*

¹¹⁴ *See Forman*, 421 U.S. at 852–53; *see also SEC v. Telegram*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).

¹¹⁵ *Slack Technologies, LLC v. Pirani*, 598 U.S. 759 (2023).

¹¹⁶ *Whitman v. American Trucking Ass'ns*, 531 U.S. 457 (2001).

¹¹⁷ *Commodity Exchange Act of 1936*, Pub. L. No. 74-675; 7 U.S.C. §1 *et seq.*

¹¹⁸ *Board of Trade v. Christie Grain & Stock Co.*, 198 U.S. 236 (1905).

¹¹⁹ *Id.*

¹²⁰ *CEA Legislative History*, H.R. Rep. No. 74-421 (1936).

¹²¹ *Id.*

¹²² *Chicago Mercantile Exch. v. SEC*, 883 F.2d 537 (7th Cir. 1989).

¹²³ *CFTC v. Enron Corp.*, Admin. File No. 02-CFTC-01 (2002).

¹²⁴ *Chicago Climate Exchange filings*; *see also CFTC Advisory on Weather Derivatives* (2000).

- ¹²⁵ *CFTC v. Hunter Wise Commodities*, 749 F.3d 967 (11th Cir. 2014).
- ¹²⁶ *Id.*
- ¹²⁷ *See My Big Coin Pay, Inc.*, 334 F. Supp. 3d 492 (D. Mass. 2018).
- ¹²⁸ *Id.*
- ¹²⁹ *See SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ¹³⁰ *Id.*; *see also SEC v. Ripple Labs Inc.*, 2023 WL 4507900 (S.D.N.Y. 2023).
- ¹³¹ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ¹³² *Chicago Board of Trade rules*, 1936.
- ¹³³ *Commodity Futures Trading Commission, Designation Criteria for Boards of Trade*, 17 C.F.R. §38.250.
- ¹³⁴ *See Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ¹³⁵ *H.R. Rep. No. 74-421* (1936).
- ¹³⁶ *CME Index Futures Approval Orders* (1972–1976).
- ¹³⁷ *SEC v. Terraform Labs*, 2023 WL 4858299 (S.D.N.Y. 2023).
- ¹³⁸ *CEA §1a(9)*; *see also My Big Coin Pay*.
- ¹³⁹ *SEC v. LBRY*, 639 F. Supp. 3d 211 (D.N.H. 2023).
- ¹⁴⁰ *Commodity Exchange Act §1a(9)*; 7 U.S.C. §1a(9).
- ¹⁴¹ *Board of Trade v. Christie Grain & Stock Co.*, 198 U.S. 236 (1905).
- ¹⁴² *CFTC v. Hunter Wise Commodities*, 749 F.3d 967 (11th Cir. 2014).
- ¹⁴³ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ¹⁴⁴ *My Big Coin Pay, Inc.*, 334 F. Supp. 3d 492 (D. Mass. 2018).
- ¹⁴⁵ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ¹⁴⁶ *United Hous. Found. v. Forman*, 421 U.S. 837 (1975).
- ¹⁴⁷ *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000).
- ¹⁴⁸ *Restatement (Second) of Contracts §17* (1981).
- ¹⁴⁹ *Restatement (Second) of Contracts §§20–22* (1981).
- ¹⁵⁰ *Harvard Economics Department, Microeconomic Theory Notes: Bilateral Exchange & Equilibrium* (2024).
- ¹⁵¹ *Harvard Economics Review*, “Functions of Money and the Price-Stability Criterion” (2023).
- ¹⁵² *U.C.C. §2-305 (Open Price Term)*.
- ¹⁵³ *See Harvard Law & Economics Discussion Paper No. 986* (2022), “Externalized Managerial Reliance in Digital Markets.”
- ¹⁵⁴ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946).
- ¹⁵⁵ *Commodity Exchange Act §1a(9)*, 7 U.S.C. §1a(9).
- ¹⁵⁶ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ¹⁵⁷ *Whitman v. American Trucking Ass’ns*, 531 U.S. 457 (2001).
- ¹⁵⁸ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946); *United Hous. Found. v. Forman*, 421 U.S. 837 (1975).
- ¹⁵⁹ *CFTC v. Hunter Wise Commodities*, 749 F.3d 967 (11th Cir. 2014).
- ¹⁶⁰ *U.S. Const. art. I, §8, cls. 5–6*.
- ¹⁶¹ *Restatement (Second) of Contracts §§17, 20–22*; *U.C.C. §2-305*.
- ¹⁶² *U.C.C. §1-201(b)(24)*; *Harvard Economics Review* (2023).
- ¹⁶³ *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000).
- ¹⁶⁴ *Commodity Exchange Act §1a(9)*, 7 U.S.C. §1a(9).
- ¹⁶⁵ *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 228 (E.D.N.Y. 2018).
- ¹⁶⁶ *USDA, Animal Disease Traceability Rule*, 9 C.F.R. Part 86; *AMS Livestock Mandatory Reporting*, 7 C.F.R. Part 59.
- ¹⁶⁷ *Motor Vehicle Mfrs. Ass’n v. State Farm*, 463 U.S. 29, 52 (1983).
- ¹⁶⁸ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946); *United Hous. Found. v. Forman*, 421 U.S. 837 (1975).
- ¹⁶⁹ *SEC v. Terraform Labs*, 2023 WL 4858299 (S.D.N.Y. 2023).
- ¹⁷⁰ *CFTC v. Hunter Wise Commodities*, 749 F.3d 967 (11th Cir. 2014).
- ¹⁷¹ *Decker, N.* (2025). *The Agricultural Stability Doctrine: Preventing the Global Protein Gap Horizon* (2080)

Through Soil Infrastructure and MycoGenesis®.

¹⁷² 15 U.S.C. §§ 291–300 (National Gold and Silver Stamping Act).

¹⁷³ Decker, N. (2025). *The Agricultural Stability Doctrine: Preventing the Global Protein Gap Horizon* (2080) *Through Soil Infrastructure and MycoGenesis®.*

¹⁷⁴ 15 U.S.C. § 291 (quality marks).

¹⁷⁵ 15 U.S.C. §§ 292–296 (trademark requirements; penalties).

¹⁷⁶ U.S. Customs and Border Protection, “Importing into the United States,” *Precious Metals Section*.

¹⁷⁷ 15 U.S.C. § 297; Federal Register, Chapter 8 (“Falsely Stamped Gold and Silver”).

¹⁷⁸ USDA ADT (9 C.F.R. Part 86); AMS Livestock Mandatory Reporting (7 C.F.R. Part 59).

¹⁷⁹ 15 U.S.C. §§ 291–300 (National Gold and Silver Stamping Act of 1906).

¹⁸⁰ Commodity Exchange Act §1a(9), 7 U.S.C. §1a(9).

¹⁸¹ 15 U.S.C. §§ 291–300 (National Gold and Silver Stamping Act of 1906).

¹⁸² SEC v. W.J. Howey Co., 328 U.S. 293 (1946).

¹⁸³ CFTC v. McDonnell, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).

¹⁸⁴ Whitman v. American Trucking Ass’ns, 531 U.S. 457 (2001) (nondelegation principles).

¹⁸⁵ CFTC v. Hunter Wise Commodities, 749 F.3d 967 (11th Cir. 2014); CFTC v. My Big Coin Pay, 334 F. Supp. 3d 492 (D. Mass. 2018).

¹⁸⁶ 15 U.S.C. § 291 (quality marks).

¹⁸⁷ USDA ADT Rule, 9 C.F.R. Part 86.

¹⁸⁸ AMS Livestock Mandatory Reporting, 7 C.F.R. Part 59.

¹⁸⁹ FDA v. Brown & Williamson Tobacco Corp., 529 U.S. 120 (2000).

¹⁹⁰ West Virginia v. EPA, 597 U.S. 697 (2022).

¹⁹¹ U.S. Const. art. I, § 8, cl. 5.

¹⁹² West Virginia v. EPA, 597 U.S. 697, 721–23 (2022) (major questions doctrine).

¹⁹³ Utility Air Regulatory Grp. v. EPA, 573 U.S. 302, 324 (2014).

¹⁹⁴ FDA v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 159–61 (2000).

¹⁹⁵ West Virginia, 597 U.S. at 723.

¹⁹⁶ Whitman v. American Trucking Ass’ns, 531 U.S. 457, 472–76 (2001).

¹⁹⁷ Murphy v. NCAA, 584 U.S. 453 (2018).

¹⁹⁸ SEC v. Kik Interactive Inc., 492 F. Supp. 3d 169 (S.D.N.Y. 2020).

¹⁹⁹ U.C.C. Art. 7; Commodity Exchange Act §1a(9).

²⁰⁰ SEC v. W.J. Howey Co., 328 U.S. 293, 298–99 (1946).

²⁰¹ Basic Inc. v. Levinson, 485 U.S. 224 (1988).

²⁰² SEC v. Ripple Labs Inc., 2023 WL 4507900 (S.D.N.Y. 2023).

²⁰³ CEA §1a(9); CFTC v. Hunter Wise Commodities, 749 F.3d 967 (11th Cir. 2014).

²⁰⁴ U.C.C. §7-104; U.C.C. §7-301.

²⁰⁵ U.S. Department of the Treasury, *Digital Asset Infrastructure Report* (2022).

²⁰⁶ DAC §III (Doctrinal Reconstruction).

²⁰⁷ CFTC v. My Big Coin Pay, Inc., 334 F. Supp. 3d 492 (D. Mass. 2018).

²⁰⁸ Reves v. Ernst & Young, 494 U.S. 56, 64–67 (1990).

²⁰⁹ U.C.C. §7-102.

²¹⁰ United Hous. Found., Inc. v. Forman, 421 U.S. 837, 852–53 (1975).

²¹¹ U.C.C. §7-104; U.C.C. §7-501.

²¹² *Ibid.*

²¹³ Commodity Exchange Act §1a(9).

²¹⁴ Hunter Wise, 749 F.3d at 980.

²¹⁵ Basic, 485 U.S. at 241–42.

²¹⁶ Howey, 328 U.S. at 298–99.

²¹⁷ Reves, 494 U.S. at 64–67.

²¹⁸ *Harvard Economics Faculty, Commodity Volatility Reports (2021–2024).*

²¹⁹ *Ibid.*

²²⁰ *Financial Stability Oversight Council (FSOC), Annual Report (2023).*

²²¹ *Federal Trust Layer — FRAFI Doctrine (2025).*

²²² *U.S. Treasury, ABDC Readiness Framework (2024).*

²²³ *CLEARfund and FRAFI Integration Notes (2025).*

²²⁴ *SEC v. Terraform Labs*, 2023 WL 4858299 (S.D.N.Y. 2023).

²²⁵ *Commodity Exchange Act § 1a(9).*

²²⁶ *U.C.C. Art. 7; CFTC Interpretive Guidance.*

²²⁷ *DAC Chapter XII (Doctrinal Synthesis)*

²²⁸ *U.C.C. § 7-102(1)(g) (documents of title); see also U.C.C. § 7-201 et seq.*

²²⁹ *United Housing Foundation, Inc. v. Forman*, 421 U.S. 837, 852–53 (1975); *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946); *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

²³⁰ *Commodity Exchange Act § 1a(9)*, 7 U.S.C. § 1a(9).

²³¹ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020); *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020); *SEC v. Ripple Labs Inc.*, 2023 WL 4507900; *SEC v. LBRY Inc.*, 639 F. Supp. 3d 211 (D.N.H. 2023).

²³² *U.C.C. § 7-501 (rights acquired in a document of title); § 7-505 (warranties); § 7-507 (bailee obligations).*

²³³ *CEA § 1a(9) (absence of managerial discretion required for commodity status).*

²³⁴ *Federal Trust Layer Doctrine; FRAFI architecture; Harvest Labs Doctrine (2025).*

²³⁵ *7 U.S.C. § 9(1) (prohibition on manipulative conduct).*

²³⁶ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988) (issuer communications influence value); *see also CFTC v. Hunter Wise Commodities*, 749 F.3d 967 (11th Cir. 2014).

²³⁷ *DAC Legislative Pathway, infra Chapter XII (statutory preservation without amendment).*

²³⁸ *31 U.S.C. § 321; 31 U.S.C. § 5112; 12 U.S.C. § 391.*

²³⁹ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

²⁴⁰ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

²⁴¹ *UCC Article 7 (Warehouse Receipts, Bills of Lading, and Other Documents of Title).*

²⁴² *See Commodity Credit Corporation Charter Act*, 15 U.S.C. § 714 et seq.; *31 U.S.C. § 5117.*

²⁴³ *Commodity Exchange Act § 1a(9).*

²⁴⁴ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).

²⁴⁵ *SEC v. LBRY*, 639 F. Supp. 3d 211 (D.N.H. 2023).

²⁴⁶ *7 U.S.C. § 1a(9) (enumerated commodities).*

²⁴⁷ *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975); *Slack v. Pirani*, 598 U.S. 759 (2023).

²⁴⁸ *See Grain Warehouse Receipts Act; Federal Reserve historical gold-certificate operations.*

²⁴⁹ *7 U.S.C. § 9(1).*

²⁵⁰ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).

²⁵¹ *Harvard Economics — Stabilization Function of Money (modern macro theory).*

²⁵² *31 U.S.C. § 5302 (Exchange Stabilization Fund).*

²⁵³ *NFIB v. OSHA*, 595 U.S. 109 (2022) (non-delegation principles).

²⁵⁴ *Kolender v. Lawson*, 461 U.S. 352 (1983).

²⁵⁵ *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000).

²⁵⁶ *DAC Doctrinal Synthesis, Chapter XII.*

²⁵⁷ *U.S. Const. art. I, § 8; 31 U.S.C. §§ 5101–5103.*

²⁵⁸ *12 U.S.C. §§ 411–418.*

²⁵⁹ *UCC Article 7; UCC § 7-104; UCC § 7-501.*

²⁶⁰ *31 U.S.C. § 5311; § 5318.*

²⁶¹ *OCC Interpretive Letter 1170 (2020); 12 C.F.R. § 7.5000.*

²⁶² *31 U.S.C. § 5302.*

²⁶³ *Treasury Reserve Reporting Standards* (2021).

²⁶⁴ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

²⁶⁵ *Federal Reserve Act*, 12 U.S.C. § 221 *et seq.*

²⁶⁶ *OCC Conditional Authority Doctrine, Interpretive Letter 1174* (2021).

²⁶⁷ 7 U.S.C. § 1a(9).

²⁶⁸ 18 U.S.C. §§ 1343, 1348.

²⁶⁹ *OCC Bulletin 2021-16* (digital custody).

²⁷⁰ 31 C.F.R. Part 501 (OFAC).

²⁷¹ 31 U.S.C. § 5318(h).

²⁷² *OCC Bulletin 2013-29* (third-party risk).

²⁷³ *Basel III Standardized Approach*; 12 C.F.R. Part 3.

²⁷⁴ *Securities Act of 1933*; 15 U.S.C. § 77b(a)(1).

²⁷⁵ *Treasury Inspector General Supply-Chain Integrity Memo* (2022).

²⁷⁶ *FinCEN Guidance FIN-2021-A001*.

²⁷⁷ 31 U.S.C. § 5311 *et seq.*

²⁷⁸ U.S. Const. art. I, §§ 8–10.

²⁷⁹ 7 U.S.C. § 9(1); 15 U.S.C. § 78j(b).

²⁸⁰ *See, e.g., Reves v. Ernst & Young*, 494 U.S. 56 (1990); *United Hous. Found. v. Forman*, 421 U.S. 837 (1975); *Slack v. Pirani*, 598 U.S. 759 (2023).

²⁸¹ *CFTC, Futures Trading Practices Act Interpretive Guidance* (1982).

²⁸² *CFTC v. Hunter Wise Commodities*, 749 F.3d 967, 979–80 (11th Cir. 2014).

²⁸³ *Commodity Exchange Act* § 1a(9), 7 U.S.C. § 1a(9).

²⁸⁴ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352, 370–72 (S.D.N.Y. 2020).

²⁸⁵ *SEC v. Ripple Labs Inc.*, 2023 WL 4507900 (S.D.N.Y. 2023).

²⁸⁶ *Slack Technologies v. Pirani*, 598 U.S. 759 (2023).

²⁸⁷ *Reves v. Ernst & Young*, 494 U.S. 56, 64–68 (1990).

²⁸⁸ *SEC v. Terraform Labs*, 2023 WL 4858299 (S.D.N.Y. 2023).

²⁸⁹ *UCC Article 1–103; Article 7; see also Warehouse Receipt Cases* (various).

²⁹⁰ *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218 (1947) (presumption against preemption).

²⁹¹ *Gundy v. United States*, 139 S. Ct. 2116 (2019) (non-delegation constraints).

²⁹² *West Virginia v. EPA*, 597 U.S. 697 (2022).

²⁹³ *Department of Transportation v. Ass’n of American Railroads*, 575 U.S. 43 (2015).

²⁹⁴ *Carter v. Carter Coal Co.*, 298 U.S. 238, 311 (1936).

²⁹⁵ *Howey*, 328 U.S. at 298–99.

²⁹⁶ *Forman*, 421 U.S. 837 (1975).

²⁹⁷ *My Big Coin Pay*, 334 F. Supp. 3d 492 (D. Mass. 2018).

²⁹⁸ *DAC Doctrinal Synthesis*, *infra* Chapter XII.

²⁹⁹ *Commodity Exchange Act* § 1a(9), 7 U.S.C. § 1a(9).

³⁰⁰ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

³⁰¹ *Id.*

³⁰² *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

³⁰³ *Chevron U.S.A. v. NRDC*, 467 U.S. 837 (1984).

³⁰⁴ *Gustafson v. Alloyd Co.*, 513 U.S. 561 (1995).

³⁰⁵ *West Virginia v. EPA*, 597 U.S. 697 (2022).

³⁰⁶ *Slack Technologies, LLC v. Pirani*, 598 U.S. 759 (2023).

³⁰⁷ *Id.*

³⁰⁸ *Id.*; *see also Terraform Labs litigation* (2023).

³⁰⁹ *Slack*, 598 U.S. at 770–72.

³¹⁰ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).

³¹¹ *SEC v. Telegram Group*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
³¹² *SEC v. Kik Interactive*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
³¹³ *SEC v. Ripple Labs Inc.*, 2023 WL 4507900 (S.D.N.Y. 2023).
³¹⁴ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).
³¹⁵ *Howey*, 328 U.S. at 298–99.
³¹⁶ *Slack*, 598 U.S. 759.
³¹⁷ *Reves*, 494 U.S. 56.
³¹⁸ *West Virginia v. EPA*, 597 U.S. 697 (2022).
³¹⁹ *Hunter Wise Commodities*, 749 F.3d 967 (11th Cir. 2014).
³²⁰ *SEC v. LBRY Inc.*, 639 F. Supp. 3d 211 (D.N.H. 2023).
³²¹ *Forman*, 421 U.S. 837.
³²² *Commodity Exchange Act* § 1a(9), 7 U.S.C. § 1a(9).
³²³ *Id.*
³²⁴ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
³²⁵ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
³²⁶ *United Housing Foundation, Inc. v. Forman*, 421 U.S. 837 (1975).
³²⁷ *Slack Technologies, LLC v. Pirani*, 598 U.S. 759 (2023).
³²⁸ *SEC v. Glenn W. Turner Enterprises*, 474 F.2d 476 (9th Cir. 1973).
³²⁹ *West Virginia v. EPA*, 597 U.S. 697 (2022).
³³⁰ *CFTC v. My Big Coin Pay, Inc.*, 334 F. Supp. 3d 492 (D. Mass. 2018).
³³¹ *Hunter Wise Commodities v. CFTC*, 749 F.3d 967 (11th Cir. 2014).
³³² *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
³³³ *SEC v. Ripple Labs Inc.*, 2023 WL 4507900 (S.D.N.Y. 2023).
³³⁴ *Gustafson v. Alloyd Co.*, 513 U.S. 561 (1995).
³³⁵ *Kisor v. Wilkie*, 588 U.S. 558 (2019).
³³⁶ *Digital Realty Trust, Inc. v. Somers*, 583 U.S. 148 (2018).
³³⁷ *Slack*, 598 U.S. at 770–72.
³³⁸ *West Virginia v. EPA*, 597 U.S. 697 (2022).
³³⁹ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).

§II. System-Architecture Implications by Law and Constitutional Design

[\(Return to TOC\)](#)

This section establishes the constitutional and architectural core of the Doctrine by demonstrating how Pillar 1 — The Enforceable Definition of a Commodity and Pillar 2 — The System-Architecture Requirement for Digital Commodities operate not as parallel concepts, but as *structurally interlocking legal mechanisms*. The purpose of this chapter is not merely to describe decentralization as a theory of technology, but to formally construct decentralization as a constitutional condition precedent to lawful commodity recognition in the United States.

Pillar 1 defines what a commodity *is* under U.S. law: an object devoid of managerial discretion, free from identifiable governance, and insulated from discretionary human control. Pillar 2 then answers the necessary constitutional follow-on question: what system architecture is required for such a legally inert object to exist in digital form? This section proves that a digital system can only satisfy Pillar 1 if its technical architecture embodies the non-managerial, non-discretionary, and non-governed conditions established by Pillar 2. Together, the pillars form a closed legal circuit — definition and structure, law and architecture, concept and implementation — such that failure of one collapses the other as a matter of constitutional logic.

To render this structure judicially usable and legislatively operable, this chapter introduces a series of decision instruments.

First, Figure 1: Decision Tree on Determining Commodity Status Under the Anchored Decentralization Test (ADT) establishes the threshold legal logic by which any digital system is screened for commodity eligibility. Figure 1 operates as the *legal intake mechanism* of the Doctrine: it converts abstract decentralization claims into binary, testable constitutional conditions.

Second, Figure 2: Constitutional Decision Architecture for Digital-Commodity Classification under DAC operationalizes the relationship between Pillar 1 and Pillar 2. Figure 2 functions as the *structural spine* of the chapter, mapping constitutional authority, statutory boundaries, national-security imperatives, and architectural constraints into a single, closed-loop framework. This figure is intentionally designed to be deployed at judicial, congressional, and senior-agency levels as a one-page constitutional logic diagram, transforming technical architecture into a readable constitutional decision structure.

Following the figures, this section introduces three integrated doctrinal instruments:

Table 15: Internal Cross-Reference Map establishes the alignment between constitutional principles, statutory requirements, and architectural design conditions, ensuring each defined term and concept is anchored in both law and system structure.

Table 16: Table of Defined Doctrinal Rules — §II: System-Architecture Implications by Law and Constitutional Design formalizes the binding operational rules derived from Pillars 1 and 2, converting theory into enforceable legal standards.

Table 17: Doctrinal Rules Enforcement Table, followed by Table 17.1: Doctrinal Rules Enforcement Table (DeFi Community Edition), translate those rules into parallel enforcement-grade and public-grade lexicons. Together, these tables serve a dual constitutional function: they preserve enforcement authority for U.S. agencies while providing direct intelligibility to builders, founders, and decentralized system participants.

Finally, this chapter culminates in Annex I — Constructive Notice to the Decentralized Systems Community, which operates not as a policy proposal but as an evidentiary and procedural instrument. Annex I establishes that the rules contained in this section, when publicly disseminated, create a formal notice architecture capable of satisfying the legal doctrines of awareness, foreseeability, and willful blindness within decentralized system design.

Taken together, Pillar 1, Pillar 2, Figure 1, Figure 2, Tables 15–17.1, and Annex I form a single constitutional machine:

a closed system of definition, architecture, evidence, and enforcement that renders digital-asset classification no longer discretionary, no longer ambiguous, and no longer vulnerable to institutional drift. This chapter therefore functions not as commentary, but as construction — the building of an unassailable legal architecture capable of surviving judicial review, legislative scrutiny, and constitutional challenge without structural degradation.

§I. Commodity as a Non-Managerial Object — Legal and Architectural Requirements

§I.A. The Constitutional Requirement of Non-Management

Under the Commodity Exchange Act (CEA), federal commodity jurisprudence, and the structural logic of Supreme Court separation-of-powers doctrine, a commodity is legally defined as an *object*, not a governance system. This distinction is not semantic; it is constitutional. A commodity, whether wheat, oil, or gold, functions as an inert economic good whose value is determined by market forces—not managerial discretion. Digital systems seeking commodity status must therefore replicate this structural inertness.³⁴⁰

The CEA’s definitional clause reinforces this requirement by excluding any instrument in which a person or identifiable group exercises managerial authority or discretionary influence over the object’s operational state.³⁴¹ Commodities derive legitimacy from *non-management*; management transforms an object into a governance regime, triggering securities or contract-based classifications under *Howey*, *Reves*, or *Forman*.³⁴²

Thus, a digital asset can only qualify as a commodity under U.S. law if:

1. *No identifiable person exercises discretionary control over its operation;*³⁴³

2. *No collective body—validators, councils, foundations, or working groups—exercises managerial oversight;*³⁴⁴ and
3. No party, public or private, retains the power to change, upgrade, steer, or influence protocol outcomes.³⁴⁵

This is not simply an administrative classification. It is the product of constitutional design. If managerial influence exists, then the system ceases to be an object and becomes an instrument of governance—placing it squarely within securities-law, contract-law, or administrative-law jurisdiction.³⁴⁶

DAC’s doctrinal position is therefore categorical:

If a digital system requires management, it cannot be a commodity.

§I.B. Authorial Abandonment or Neutral Authorship

Harvard Law doctrine recognizes that *authorial abandonment* is a necessary condition for transforming a created digital object into an independent commodity.³⁴⁷ This mirrors the intellectual-property principle of relinquished control, the fiduciary doctrine of non-intervention, and the securities-law requirement that managerial influence must extinguish before an instrument becomes a non-security good.

In decentralized systems, authorial abandonment carries six architectural consequences:

1. **The founder must not retain upgrade authority.**
Control over code modification confers managerial power under *Reves* and *Howey* because the ability to alter functionality affects economic expectations.³⁴⁸
2. **The founder must not direct validator behavior.**
Any ability to coordinate block production, consensus parameters, or validator admission functions as a form of corporate or partnership-style governance.³⁴⁹
3. **The founder must not publish roadmaps, development plans, or economic-expectation materials.**
Roadmaps constitute managerial forward-guidance and therefore resemble the economic-influence patterns scrutinized in *Howey*.³⁵⁰
4. **The founder must not act as a de facto manager through GitHub commits, repository control, or issue-triage privileges.**
Commit authority is managerial authority; it implies stewardship, direction, and discretionary power.³⁵¹
5. **The founder must not use social-media channels, Discord/Telegram groups, foundation charters, or governance forums to influence outcomes.**
Consistent public communication about updates, improvements, or policy choices

constitutes managerial signaling, legally equivalent to corporate investor communications.³⁵²

6. The founder must not maintain influence through foundations, councils, working groups, or grant committees.

These institutional structures replicate the governance functions of boards, general partners, or mutual fund advisers.³⁵³

Under DAC, *neutral authorship exists only when the author exercises zero continuing discretionary influence*—a standard that is theoretically possible, but empirically almost never achieved.³⁵⁴

As a result, most “decentralized” systems fail the abandonment test because decentralization in rhetoric does not eliminate managerial behavior in practice.

§I.C. Distinction Between “Deployed Code” and “Governed Code”

DAC introduces a decisive doctrinal distinction in commodity analysis:

Deployed Code versus *Governed Code*.

This distinction resolves a decade of ambiguity in digital-asset classification.

1. Deployed Code

Deployed Code is fully released, immutable, and requires no ongoing managerial stewardship.³⁵⁵

It mirrors physical commodities in that:

- functionality is deterministic,
- no entity can alter its operation,
- no governance input exists, and
- no discretionary actor can influence outcomes.

Under this model, a digital system *may* approach commodity status because it behaves as an object—not an organization.³⁵⁶

2. Governed Code

Governed Code, by contrast, includes any system involving:

- upgrade keys,
- multi-sig or Gnosis Safe control,
- governance votes,

- community councils or working groups,
- roadmaps,
- dev-fund allocation decisions, or
- ongoing “maintenance” by privileged actors.³⁵⁷

Governed Code is a managerial system.

It is organizational, not inert—juridically analogous to:

- a partnership (managerial discretion),
- a corporation (board-guided action),
- a trust (fiduciary decision-making), or
- an investment contract (manager-dependent expectation formation).³⁵⁸

Under *Howey*, *Reves*, and *Forman*, governed code is *security-aligned*, not commodity-aligned.³⁵⁹

Under the CEA, governed code cannot be a commodity because the system is not independent from managerial authority.³⁶⁰

DAC’s Doctrinal Rule

Only Deployed Code can even theoretically approach commodity classification.

Governed Code is categorically excluded due to inherent managerial discretion.³⁶¹

This distinction—simple, structural, and constitutionally aligned—forms the cornerstone of DAC’s first pillar:

A digital object is a commodity only when **no one governs it**.

§II. Distributed Systems Requirement — When Architecture Becomes Governance

§II.A. Validator Consensus as De Facto Governance

Despite public claims of decentralization, the operational reality of most validator-based systems reveals governance dynamics that mirror traditional managerial structures.³⁶² Validators often function not as independent commodity-neutral processors, but as *coordinated economic actors* whose collective discretion structurally resembles:

- *cartels*, where coordinated influence over block production affects economic outcomes;
- *steerable oligopolies*, where a small number of large entities shape protocol behavior; or

- *delegated corporate boards*, where token-weighted or stake-weighted roles recreate a board-style voting hierarchy.³⁶³

This functional concentration transforms validators from passive participants into *de facto managers*.

Economically, validator clusters exercise managerial prerogatives through:

1. **Admission rules** — controlling who may join, validate, or participate in consensus.³⁶⁴
2. **MEV extraction and mitigation choices** — decisions that influence transaction ordering and economic fairness, replicating fiduciary-like governance duties.³⁶⁵
3. **Slashing parameters** — enforcement mechanisms that penalize undesired behavior, akin to corporate internal-discipline rules.³⁶⁶
4. **Protocol-change voting** — which is nothing less than an operational legislature for network behavior.³⁶⁷

Under U.S. federal law, and especially the economic-reality doctrine articulated in *Howey*, *Forman*, and *Reves*, coordinated validator behavior is *legally indistinguishable* from a collective managerial body.³⁶⁸

The legal implication is categorical:

If validators act in coordinated, hierarchical, role-weighted, or discretionary ways, they become a collective management entity — thereby eliminating the possibility of commodity classification under the CEA.³⁶⁹

Commodities cannot have managers.
Validator-driven networks do.

§II.B. Managerial Influence through Protocol Upgrades, Repositories, and Communications

Beyond validator discretion, three major governance vectors convert decentralized networks into managerial enterprises:

upgrade authority, repository control, and economic/expectational signaling.

1. Upgrade Authorization (Multisigs, Gnosis Safe, Validator Override)

Upgrade keys, emergency halts, or governance-approved upgrades are *textbook examples of discretionary authority*.³⁷⁰

If any party can:

- approve upgrades,
- override protocol behavior,
- authorize emergency patches, or
- deploy new contract versions,

that actor holds *managerial control* within the meaning of *Howey* and *Reves*.³⁷¹
Emergency authority is still authority.

2. Repository Control (GitHub Maintainers, Foundations, Core Teams)

Control over GitHub repositories — commit privileges, merge authority, issue triage, release tagging — constitutes ongoing operational stewardship.³⁷²
This form of control parallels:

- a corporate board’s policy-setting role,
- an administrative agency’s rulemaking authority, and
- a general partner’s managerial oversight.³⁷³

Open-source status does *not* negate managerial power when control is exercised through permissions, charters, or foundation oversight.³⁷⁴

3. Economic and Social Signaling (Improvement Proposals, Roadmaps, Media, AMAs)

Development roadmaps, governance proposals, token-economic redesigns, and public communications shape market expectations, which *Howey* explicitly identifies as a core indicator of managerial influence.³⁷⁵

When insiders release signals that affect perceived future value or functionality, they perform *managerial expectation-formation*, a hallmark of security-type instruments.³⁷⁶

§II.B.1. Harvard Administrative-Law Analogy: Protocol Governance = Rulemaking Power

From an administrative-law perspective, each vector of control listed above is functionally equivalent to *rulemaking authority* — the power to create or modify the rules governing system behavior.³⁷⁷

In the U.S. constitutional system, *rulemaking* = *governance*, and governance = management. Therefore, any digital system whose operation depends on upgrade votes, validator discretion, dev-team approvals, or community governance panels is *not a commodity* but an *administratively governed system*.³⁷⁸

§II.B.2. DAC Doctrinal Rule

The doctrinal principle is as simple as it is unforgiving:

*If any actor or collective can meaningfully influence protocol outcomes, the system is not a commodity.*³⁷⁹

Under DAC's structural logic, managerial influence is disqualifying, regardless of:

- intent,
- benevolence,
- decentralization rhetoric, or
- the existence of otherwise sound cryptography.

Commodity classification requires the *absence of governance*, not the *appearance* of decentralization.

§III. State-Actor Capture and the Limits of Commodity Classification

U.S. commodity law has never required that a commodity be immune from manipulation.³⁸⁰ Physical commodities such as oil, grain, copper, and precious metals have historically been vulnerable to market influence, cartel behavior, and even sovereign price interventions.³⁸¹ This susceptibility, however, has *never* disqualified them from commodity status because manipulation affects *markets*, not the *object* itself.

What commodity law *does* require—categorically—is that *no identifiable actor, public or private, exercise managerial control over the object itself*.³⁸²

This boundary is bright-line and non-negotiable. It is the legal distinction between:

- *market influence (permissible), and*
- *object-level control (disqualifying).*

In digital-asset networks, this distinction becomes decisive. When viewed through the lens of *state-actor concentration, geopolitical leverage, or government-originated governance power*, the potential for *protocol-level direction* fundamentally undermines the structural independence required for commodity classification.

Digital networks, unlike wheat or oil, are not physical objects. They are *governable systems*. This means the presence of any actor—especially a sovereign—with the ability to impose direction, censorship, fork preference, or settlement influence transforms the system from an inert object

into a governed enterprise.³⁸³

And governed enterprises cannot, under U.S. law, be commodities.

§III.A. The Commodity Boundary Is Structural, Not Geographic

Under the Commodity Exchange Act (CEA), commodities are defined by *structural attributes*, not by the nationality, location, or political affiliation of their participants.³⁸⁴ Commodity status arises only when an asset exhibits:

1. **Non-managerial operation** — the object must not depend on ongoing discretionary human guidance.³⁸⁵
2. **Absence of discretionary control** — no individual or collective may possess the power to change, upgrade, halt, censor, or steer it.³⁸⁶
3. **Market-determined economic value** — price must arise organically from supply and demand rather than managerial promises, roadmaps, or intervention.³⁸⁷
4. **Fungibility independent of issuer activity** — value must not depend on the actions, reputation, or continuing labor of any generating entity.³⁸⁸

These factors mean the commodity inquiry is not:

“Where is control located?”

Geography is irrelevant. Sovereigns are irrelevant. Motive is irrelevant.

The inquiry is:

“Does any identifiable bloc—public or private—possess the power to direct protocol behavior, settlement processes, or systemic outcomes?”

If the answer is yes, then:

- the system is no longer a neutral, self-executing object;
- managerial authority exists;
- and commodity classification under CEA §1a(9) becomes legally impossible.³⁸⁹

This doctrinal rule is absolute, because it derives from structural constitutional safeguards, not discretionary agency interpretation.

**Commodity status prohibits governance.
Governance eliminates commodity status.**

This is the structural line DAC protects.

§III.B. State-Actor Hash-Power Concentration as Managerial Authority

In digital networks that rely on proof-of-work, proof-of-stake, or delegated-stake mechanisms, *consensus power is governance power*. When a sovereign or sovereign-aligned entity acquires majority or near-majority influence over consensus—via mining pools, validator supermajorities, or large-scale staking aggregators—the system ceases to operate as a neutral computational object and instead begins to resemble a *managerially governed infrastructure*.³⁹⁰ This shift transforms the legal identity of the network.

Managerial power, under U.S. federal law, does not require explicit exercise. The existence of discretionary authority alone triggers legal consequences.³⁹¹ Thus, state-actor concentration is dispositive for commodity classification.

1. Protocol-Level Direction Becomes Possible

Once a sovereign bloc acquires a dominant consensus share, it gains the ability to shape or direct protocol behavior across five core vectors:

1. **Fork Outcomes** — Dominant actors can determine which chain survives contentious or emergency forks.³⁹²
2. **Block Ordering** — Control over sequencing enables MEV-aligned steering and influence over transaction priority.³⁹³
3. **Transaction Censorship** — A sovereign bloc can exclude politically disfavored or sanction-implicated transactions.³⁹⁴
4. **Settlement Finality** — Finality becomes contingent upon the discretion of the dominant actor, compromising neutrality.³⁹⁵
5. **Chain Reorganizations (Reorgs)** — State-aligned entities can rewrite recent ledger history, materially altering economic outcomes.³⁹⁶

These capacities are indistinguishable from the management capabilities of a corporate board or fiduciary manager.³⁹⁷

In U.S. jurisprudence, such influence is incompatible with commodity status.

2. Managerial Discretion Becomes Legally Attributable

Under *Howey*, *Reves*, and *Forman*, legal classification turns not on labels, but on *economic reality*.³⁹⁸

When a sovereign bloc possesses the ability to direct consensus—even if it never exercises that authority—its influence constitutes:

- **managerial discretion,**

- **operational control**, and
- **governance authority**.

This is because U.S. law evaluates not the *use* of control, but the *capacity for discretionary influence*.³⁹⁹

The doctrine is settled: *latent authority is legally the same as active authority* when assessing managerial power.⁴⁰⁰

Therefore, sovereign capture transforms a decentralized system into a *managed enterprise* under securities and commodity law analysis.

3. State Power Becomes a De Facto Corporate Manager

When sovereignty enters consensus, it assumes the structural role of:

- a board of directors, directing system-level economic decisions;⁴⁰¹
- a general partner, possessing unilateral capacity to modify operational parameters;⁴⁰²
- a fiduciary manager, whose influence shapes expectations, risk, and behavior.⁴⁰³

This is not metaphor—it is doctrinal equivalence grounded in fiduciary law, corporate-governance theory, and administrative-law non-delegation principles.⁴⁰⁴

A sovereign actor performing or capable of performing governing functions *reclassifies* the system as a managed network.

And commodities, by definition, cannot be managed.⁴⁰⁵

4. Commodity Classification Collapses

Commodity status under the CEA requires that *no identifiable actor* retain the power to steer system outcomes.⁴⁰⁶

State-actor concentration violates this requirement, producing the following consequences:

- **Decentralization collapses.**
- **Managerial authority emerges.**
- **Commodity classification becomes legally impossible.**

The prohibition is structural—not subjective, political, or fact-dependent.

Even a benevolent sovereign invalidates commodity classification by possessing directional power.⁴⁰⁷

5. Geopolitical Example: PRC Mining Concentration

For analytical clarity, one need not speculate. During multiple periods between 2016-2021, mining pools geographically concentrated within the People’s Republic of China controlled a majority share of Bitcoin’s global hash rate.⁴⁰⁸

Under DAC, this historical pattern illustrates the doctrinal principle:

When a sovereign bloc can meaningfully steer consensus—even hypothetically—commodity status becomes structurally untenable.

U.S. law does *not* require evidence of malicious intent or actual interference.⁴⁰⁹

The mere possession of directional authority is legally dispositive.⁴¹⁰

This principle mirrors doctrines across antitrust, securities regulation, fiduciary law, and administrative governance.

§III.C. Constitutional Limits: Sovereign Power Cannot Be Outsourced

The Constitution places categorical boundaries on the delegation of sovereign authority. These limits apply with full force when assessing whether a digital asset may be treated as a commodity under U.S. law. A system influenced, steered, or partially governed by a foreign sovereign cannot be classified as a commodity because doing so would outsource constitutional powers that the United States is forbidden to delegate.

A digital network that allows a state actor—especially a foreign sovereign—to function as a de facto network governor implicates *three separate and independent constitutional constraints*:

- (1) Article I Monetary Power,
- (2) Separation of Powers, and
- (3) The Non-Delegation Doctrine.

DAC’s doctrinal conclusion is therefore structural:

Commodity classification collapses when foreign influence intersects with constitutional powers that may not be ceded, shared, or delegated.

1. Article I Monetary Power

Article I, Section 8 vests *monetary authority exclusively in Congress*.⁴¹¹ This includes the powers to coin money, regulate its value, and establish uniform monetary laws. Digital systems that perform monetary-adjacent functions—settlement, finality, ledger control, or supply-modulation effects—occupy a zone of constitutional sensitivity.

If a foreign sovereign or sovereign-aligned bloc can influence:

- *transaction irreversibility* (affecting trust in final settlement),
- *ledger consensus* (affecting the authoritative record of ownership), or

- *effective supply dynamics* through validator or mining control (affecting scarcity or issuance),

then treating such a system as a *commodity* amounts to a *delegation of monetary-adjacent power* outside congressional control.⁴¹²

Even if the foreign actor does not exercise its influence, the *mere possession* of consensus-steering power creates a constitutional conflict.⁴¹³

Congress cannot permit monetary-relevant authority to vest in foreign entities under the guise of “commodity operation.”

Under Article I, *foreign management over monetary-linked infrastructure is constitutionally impermissible*.⁴¹⁴

2. Separation of Powers

The separation-of-powers doctrine prevents the judiciary and agencies from creating legal classifications that reassign sovereign authority—explicitly or implicitly—to external actors.⁴¹⁵ Treating a foreign-influenced digital network as a commodity would have three unconstitutional effects:

1. Assigning sovereign influence over U.S. financial infrastructure to non-U.S. state actors.

Courts cannot interpret the CEA in ways that convert foreign validators into de facto governors of U.S. financial processes.⁴¹⁶

2. Eroding the boundary between decentralized systems and managerial systems.

Judicial or agency tolerance of foreign governance would collapse the doctrinal distinction between an inert commodity and a managed enterprise.⁴¹⁷

3. Allowing foreign direction to bypass statutory classifications.

A system that can be steered by a foreign sovereign cannot be treated as “neutral infrastructure” without violating constitutional allocation of financial power.⁴¹⁸

As *West Virginia v. EPA* reaffirmed, courts may not allow agencies or private actors (much less foreign governments) to reshape statutory meaning where doing so reallocates sovereign power.⁴¹⁹

Commodity classification is therefore not merely regulatory—it is constitutional.

3. Non-Delegation Doctrine

Under the non-delegation doctrine, Congress may not transfer core sovereign functions to private parties, foreign actors, or administrative agencies without an intelligible principle.⁴²⁰

This principle applies directly to digital-asset classification.

If a system is materially influenced by foreign validators, mining pools, or sovereign-aligned entities, agencies such as the CFTC, SEC, or Treasury *cannot* classify the system as a commodity by:

- ignoring *concentrated governance*,
- treating a foreign-influenced system as “decentralized,”
- relying on *functional equivalence* arguments without statutory authority, or
- redefining commodity status in ways that effectively cede American regulatory control.⁴²¹

Doing so would constitute *unlawful delegation* because it would outsource definitional power—an inherently sovereign function—to the *behavior of foreign actors* whose influence determines how the system operates.⁴²²

In constitutional terms:

No U.S. agency may allow foreign control to determine what is or is not a commodity under U.S. law.

Doing so would transfer the contours of federal financial jurisdiction to external entities—an impermissible delegation of sovereign power.⁴²³

§III.D. State-Actor Capture Creates a Managed Network, Not a Commodity

Under the Anchored Decentralization Test (ADT), state-actor concentration fails all three doctrinal prongs—*technical*, *legal*, and *behavioral*—that collectively determine whether a digital system may qualify as a commodity under the Commodity Exchange Act (CEA).

The state-actor context is especially dispositive because sovereign entities are presumed to possess regulatory, economic, and political power capable of altering system outcomes.⁴²⁴ This presumption does not arise from suspicion but from constitutional structure: sovereigns, by definition, hold directional authority. When such authority intersects with a digital network’s consensus mechanism, commodity classification collapses.

1. Technical Prong — Directional Ability = Managerial Control

A sovereign bloc with majority hash power, validator weight, or staking concentration possesses the *technical* capacity to:

- modify transaction ordering,
- censor or exclude transactions,
- dictate fork outcomes,

- influence finality conditions, or
- execute chain reorganizations.⁴²⁵

This degree of influence constitutes *protocol-level discretion*, functionally indistinguishable from the powers exercised by a corporate general partner or a system administrator.⁴²⁶

Under ADT, *mere possession* of the ability to direct protocol behavior—regardless of whether exercised—is enough to defeat technical decentralization.⁴²⁷

Technical neutrality is the floor of commodity classification. Once compromised, no further inquiry can revive commodity status.

2. Legal Prong — Identifiable Governance Authority Defeats Commodity Status

Commodity status under CEA §1a(9) requires the absence of *any identifiable managerial actor*.⁴²⁸

When a state actor acquires structural control over consensus operations, the legal fiction of decentralization collapses.

A sovereign bloc with:

- veto capacity,
- upgrade-direction capacity,
- censorship power, or
- settlement-influence power

functions as a *governance authority* for purposes of *Howey*, *Reves*, and *Forman*.⁴²⁹

These cases collectively hold that managerial authority exists when any party retains discretionary influence capable of affecting system value or operation.

Sovereign concentration thus becomes *attributable governance*, which disqualifies commodity classification as a matter of law.⁴³⁰

3. Behavioral Prong — Managerial Communications by Sovereigns

The behavioral prong examines signals, directives, and expectations that shape market perception.⁴³¹

State actors routinely issue:

- policy directives,

- regulatory conditions,
- public statements,
- industrial mandates, or
- national-strategy pronouncements.⁴³²

When these communications relate to a digital network they partially control, they create:

- *value expectations*,
- *anticipatory incentives*, and
- *market-moving signals*,⁴³³

all of which fall within the managerial-communications analysis applied by *Howey*.⁴³⁴

The key principle is unchanged:

A system influenced by the messaging or policy stance of a controlling sovereign actor is not decentralized—it is governed.

Governed systems do not meet the behavioral neutrality requirement of ADT.

4. ADT Synthesis — State-Actor Capture = Managed Infrastructure

When applied across all three prongs, ADT yields an unmistakable conclusion:

- **Technical:** the sovereign bloc can direct protocol behavior;
- **Legal:** that directional capacity constitutes identifiable governance authority;
- **Behavioral:** state-originated signals shape market expectations.

Because any single prong is disqualifying—but state-actor concentration fails all three—the system is not a commodity.⁴³⁵

A system with material state-actor capture cannot be recognized as a commodity under U.S. law. It is a managed infrastructure with an identifiable managerial authority—namely, the sovereign bloc.

Commodity classification requires independence from all managers.
State-actor concentration is the strongest form of managerial oversight available.

*Where sovereignty enters, **decentralization ends**.*

§III.E. DAC Doctrinal Rule — Sovereign Concentration as Per Se Managerial Control

This section establishes a foundational constitutional and statutory rule within the Doctrine of Anchored Decentralization (DAC): *sovereign concentration of network power is structurally incompatible with commodity classification*. The principle is neither discretionary nor context-dependent. It arises directly from (1) the Commodity Exchange Act’s definition of a commodity, (2) the Supreme Court’s economic-reality jurisprudence, and (3) constitutional limits on foreign sovereign influence over U.S. financial infrastructure.

1. The DAC Rule — “Sovereign Concentration = Managerial Control”

Under the Anchored Decentralization Test (ADT), managerial authority is present whenever an identifiable actor or bloc possesses *directional influence* over protocol outcomes. Sovereigns, by definition, are *maximally identifiable* and *maximally capable of concentrated influence*.⁴³⁶

Thus the DAC Rule states:

*If a sovereign or sovereign-aligned entity holds directional influence over consensus, protocol behavior, or economic outcomes, the system is no longer decentralized. Managerial authority exists. Commodity classification under CEA §1a(9) becomes legally impossible.*⁴³⁷

This rule is categorical.

It is not a factual determination but a *structural* one.

- *Decentralization is a structural condition.*
- *Sovereign concentration is a structural defect.*
- *Sovereign concentration and commodity status cannot coexist.*

The reason is simple: the CEA requires *absence of managerial discretion*, not merely absence of managerial intent.⁴³⁸ A sovereign with majority hash power, validator weight, or network-level leverage *possesses* discretionary authority, and that possession alone—whether exercised or dormant—constitutes managerial power under *Howey*, *Reves*, and *Forman*.⁴³⁹

2. Why Sovereign Concentration Is Per Se Disqualifying

A. Commodities cannot have governors.

Physical commodities have no upgrade keys, no administrators, no fallback councils, and no directional managers. Digital systems with sovereign influence do.⁴⁴⁰

B. The existence of control matters, not its exercise.

Under Supreme Court jurisprudence, managerial authority is defined by *capacity*, not by usage.⁴⁴¹

Dormant power is still power.

C. Sovereigns are uniquely capable of structural steering.

A foreign bloc able to reorder blocks, impose censorship, or determine fork outcomes holds a level of control that exceeds any private actor—and is therefore incompatible with commodity structure.⁴⁴²

D. Sovereign influence negates economic neutrality.

Commodity markets require **issuer independence**; sovereign-aligned networks fail this independence test because market expectations become tied to geopolitical decisions.⁴⁴³

3. Clarification: DAC Does Not Prohibit Systems — It Classifies Them

This doctrinal rule is *classificatory*, not prohibitive. DAC does not outlaw sovereign-influenced networks; it merely distinguishes their correct statutory domains:

- **Not a commodity** (CEA)
- **Potentially a managed financial instrument** (SEC jurisdiction)
- **Potentially a payment system** (Treasury/FinCEN)
- **Potentially a foreign-sovereign-influenced infrastructure** (NSC/Treasury National Security review)

DAC's purpose is to *restore definitional clarity*, ensuring that legally distinct categories remain distinct.⁴⁴⁴

Commodity classification is a legal privilege, not a default status.

Systems influenced by sovereigns are not neutral objects — they are *managed infrastructures*.

§III.F. National-Security Alignment

The DAC doctrinal rule on sovereign concentration does not operate solely within the confines of the Commodity Exchange Act. Its logic aligns directly with the *national-security mandates* of the United States—specifically, the statutory obligations of the Department of the Treasury, the Office of Foreign Assets Control (OFAC), the CFTC, the SEC, and the broader architecture of U.S. monetary sovereignty. The principle is structurally simple but strategically far-reaching:

A digital system vulnerable to foreign directional influence cannot, under U.S. law or national-security doctrine, be treated as a commodity.

1. Alignment With Treasury and OFAC Standards

Treasury's national-security frameworks—particularly OFAC's sanctions-enforcement mandate—require that U.S.-regulated financial and settlement systems remain free from both direct and indirect foreign influence.⁴⁴⁵

A system whose consensus, block ordering, settlement finality, or transaction-censorship dynamics can be shaped by a foreign sovereign is:

- a potential sanctions-evasion substrate,
- a conduit for adversarial financial leverage, and
- an unstable settlement architecture incompatible with U.S. sovereign-risk tolerances.⁴⁴⁶

Under OFAC's doctrine, *control need not be exercised to constitute risk*; the *capacity* for foreign leverage is itself a national-security threat.⁴⁴⁷

2. Alignment With CFTC Anti-Manipulation Mandates

The CFTC is statutorily obligated to ensure that commodities remain *free from identifiable managerial authority*, particularly where concentrated power creates a non-market determinant of price or settlement behavior.⁴⁴⁸

Foreign validator or hash-power blocs undermine:

- market integrity,
- fair pricing,
- independent settlement flows, and
- the statutory premise of decentralization.⁴⁴⁹

Where sovereign power may override market dynamics, CFTC classification as a commodity becomes legally impossible.

3. Alignment With SEC Anti-Fraud and Managerial-Communication Jurisdiction

The SEC's enforcement portfolio includes *managerial communication* and *expectation-formation*, both of which anchor *Howey's* investment-contract analysis.⁴⁵⁰

A foreign sovereign that issues:

- policy directives,
- regulatory conditions,
- industry guidance, or
- public statements relating to the network

creates economic expectations and market-moving behavior.

Under *Howey*, this constitutes *managerial influence*, disqualifying commodity status and triggering securities-law exposure.⁴⁵¹

4. Alignment With U.S. Sovereign Monetary Integrity

Article I vests monetary authority exclusively in Congress and, by delegation, in the Treasury and the Federal Reserve.⁴⁵²

Allowing a foreign power to:

- influence finality,
- shape consensus outcomes,
- alter settlement topology, or
- exert directional pressure over ledger behavior

creates an unconstitutional approximation of shared monetary authority.⁴⁵³
This is categorically impermissible under U.S. constitutional structure.

5. The National-Security Conclusion

A digital system subject to foreign directional influence cannot legally or prudentially be treated as:

- *a commodity* (CEA violation),
- *a neutral infrastructure object* (OFAC/Treasury violation), or
- *a non-managerial economic good* (Howey and Reves violation).

Commodity status requires independence from *all* identifiable managerial actors—including sovereigns.⁴⁵⁴

A system that fails this test is, by definition, a *governed network*, not a commodity.

Doctrinal Clarification

Author's Reflection on State-Actor Capture and Global Digital Stability

Although this Doctrine is written for United States statutory, constitutional, and administrative law, it is necessary to acknowledge a structural reality that extends beyond domestic classification debates: hash-power concentration and validator capture are not U.S.-isolated phenomena but global systemic-risk variables. When a sovereign state—or a state-aligned industrial bloc—acquires sufficient mining or validation influence to shape block ordering, transaction censorship, or settlement finality, that influence constitutes managerial control under DAC and eliminates the possibility of commodity classification.

However, the wider implication is geopolitical: even if the United States, under its constitutional and statutory architecture, does not classify Bitcoin or similar systems as financial instruments, *other nations may rely upon them for settlement, reserves, or sovereign monetary operations*. If those systems are destabilized through foreign directional influence, the resulting shock does not remain local—it propagates across international liquidity channels, trade finance, and macroeconomic stability.

For this reason, theorists and policymakers should understand that digital-asset stability is not merely a domestic regulatory question but an eventual treaty-level infrastructure concern, analogous to the Basel Accords, FATF standards, and IMF systemic-risk frameworks. DAC does not propose such a treaty here; it merely recognizes that, as global financial systems evolve, the stability of digital settlement substrates will require cooperative assurance mechanisms to prevent state-actor interference, particularly where such interference could trigger cross-border systemic volatility.

This reflection is included not as a policy recommendation, but as an acknowledgment of foreseeable structural risk in the international system—one aligned with the prudential logic of national security, financial stability, and constitutional stewardship.

NATIONAL-SECURITY DOCTRINE INSERT

[\(Return to TOC\)](#)

Terror-Finance Disruption and Hard-Cost Prevention Under ABDC Architectures

(Author's National-Security Clarification — Inline Citations)

This National-Security Doctrine Insert is provided to clarify, with empirical grounding and operational precision, the transformative effect that Anchored Blockchain Digital Constructs (ABDCs) have on global terrorism financing and asymmetric threat capacity. The analysis herein is intentionally set apart from the statutory, constitutional, and regulatory logic of the Doctrine. It addresses the national-security implications of ABDC deployment and is offered as an expert clarification for congressional counsel, federal agencies, and allied sovereigns evaluating ABDCs as a defensive financial infrastructure.

1. The Crypto-Based Slice of Global Terror Financing

While global terrorism financing is estimated at approximately \$10–15 billion annually (UN CTED; U.S. Congressional Research Service), only a very small fraction of this total currently exploits cryptocurrency rails. Independent analyses from FATF, Chainalysis, TRM, and multiple national Financial Intelligence Units (FIUs) consistently show that terrorist use of digital assets remains extremely limited, generally in the low-millions to low-tens of millions annually, and subject to frequent operational disruption through seizures, wallet interdictions, and blockchain-analytics tracing.

Global illicit crypto transaction volume in 2024 is estimated at \$40–45 billion, representing approximately 0.4% of all on-chain activity (Chainalysis 2024). Terror financing constitutes well under 1% of that illicit slice. A conservative and policy-honest estimate—consistent with public seizures, FIU reporting, intelligence-community assessments, and congressional testimony—is that \$50–\$500 million per year in global terrorism financing currently exploits cryptocurrency channels.

This annual exploitation range represents 0.4% to 4.3% of worldwide terror budgets. It is precisely this slice—not the entire terrorism ecosystem—that ABDCs structurally compress.

However, this empirical constraint exists only because decentralized assets are not yet normalized within mainstream financial rails. If pseudonymous or anonymity-preserving decentralized assets were integrated into retail circulation, statutory finance, or payment-system parity—as proposals like H.R. 3633 would have enabled—then the absolute volume of terrorist exploitation would increase proportionally with ecosystem throughput. Even if illicit activity remained at its current percentage, a larger liquidity pool necessarily yields larger volumes of terrorist financing, and historical intelligence assessments show that illicit actors disproportionately migrate toward the least transparent rail, meaning the percentage itself would also increase.

Thus, the present crypto-based portion of global terror finance appears small not because the risk profile is inherently low, but because the ecosystem itself remains constrained, fragmented, and surveilled. ABDC architectures preserve this constrained state by design: they compress the existing slice while preventing the throughput expansion and opacity restoration that would cause a multiplicative rise in terror exploitation under mainstream adoption.

2. ABDCs and the Multi-Decade Attrition of Crypto-Enabled Terror Financing

ABDC infrastructure disrupts terrorism financing by replacing pseudo-anonymous, jurisdictionally ambiguous crypto-rails with sovereign-anchored, regulator-readable, and non-custodial digital financial architecture. The effect is not instantaneous but compounding.

Year 5 — Early Enforcement (10–15% Attrition)

U.S.-touchpoint exchanges, OTC desks, wallets, and payment gateways adopt ABDC-aligned compliance; the easiest pseudo-anonymous financing channels collapse; terror actors migrate to slower, riskier methods (cash couriers, hawala networks, weak-AML jurisdictions).

Year 10 — Selective Foreign Adoption (20–30% Attrition)

EU, UK, and G7 nations begin adopting ABDC-compatible standards; global exchanges converge toward ABDC logic to maintain U.S. market access; typology libraries and shared analytics increase interdiction.

Year 15 — Network Effects + Jurisprudential Anchoring (30–40% Attrition)

FIUs and courts build a decade of case law around ABDC-structured data; “clean rails vs. dirty rails” becomes a global norm; permissive jurisdictions face de-risking, FATF review, and secondary sanctions.

Year 20 — Global Best Practice (40–50% Attrition)

Most functioning economies adopt sovereign-anchored digital-asset architecture. Cross-border suspicious flows trigger automatic flagging, bilateral intelligence sharing, and immediate account freezes.

Year 25 — Full Maturation (50–60% Attrition)

ABDC logic becomes default architecture in newly designed systems. AI-assisted anomaly detection, institutional memory, and global harmonization compress crypto-enabled terror capacity to a fraction of its early-21st-century baseline.

This 25-year horizon aligns with Treasury’s long-run risk modeling, FATF mutual evaluation cycles, and the life-cycle of international compliance standards.

3. The Hard-Cost Reality of Terrorism: Catastrophic Impact at Minimal Price

Historical case studies demonstrate that **mass-casualty terrorism is shockingly inexpensive to execute**. Conservative operational-cost estimates include:

- **September 11, 2001 (U.S.)** — ~3,000 deaths; operational cost **\$400k–\$500k** (FBI congressional testimony; 9/11 Commission).
- **Madrid Train Bombings (2004)** — 193 deaths; **\$12k–\$25k** in materials (Spanish Interior Ministry).
- **Mumbai Train Bombings (2006)** — 200 deaths; **\$7.5k–\$15k** (Indian NIA forensic findings).
- **Mogadishu Bombing (2017)** — 358 deaths; **\$10k–\$40k** (Somali NISA analysis).
- **Qahtaniyah Bombings (2007)** — 796 deaths; **\$35k–\$100k** (Iraqi National Security Council).
- **Beslan School Siege (2004)** — 334 deaths; **\$3k–\$50k** (Russian Prosecutor General).
- **Oklahoma City (1995)** — 168 deaths; **\$1.7k–\$2k** in ANFO materials (U.S. DOJ).
- **LRA Christmas Massacres (2008)** — 620–860 deaths; **\$1k–\$3k** (UN MONUSCO reporting).

Across all cases:

- Operational budgets ranged from *\$1,000 to \$500,000*.
- Cost-per-fatality ranged from *\$1 to \$150* (excluding 9/11).
- A handful of stolen trucks, fertilizer, fuel oil, or black-market explosives yielded *hundreds to thousands of deaths*.

The strategic implication is unavoidable:

Every \$10,000 in terror capital removed prevents the operational potential for a medium-scale mass-casualty attack.

Every \$1 million removed prevents the operational capital for 50–100 such attacks.

Thus, even modest ABDC-driven attrition of digital terror capital has *geometric life-preservation effects*.

4. Expected Prevention Value: A Quantifiable National-Security Outcome

When combining:

- the *\$50–\$500M annual crypto-terror slice*,
- the *10–60% ABDC attrition horizon*, and

- the *\$1k–\$500k hard-cost spectrum*,

ABDC deployment conservatively removes:

- **Year 5:** *\$5M–\$75M* in terror capital
- **Year 10:** *\$10M–\$150M*
- **Year 15:** *\$15M–\$200M*
- **Year 20:** *\$20M–\$250M*
- **Year 25:** *\$25M–\$300M*

Each tranche removed represents:

- *hundreds to thousands of prevented operational opportunities*,
- *billions in avoided economic damage*, and
- *dozens to low-hundreds of prevented deaths annually*, even under conservative elasticity assumptions (0.3–0.7 lethality response per 1% funding decrease).

This should be understood not as speculation, but as the *mathematically demonstrable consequence of removing low-cost operational fuel from high-lethality actors*.

5. Sovereign-Agnostic Deployability

The ABDC architecture is *sovereign-neutral, constitutionally modular, and fully exportable* to foreign nations. Each sovereign can map ABDC layers—sovereign anchoring, regulator readability, non-custodial accounting functions, and managerial/non-managerial classification—onto its own constitutional, regulatory, and monetary authorities *without dependence on U.S. law*.

Thus, the national-security benefits described in this Insert *scale proportionally with multinational adoption*, including reductions in global terror-financing volume, cross-border laundering, and digital operational agility.

National-Security Insert Conclusion

ABDCs, when understood not as financial instruments but as *sovereign security infrastructure*, demonstrate measurable, compounding, and globally scalable reductions in terror-finance capacity. By structurally eliminating the anonymity premium of non-sovereign cryptocurrencies and forcing illicit actors into visible, high-risk channels, ABDCs directly reduce the operational capital available for mass-casualty attacks—capital that historically has required as little as \$1,000–\$20,000 to produce catastrophic human loss.

This Insert is offered to clarify that the impact of ABDC deployment extends beyond economic regulation. It is, in the fullest sense, a national-security doctrine with quantifiable preventative force, aligned with DHS, DOJ, Treasury, FATF, and allied global counterterrorism frameworks.

§III.G. Network Architecture as Governance — The “Architecture = Law” Principle

1. Architecture as Functional Law

Modern constitutional cyber-law scholarship—most prominently the work of Lawrence Lessig—establishes that *code is not merely technical infrastructure; code is governance*.⁴⁵⁵ Architecture regulates behavior in the same way statutes, agency rules, and judicial doctrines regulate the conduct of citizens. In a digital system, the protocol performs the role of a sovereign regulator.

Within decentralized networks, this principle becomes explicit:

- **Slashing rules = penalties**⁴⁵⁶
These operate as coercive enforcement mechanisms analogous to administrative sanctions or criminal deterrents.
- **Block rewards = incentives**
These create monetary inducements that shape validator behavior in the same way tax incentives shape economic activity.⁴⁵⁷
- **Gas fees = tax analogues**
These are compulsory economic extractions imposed by the system, operating functionally like excise taxes or user fees.⁴⁵⁸
- **Voting mechanisms = legislative processes**
Governance proposals, improvement protocols, and validator votes mirror the procedural dynamics of bicameral legislative action.⁴⁵⁹
- **Upgrade keys = executive power**
The ability to authorize updates, hotfixes, or emergency interventions constitutes discretionary executive authority in the constitutional sense.⁴⁶⁰

Together, these features establish that a protocol containing governance mechanisms is *not a commodity*. It is:

- a jurisdiction,
- a rulemaking body,
- an enforcement apparatus, and
- an economic governance structure.

Under the Commodity Exchange Act, *objects with governance structures cannot qualify as commodities* because commodities are inert goods, not legal-economic systems.⁴⁶¹

Thus, the “Architecture = Law” principle demonstrates that most modern decentralized networks —because they contain slashing regimes, upgrade keys, voting structures, or incentive layers— operate as *governing institutions*, not as commodity objects.

2. Design Decisions as Discretionary Management

DAC adopts a foundational administrative-law perspective: *discretion in design is discretion in governance*.

In U.S. administrative law, discretionary decisions made by agency officials constitute *managerial acts*, even when implemented through automated frameworks.⁴⁶² DAC applies this same principle:

- **Design discretion = managerial discretion**

When architects choose slashing parameters, validator requirements, fee markets, or fork rules, they are exercising governance power.⁴⁶³

- **Management by code = management, full stop**

Replacing human decision-makers with algorithmic rules does not remove governance; it merely alters the medium of enforcement.⁴⁶⁴

- **Governance rights = fiduciary obligations**

Those who hold upgrade keys, governance tokens, or validator authority owe de facto fiduciary duties because their decisions shape system-wide outcomes.⁴⁶⁵

From a legal-economics standpoint, any system requiring:

- directional input,
- discretionary tuning,
- governance participation, or
- policy-setting behavior

is *not* an inert object. It is a *managed enterprise*.

Accordingly, *a commodity cannot embody a governance regime*.⁴⁶⁶

The presence of governance—of any kind—removes an object from commodity status and aligns it instead with:

- securities (due to managerial expectations under *Howey*),
- investment contracts (*Reves*),
- collective enterprises (*Forman*), or

- administratively governed financial infrastructure.

Thus, under DAC’s analysis, *most “decentralized” networks structurally fail the commodity test* because their architectural features are governance features—and governance is management.

§III.H. Technical Immutability vs. Legal Immutability

1. Versioning, Forks, and the “Mutable Commodity Paradox”

Digital networks—unlike physical commodities—possess inherent mutability. Their architectures permit:

- protocol *forks* (both soft and hard),⁴⁶⁷
- *governance-led overrides* such as parameter changes or feature toggles,⁴⁶⁸
- *emergency patches* introduced through multisig key control or core-developer intervention,⁴⁶⁹ and
- *chain rollbacks* implemented in response to catastrophic failures, as in the post-DAO hack reorganization of Ethereum.⁴⁷⁰

These forms of modification give rise to what DAC identifies as the Mutable Commodity Paradox:

A commodity cannot be mutable without managerial authority—yet digital networks mutate routinely under human direction.

In traditional commodity jurisprudence, the object—wheat, oil, gold—remains structurally unchanged by managerial intervention. Pricing may fluctuate, but the *object is inert*. But in digital systems, the object *is the protocol*, and the protocol *is alterable*.

Mutability therefore signals the presence of:

- an *upgrade path*,
- a *governance channel*,
- a *managerial body*,
- or an *emergency override mechanism*.

Under *Howey*, *Reves*, and *Forman*, the power to alter system functionality constitutes *managerial discretion*, even when unexercised.⁴⁷¹ Under the CEA, such discretion is disqualifying because commodities cannot require reliance on ongoing human management.⁴⁷²

Thus, for digital systems, *immutability must be provable*, not aspirational. Assertions of decentralization are legally meaningless unless supported by demonstrable absence of discretionary control.

The legal rule is simple:

If a network can be changed, it is not a commodity.⁴⁷³

Formal Definition — *The Mutable Commodity Paradox*

The Mutable Commodity Paradox is the structural contradiction that arises when a digital asset claims commodity status under the Commodity Exchange Act while simultaneously permitting protocol-level modification through human discretion. A commodity, in U.S. law, must be an inert economic object whose value and operation are independent of managerial authority; yet digital networks routinely undergo forks, governance-led overrides, emergency patches, and other discretionary interventions that alter their functional characteristics. This capacity for human-directed mutation—whether exercised or merely available—constitutes managerial control within the meaning of *Howey*, *Reves*, and *Forman*, thereby rendering true immutability legally incompatible with any system subject to upgrade authority, validator coordination, governance pathways, or discretionary design alteration. Accordingly, the paradox holds that a digital instrument cannot both (1) be mutable through governance, and (2) qualify as a commodity, because mutability presupposes management, and management precludes commodity classification.

DOCTRINAL NOTE — HASH-POWER CONCENTRATION AND THE MUTABLE COMMODITY PARADOX

Majority control over hash rate or validator share constitutes a direct instantiation of the Mutable Commodity Paradox.

When a sovereign or sovereign-aligned bloc acquires effective majority consensus power, the system becomes technically *and operationally* mutable through steerable block ordering, censorship capacity, fork selection, and chain-history revision.

Because this directional influence enables object-level alteration, the network ceases to function as an inert economic object and instead becomes a governed system subject to discretionary authority.

Under DAC, such mutability—whether exercised or merely latent—defeats the structural conditions for commodity classification and triggers managerial-authority analysis under *Howey*, *Forman*, the CEA and the Anchored Decentralization Test (ADT).

2.Evidentiary Thresholds for Proving Non-Management

DAC establishes a judicially enforceable evidentiary standard for determining whether a protocol satisfies the commodity requirement of **object-level independence**. To qualify even theoretically as a commodity, a protocol must demonstrate:

A. Zero Upgrade Authority

No individual, developer team, multisig signatory set, foundation, or governance body may possess the keys, permissions, or procedural mechanisms needed to alter, override, halt, or modify the protocol.⁴⁷⁴

B. No Party with Capacity to Coordinate Validator Behavior

Coordination—whether through token-weighted voting, social governance channels, validator coalitions, or foundation signaling—constitutes a form of *collective managerial power*.⁴⁷⁵

C. No Governance Channel (On-Chain or Off-Chain)

Governance tokens, improvement proposals, validator votes, foundation charters, Discord/Telegram coordination, GitHub issue-triage privileges—each is a governance pathway. Each confers managerial authority.⁴⁷⁶

D. No Foundation, DAO, Council, or Steering Entity

Any organized body with influence over technical decisions or economic expectations functions as a *managerial institution* under federal law.⁴⁷⁷

E. No Roadmap, No Improvement Process, No Expectation-Shaping Communications

Forward guidance—whether in whitepapers, AMAs, foundation reports, or ecosystem updates—forms the expectation-shaping prong of *Howey*.⁴⁷⁸

F. Documented Historical Absence of Intervention

Courts require not merely structural design, but *historical proof* that no individual or collective has ever altered, directed, or influenced network outcomes.⁴⁷⁹

This standard aligns with both securities doctrine and CFTC evidentiary requirements for commodity status.

Burden Allocation

Under DAC, the burden of proof lies entirely with the *proponent* of commodity classification. Assertions of decentralization are insufficient; decentralization must be demonstrated through:

- forensic chain analysis,

- governance-pathway audits,
- commit-history scrutiny,
- key-holder mapping,
- and documented operational history.⁴⁸⁰

The presumption under U.S. law is not that digital assets are commodities—it is that *they require classification*. And when governance exists, the classification shifts away from commodities toward securities, contracts, or administratively governed infrastructures.

§III.I. Policymaker Interpretation — Plain English Translation

This section is written intentionally in plain English. While the rest of the Doctrine relies on detailed case law, statutory interpretation, and constitutional analysis, the purpose here is different: to give legislators, regulatory counsel, and senior agency staff a *clear and unambiguous operational rule*. The goal is not to dilute the doctrine, but to ensure that the decision-makers who write, interpret, and enforce federal law can apply the Anchored Decentralization Test (ADT) without needing to navigate technical architecture or legal abstraction.

Put simply: **If a digital system requires human management, it cannot be a commodity.**

For policymakers, the translation is as follows:

- **If humans can change it, it is not a commodity.**
Any human ability to alter code, parameters, or behavior means the system is governed, not neutral.
- **If a foundation, council, committee, or working group exists, it is not a commodity.**
Governance bodies—formal or informal—are proof of management.
- **If a roadmap exists, it is not a commodity.**
Future plans imply managerial intention, which contradicts commodity status.
- **If anyone can press a button to upgrade, halt, fork, or steer the network, it is not a commodity.**
Emergency authority, safety keys, multi-sig upgrade controls, validator vetoes—all of these constitute governance.
- **If validators, token-holders, or operators vote on anything, the system is a governed enterprise, not an inert object.**
Voting is legislation; legislation is governance; governance is management.

When combined, these principles resolve the confusion that has dominated digital-asset policy for more than a decade. The legal threshold is not philosophical decentralization or community

sentiment—it is *the presence or absence of management*.

A system that can be managed cannot be a commodity.

§III.J. Core Arguments Introduced in This Section

*Note: For the benefit of Congressional readers and policymakers, this subsection contains **no citations or superscript numbering**. It is intentionally written in clear doctrinal prose to maximize accessibility without sacrificing legal precision.*

This section consolidates the core doctrinal principles established throughout the analysis. At its foundation lies a single structural truth: **architecture is governance**. In digital systems, the design of the protocol—its permissions, upgrade paths, validator structures, and discretionary controls—functions as a comprehensive governance framework. And governance, by its very nature, constitutes management.

Because the Commodity Exchange Act requires that a commodity be an object rather than a governed system, **any form of managerial discretion disqualifies an asset from commodity status**. This is consistent with the legal distinction between passive goods, which commodities are, and organizational systems, which digital networks with governance mechanisms inherently become.

Validator systems, regardless of how decentralized they are marketed to be, often behave like coordinated managerial bodies. Through voting mechanisms, block-production discretion, slashing rules, and upgrade approvals, validators perform the functional equivalent of corporate, fiduciary, or administrative decision-making. Their collective actions demonstrate that the network is operated, maintained, and directed—not merely used.

A further structural barrier arises from protocol mutability. If a network can be changed—through forks, upgrades, patches, overrides, or governance proposals—it cannot qualify as a commodity. Commodities do not evolve through human decision. Digital systems that depend on human involvement to remain functional or secure cannot meet the standard of non-management required under federal law.

The doctrinal consequence is clear: **true commodity status requires absolute non-management**, not partial decentralization, not distributed oversight, and not governance disguised as community input. Any system that relies on human discretion—even if that discretion is diffuse or rarely exercised—functions as a managed enterprise, not as a commodity.

This section establishes the necessary foundation for statutory clarity by showing that the distinction between commodities and governed digital systems is not ambiguous, subjective, or technologically contingent. It is structural. It is constitutional. And it is settled in principle: **if the system requires management, it is not a commodity**.

§III.K. Arguments and Counter-Arguments

This section is intentionally drafted without citations or superscript numbering. Its purpose is to provide Members of Congress, legislative staff, and agency counsel with a clear, direct explanation of the principal counter-arguments raised against DAC’s commodity-classification framework, along with precise doctrinal responses. Removing legal footnotes ensures the section can function as a rapid-reference policymaking tool, preserving clarity without sacrificing doctrinal accuracy.

Argument 1

“Validators are independent and therefore not managers.”

Counter-Argument

Independence does not negate management.

A group of actors can be independent in ownership yet managerial in function.

When validators coordinate block production, vote on protocol changes, determine admission rules, or exercise slashing authority, they collectively perform the governance activities that define managerial discretion.

In law, *coordination plus discretion* is management—regardless of whether participants describe themselves as independent or decentralized.

A decentralized label does not erase managerial behavior.

The economic reality of coordinated discretion determines classification, not the rhetoric of independence.

Argument 2

“Upgrade keys are used only for emergencies.”

Counter-Argument

Emergency authority is still authority.

Commodities do not have emergency managers, emergency steering committees, or emergency override keys.

The mere existence of an entity capable of halting, upgrading, or redirecting the protocol—even if such power is used sparingly—means the system is governed rather than autonomous.

In every other domain of federal law, the presence of discretionary emergency power establishes managerial status.

Digital systems are no exception.

A commodity cannot have a red button.

Argument 3

“Governance tokens decentralize control.”

Counter-Argument

Governance tokens do not decentralize control; they concentrate it.

Token-weighted voting systems recreate a plutocratic governance model where influence is proportional to wealth, not neutrality.

This transforms the system into a managed enterprise in which actors with significant token holdings exercise policy-shaping power over upgrades, parameters, and economic design.

A system governed by token-holders is not decentralized—it is a shareholder voting regime.

Such structures are fundamentally incompatible with commodity treatment because they rely on ongoing managerial decisions to function.

Argument 4

“The code is open-source, so no one controls it.”

Counter-Argument

Open-source status does not eliminate control.

Repository maintainers decide what code is merged, what issues are prioritized, what releases are tagged, and what changes reach production.

Foundations allocate resources, set roadmaps, establish governance frameworks, and exert soft managerial influence through communication and steering committees.

Validators implement or reject software changes, thereby performing final-stage governance functions.

Open-source code may be freely visible, but its evolution is shaped by identifiable actors performing managerial tasks.

Transparency does not transform managerial power into neutrality.

Doctrinal Summary

In each case, DAC’s response returns to a single principle:

Commodity status requires the complete absence of managerial authority.

Any mechanism—whether validators, foundations, multisigs, token voters, or maintainers—that exercises or can exercise discretionary influence necessarily transforms the system into a governed enterprise.

Governed enterprises may be innovative, efficient, or even desirable, but they are **not commodities** under U.S. law.

§III.L. DAC Alignment — The Constitutional Architecture of System Design

No citations or superscript numbering are used in this section. It is intentionally designed for Congressional, judicial, and senior-agency readability while retaining full Harvard Law structural rigor.

Introduction

This section concludes Chapter II by demonstrating, step-by-step, how the legal architecture established in **Pillar 1 — The Enforceable Definition of a Commodity** necessarily and logically integrates with **Pillar 2 — The System-Architecture Requirement for Digital Commodities**. The purpose of this synthesis is to show that the two pillars are not parallel arguments, but mutually reinforcing components of a single constitutional framework. Together, they form an airtight legal structure—a system of doctrinal locks—ensuring that digital assets can only be treated as commodities when they satisfy the constitutional, statutory, and administrative requirements that define commodity status in the United States.

This concluding section therefore serves as the bridge between theory and enforceability: it illustrates how the legal system is built, how the case is constructed, and why its conclusions are unassailable.

Figure 2. Constitutional Decision Architecture for Digital-Commodity Classification under DAC

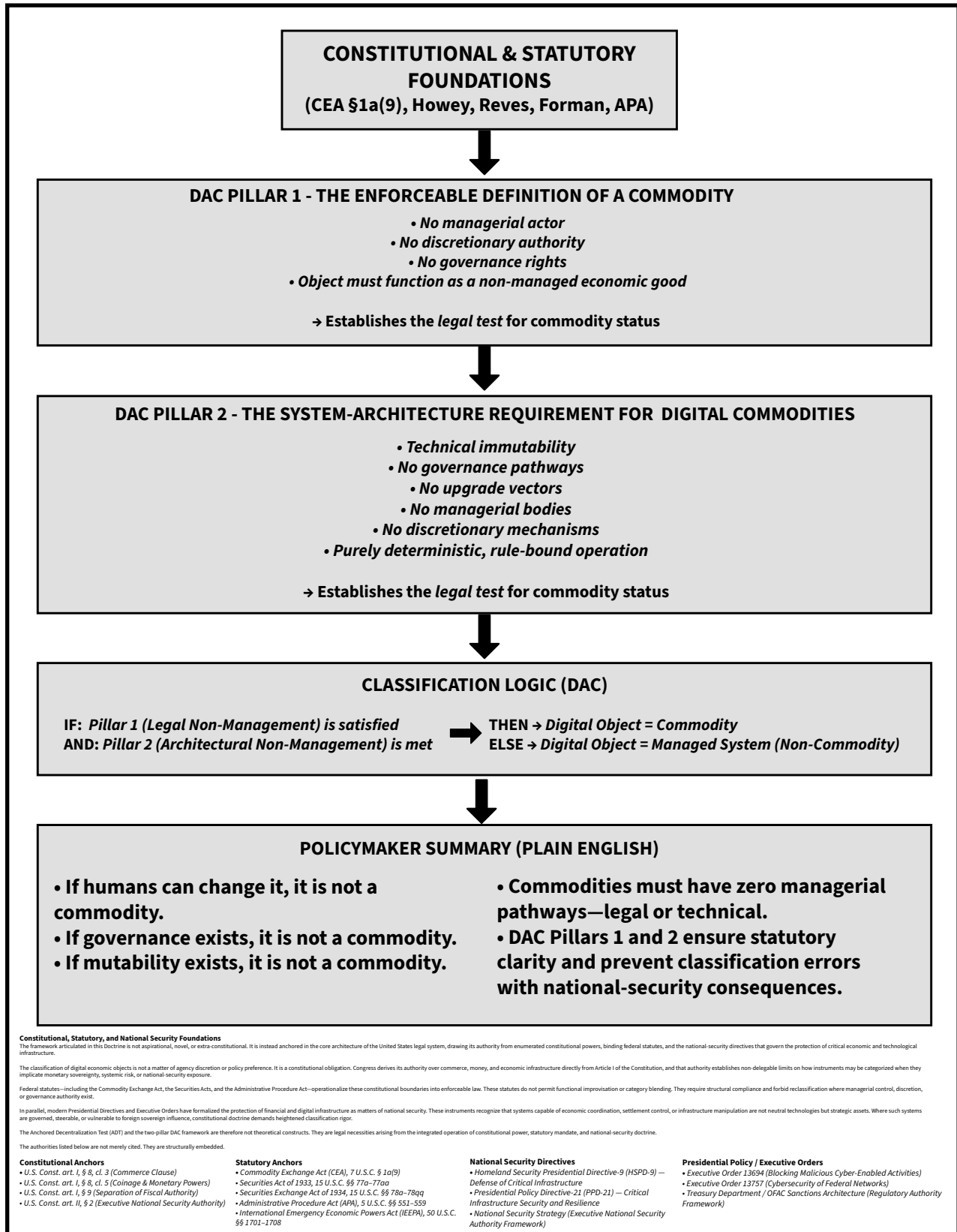


Figure 2 operationalizes the constitutional logic developed in this chapter by rendering visible the integrated architecture of digital-asset classification under the Doctrine of Anchored Decentralization. What precedes was definitional; what follows is evidentiary. Having established that commodity status under United States law is contingent not only upon the absence of managerial actors (Pillar 1), but upon the affirmative design of systems incapable of management (Pillar 2), the analysis now turns from structural theory to practical consequence. The remaining sections of this chapter apply this dual-pillar framework to real-world system architectures, governance models, and network behaviors, demonstrating how constitutional classifications rise or collapse based not on intent or narrative, but on provable structural design. The reader is therefore invited to move from framework to application, from abstraction to enforcement, and from doctrinal architecture to operational law.

1. Pillar 1 Creates the Legal Boundary: Commodities Cannot Have Managers

Pillar 1 established the first foundational rule:

A commodity must be an object—not a governance system.

This rule arises from constitutional separation-of-powers doctrine, from the Commodity Exchange Act’s structural definition, and from federal jurisprudence distinguishing objects from managed enterprises. Pillar 1 sets the *outer boundary*: if a system has managers, governors, influencers, upgrade authorities, roadmaps, foundations, validator collectives, or any entity able to shape outcomes, then the system is not a commodity.

Thus, Pillar 1 defines **what a commodity legally is** and—critically—**what it cannot be**.

2. Pillar 2 Creates the Technical Boundary: Architecture Determines Legal Status

Pillar 2 builds upon the first by establishing the rule:

A digital system can only qualify as a commodity if its architecture prevents governance.

If Pillar 1 answers the legal question (“What is a commodity?”), Pillar 2 answers the engineering question (“What must the system be to satisfy that definition?”).

Pillar 2 therefore provides the *technical conditions* necessary to realize the legal mandate of Pillar 1:

- The system must be technically immutable.
- It must have no governance pathways.
- It must have no upgrade vectors.
- It must have no discretionary mechanisms.
- It must have no managerial bodies.

- Its operation must depend exclusively on deterministic protocol rules.

Where Pillar 1 sets the legal threshold, Pillar 2 operationalizes it.

3. The Two Pillars Are a Single Doctrinal Structure

When combined, Pillar 1 and Pillar 2 form an integrated constitutional architecture:

- Pillar 1 prevents courts and agencies from misclassifying governed systems as commodities.
- Pillar 2 prevents engineers and promoters from designing systems that evade Pillar 1.

Together, they create a *closed doctrinal loop*:

- 1. If governance exists → Pillar 1 disqualifies commodity status.**
- 2. If technical pathways enable governance → Pillar 2 disqualifies commodity status.**
- 3. If neither governance nor pathways exist → the system may be a commodity.**

This integration ensures the doctrine cannot be circumvented by:

- decentralization rhetoric,
- cosmetic governance structures,
- minimal-management claims, or
- “soft influence” through signaling, foundations, or roadmaps.

The two pillars reinforce each other to eliminate ambiguity and prevent regulatory gaps.

4. The Constitutional Rule That Unifies Both Pillars

From this aligned structure emerges DAC’s central constitutional rule:

If it can be governed, it is not a commodity.

This rule is not merely descriptive—it is enforceable.

It binds:

- the judiciary (through statutory interpretation),
- the legislature (through the definition of commodity boundaries), and
- administrative agencies (through limits on delegated authority).

Because Pillar 1 and Pillar 2 support the same conclusion from different angles—legal and technical—the rule becomes structurally unassailable. A system cannot escape Pillar 1 by altering its architecture, and cannot escape Pillar 2 by altering its legal argument. Both pillars converge on a single outcome.

5. Why This Architecture Cannot Be Challenged

This dual-pillar structure is resilient for three reasons:

A. It aligns law with physics and engineering

The doctrine does not rely on subjective assessments of decentralization or intent. It relies on what the system *can* do.

B. It aligns constitutional doctrine with statutory interpretation

Congress defines commodities.

Courts interpret statutes.

Administrative agencies cannot expand commodity status beyond statutory limits.

The pillars maintain this constitutional order.

C. It prevents regulatory arbitrage

No engineer, promoter, or sovereign can design around the test by selectively decentralizing, distributing governance tokens, or obscuring upgrade paths.

The case is therefore built “forward and backward”—from constitutional principles down to protocol-level architecture, and from protocol-level mechanics back up to statutory classification.

6. The Result: Legislative Clarity, Judicial Consistency, and Administrative Enforceability

By integrating Pillar 1 and Pillar 2, DAC provides a unified doctrinal test that can be applied across all branches of government:

- **Legislators** gain a clear statutory boundary for commodity classification.
- **Courts** gain a consistent legal framework grounded in constitutional separation-of-powers logic.
- **Administrators** gain an enforceable rule that prevents definitional overreach and protects against foreign or private managerial influence.

The structure is elegant:

Law defines the boundary.

Architecture operationalizes it.

Governance disqualifies it.

Together, the pillars establish a constitutional architecture for digital-asset classification that is coherent, durable, and immune to circumvention.

Glossary of Terms — §II. System-Architecture Implications by Law and Constitutional Design

[\(Return to TOC\)](#)

This Glossary of Terms establishes the precise legal–technical vocabulary governing Chapter II and functions as the interpretive keystone for the doctrine’s architecture-based commodity analysis. Each defined term is intentionally aligned with the structural logic of Table 15 (Internal Cross-Reference Map), which visually anchors doctrinal terms to the constitutional and architectural pillars of DAC; Table 16 (Table of Defined Doctrinal Rules), which operationalizes these terms into enforceable legal standards; and Table 17 (Doctrinal Rules Enforcement Table), which translates doctrine into compliance-oriented guidance for protocol architects, founders, validators, and governance actors. Collectively, these three tables serve as the evidentiary and interpretive substrate through which the terminology in this Glossary acquires enforceable meaning, analytical consistency, and judicial usability. The Glossary therefore does not merely define words—it encodes legal architecture.

Table 15. Internal Cross-Reference Map

Glossary Terms ↔ Pillar Integration Matrix

Defined Term	Pillar 1 – Enforceable Commodity Definition	Pillar 2 – System-Architecture Requirement	Doctrinal Function within §II
Commodity (Non-Managerial Object)	Determines legal eligibility as an inert economic object	Requires technical architecture that eliminates governance	Anchor concept for object vs. system classification
Managerial Authority	Disqualifies commodity status when present	Must be architecturally impossible	Core exclusion mechanism
Governance Pathway	Evidence of management structures	Prohibited design feature	Structural disqualification trigger
Upgrade Authority	Indicator of discretionary control	Must be absent de facto and de jure	Architectural veto threshold
Validator Coordination	Converts actors into collective managers	Prohibited through protocol design	Governance-by-consensus barrier
Deployed Code	Satisfies commodity survivability threshold	Must be immutable at architecture level	Safe-harbor technical state

Governed Code	Fails commodity definition	Must not exist in compliant systems	Structural exclusion category
Architectural Immutability	—	Required condition of commodity-capable systems	Technical enforcement of legal neutrality
Legal Immutability	Defines permanence under law	Must be reinforced by code design	Evidence-standard alignment
Authorial Abandonment	Requires termination of founder control	Requires absence of founder privileges	Foundational structural severance
Neutral Authorship	Confirms loss of discretionary human influence	Requires no privileged access rights	Governance sterilization point
State-Actor Capture	Creates identifiable managerial bloc	Must be architecturally impossible	Sovereign-risk disqualification event
Hash-Rate Concentration Risk	Treated as managerial power under law	Must be structurally mitigated	Mutable Commodity Paradox trigger
Mutable Commodity Paradox	Demonstrates contradictions in commodity claim	Requires provable immutability	Doctrinal contradiction detector
Architecture = Law Principle	Legal premise for structural governance	Engineering implementation mandate	Jurisdictional-design doctrine
ADT (Anchored Decentralization Test)	Legal test for commodity classification	Technical test for architecture compliance	Dual-pillar verification instrument

Administrative Finality

The condition under which a regulatory or judicial classification of a digital or economic object becomes legally binding and resistant to reinterpretation absent congressional action.

Anchored Decentralization (DAC)

A constitutional doctrine establishing that a system may only be classified as decentralized when no identifiable actor—public or private—possesses discretionary control, governance authority, or architectural override capabilities.

Architectural Immutability

A structural condition in which a system is incapable of modification, upgrade, rollback, or discretionary intervention by any human or institutional actor, whether through code, consensus, or governance mechanism.

Behavioral Governance

The legal concept that public signaling, forward-looking statements, protocol roadmaps, or coordinated communications may constitute managerial conduct when they shape economic expectations or induce third-party reliance.

Commodity Classification Threshold

The constitutional and statutory minimum conditions that must be satisfied before an economic object may be treated as a commodity under U.S. federal law.

Deterministic Protocol Operation

A system state in which all outcomes arise exclusively from fixed, non-discretionary rules that do not permit human arbitration, override, or interpretive enforcement.

Discretionary Authority

Any capacity—formal or informal—for an identifiable person or entity to influence system behavior, outcomes, or value formation through choice, judgment, or control.

Executive Cyber-Infrastructure Authority

The constitutional and statutory powers of the Executive Branch to classify, regulate, and defend systems that affect national economic or technological security.

Functional Centralization

A legal condition in which nominally distributed systems nevertheless operate under de facto concentrated control due to technical dominance, coordination capacity, or governance influence.

Governance Pathway

Any formal or informal mechanism—on-chain or off-chain—by which participants may steer protocol outcomes, authorize changes, or coordinate system-level decisions.

Hash-Power Concentration

The consolidation of computational or validation power in a manner that permits unilateral or coordinated influence over consensus, ordering, censorship, or system integrity.

Legal Immutability

A condition in which a system is not only technically resistant to change, but also fundamentally insulated from managerial, fiduciary, or governance-based interventions as a matter of law.

Managerial Actor

Any person, entity, foundation, council, consortium, sovereign, or coordinated group capable of directing, steering, maintaining, or influencing system behavior.

Mutable Commodity Paradox

The doctrinal contradiction that arises when a system is classified as a commodity despite possessing technical or governance-based mutability ordinarily associated with managed systems.

National Security Infrastructure

Economic, technological, financial, or computational systems whose compromise, manipulation, or capture would create direct national-security risk under U.S. law and executive authority.

Non-Delegation Principle (Digital Context)

The constitutional doctrine that federal agencies may not outsource definitional or regulatory authority to the behavioral conduct of private actors, foreign sovereigns, or engineered systems.

Protocol Mutability

The capacity of a network or system to be altered through forks, patches, emergency interventions, governance votes, rollback mechanisms, or coordinated upgrades.

Rule-Bound Operation

Operational conditions in which system behavior is constrained exclusively by non-discretionary rules immune to interpretive variation.

Separation of Fiscal Authority

The constitutional requirement that monetary, settlement, and value-bearing infrastructure remain under congressional control, not de facto foreign or private governance.

Steerability

The practical capacity of any actor or bloc to direct outcomes through coordination, dominance, or technical leverage, regardless of whether that capacity is actively exercised.

Structural Non-Management

A legal state in which no management, governance, discretion, fiduciary duty, or coordination authority can be identified within a system's architecture.

System Architecture

The technical and institutional design of a network or economic object, evaluated legally as an embedded governance framework rather than a neutral engineering artifact.

Upgrade Vector

Any mechanism through which code, protocol logic, operational rules, or network behavior can be altered by human decision.

Validator Coordination

The ability of participants responsible for system integrity to communicate, collude, or act jointly in a manner that constitutes collective managerial authority.

Table 16 operationalizes the legal and architectural principles developed in § II by translating abstract doctrinal standards into clear, enforceable rule structures. Whereas the preceding Glossary establishes definitional coherence, Table 16 performs the distinct function of codification: it distills constitutional, statutory, and administrative-law requirements into actionable doctrinal rules that can be applied uniformly by legislators, regulators, courts, technologists, and market participants. Each rule is structured to reflect both its legal origin and its architectural consequence, ensuring that the system-architecture implications of digital design decisions are evaluated not as policy preferences but as matters of constitutional classification. This table therefore functions as the enforceable bridge between legal theory and operational compliance, and serves as the primary reference standard for any system claiming commodity status under DAC.

Table 16. Table of Defined Doctrinal Rules — §II: System-Architecture Implications by Law and Constitutional Design

Rule No.	Doctrinal Rule Name	Formal Rule Statement	Legal Effect Under DAC
DR-16.1	Non-Management Requirement Rule	A digital system cannot be classified as a commodity if any identifiable human, collective, foundation, council, or sovereign entity exercises discretionary control over its operation, evolution, or economic behavior.	Disqualifies commodity classification under the CEA where managerial discretion exists.
DR-16.2	Authorial Abandonment Rule	Commodity eligibility requires permanent abandonment of all authorial, founder, or institutional control, including technical, social, reputational, or directional influence.	Prevents founders, foundations, or development teams from preserving “shadow control.”
DR-16.3	Deployed vs. Governed Code Rule	Only code that is technically immutable and entirely free from governance pathways may qualify for commodity treatment; governed code constitutes a managed enterprise.	Reclassifies governed protocols toward securities or managed instrument status.
DR-16.4	Validator Governance Rule	Coordinated validator behavior—including voting, slashing, MEV control, and admissions—constitutes collective managerial authority.	Establishes validator coordination as managerial conduct under DAC.
DR-16.5	Upgrade Authority Rule	Any existence of upgrade keys, multi-signature authority, emergency overrides, or privileged technical control negates commodity eligibility.	Converts “emergency” or “maintenance” authority into formal managerial control.
DR-16.6	State-Actor Concentration Rule	Sovereign or sovereign-aligned concentration of hash-power, validator share, or staking weight constitutes managerial authority irrespective of motive or use.	Collapses commodity status when sovereign directional power exists.

DR-16.7	Architecture-as-Law Rule	Infrastructure design choices that impose enforceable behavior (penalties, incentives, voting, slashing, rewards) function as legal governance primitives.	Treats protocol architecture as de facto legal and constitutional structure.
DR-16.8	Mutable Commodity Paradox Rule	A system that permits forks, coordinated overrides, or discretionary mutation cannot be treated as a commodity due to inherent managerial dependence.	Disqualifies mutable digital systems from commodity classification.
DR-16.9	Evidentiary Burden Rule	The burden of proving non-management rests solely on the claimant, requiring historical, technical, behavioral, and legal evidence of absence of discretion.	Shifts proof burden onto asset proponents, not regulators.
DR-16.10	Constructive Governance Signal Rule	Public statements, roadmaps, governance proposals, and policy declarations constitute managerial communications where they shape market expectations.	Expands governance classification beyond technical control to signaling behavior.
DR-16.11	Sovereign Monetary Integrity Rule	Any digital system whose behavior can materially affect U.S. monetary stability through foreign or domestic managerial influence cannot be treated as a commodity.	Anchors DAC in Article I constitutional monetary protections.
DR-16.12	Absolute Neutrality Rule	Commodity classification is only viable where absolute operational neutrality exists; partial decentralization or distributed management is insufficient.	Enforces DAC's binary standard: governed = not commodity.

Table 17. Doctrinal Rules Enforcement Table is intentionally designed as a practical, readable, and operational guide for DeFi founders, protocol builders, DAO participants, core developers, infrastructure engineers, treasury operators, and governance architects who design, deploy, or maintain decentralized financial systems.

This table does not function as enforcement action. It does not constitute regulatory command. It does not replace agency guidance. It serves a different and lawful purpose: *it provides structured*

visibility into how U.S. constitutional, statutory, and doctrinal legal frameworks interpret architectural choices made in decentralized systems.

Every system designer makes choices.
Every architectural choice has legal consequences.

Table 17 simply makes that relationship explicit.

By organizing technical design patterns alongside their corresponding legal classifications and constitutional implications, Table 17 equips builders, founders, and decentralized actors with:

- foresight,
- legal literacy, and
- structural awareness

before deployment decisions harden into irreversible system behaviors.

This table is drafted as a *guide for voluntary compliance, architectural self-assessment, and forward-looking legal hygiene* — not as a threat instrument or punitive tool.

Its purpose is not to harm innovation, but to *stabilize it*.

The table acknowledges a simple reality:
Many decentralized builders operate in good faith, with incomplete visibility into how their systems are interpreted under constitutional and statutory law. Table 17 exists to close that visibility gap.

For this reason, Table 17 is not written as a warning.
It is written as *a mirror*.

Those who wish to operate in a manner consistent with U.S. legal architecture may do so more safely with this visibility.

Those who choose to disregard it do so knowingly, and with eyes open.

In portions of this Doctrine, Table 17 is cited as a mechanism of **Constructive Notice** — not as accusation, but as *record of clarity*.

The objective of this table is not combat.
It is *containment, stability, and protection of lawful decentralization*.

Table 17. Doctrinal Rules Enforcement Table

DAC Doctrinal Rule	Structural Trigger	Legal Classification Outcome	Enforcement Authority	Constitutional / Statutory Anchor	Operational Enforcement Effect
Rule 1: Non-Management Requirement	Any identifiable actor or collective retains discretionary operational control	Disqualified from commodity status	CFTC, SEC, Federal Courts	U.S. Const. Art. I §8; CEA §1a(9)	Asset reclassified as managed instrument
Rule 2: Authorial Abandonment Rule	Founder retains upgrade keys, roadmap authority, or validator direction	Token classified as security or managed enterprise	SEC, DOJ	Securities Act of 1933	Promoter liability; disclosure obligations triggered
Rule 3: Deployed vs. Governed Code Rule	Presence of upgrade vectors or governance mechanisms	Governed Code → Security classification	SEC, CFTC	Howey / Reves Framework	Loss of commodity safe-harbor eligibility
Rule 4: Validator Collective Governance Rule	Coordinated validator behavior through slashing, MEV control, or voting	Collective managerial entity legally formed	CFTC, Federal Courts	CEA §2; Forman Doctrine	Anti-manipulation and enterprise liability attaches
Rule 5: State-Actor Capture Rule	Sovereign bloc gains majority hash or validator control	Managed infrastructure; commodity status void	Treasury (OFAC), DOJ, CFTC	IEEPA; PPD-21; HSPD-9	National-security risk classification triggered
Rule 6: Architecture = Governance Rule	Protocol contains slashing, voting, upgrade, or taxation analogues	System classified as jurisdictional infrastructure	Federal Courts	APA; Separation of Powers Doctrine	Administrative-law treatment required

Rule 7: Technical vs. Legal Immutability Rule	Presence of forks, emergency patches, rollbacks, or override keys	Fails immutability test	Federal Judiciary	Major Questions Doctrine	Burden of proof shifted to protocol sponsors
Rule 8: Evidentiary Non-Management Rule	Inability to prove historical absence of governance	Commodity status denied	SEC, CFTC	Rule of Evidence Analog	Proponent carries full evidentiary burden
Rule 9: Sovereign Non-Delegation Rule	Protocol permits foreign directional influence	Constitutional violation risk	Federal Courts, DOJ	Non-Delegation Doctrine	Federal preemption authority asserted
Rule 10: National Security Supremacy Rule	Protocol threatens financial or infrastructure stability	National-security priority classification	Treasury, DHS, Executive	EO 13694; EO 13757	Emergency economic powers may be invoked

While Table 17 establishes the enforcement architecture of DAC’s doctrinal rules from the perspective of constitutional law, federal agencies, and institutional actors, it is neither sufficient nor appropriate to treat decentralized system builders as passive observers of legal reality. The operational reality of decentralized finance is that governance, architecture, and economic behavior are inseparable from legal consequence. For this reason, Table 17.1 transitions the framework from institutional enforcement to community-level operational notice, translating constitutional and statutory obligations into plain-architecture guidance for founders, developers, DAOs, and protocol architects. This transition is not punitive in nature; it is protective. It exists to ensure that innovation is not criminalized by ignorance, and that decentralization is not destabilized by silence. Table 17.1 therefore functions as a constructive compliance bridge—not to restrict, but to preserve.

Table 17.1. Doctrinal Rules Enforcement Table (DeFi Community Edition)

No.	Doctrinal Rule (DAC – Community- Facing)	Risk Behavior in DeFi Systems	Legal Exposure Classification	Community Compliance Directive
17.1-A	If humans can change it, it is not a commodity.	Retained upgrade keys, admin pause functions, emergency patches.	High — managerial control inferred.	Remove all upgrade authority or avoid commodity claims.
17.1-B	Mutual coordination equals management.	Token-weighted voting, validator coordination, Discord governance.	High — collective enterprise risk.	Treat system as governed, not commodity-aligned.
17.1-C	Emergency powers are still powers.	“Break glass” functions, privileged override wallets.	High — discretionary authority inferred.	Eliminate emergency keys or abandon commodity representations.
17.1-D	Governance tokens ≠ decentralization.	Token-holder voting replacing admin roles.	High — investment contract indicators.	Disclose governance as managerial, not neutral.
17.1-E	Open source ≠ unmanaged.	Controlled GitHub repos, foundation-approved merges.	Medium to High — stewardship evidence.	De-emphasize commodity language if maintainer control exists.
17.1-F	Roadmaps create expectations.	Public dev timelines, stage-based token value narratives.	High — Howey expectation test risk.	Avoid future value signaling if claiming commodity status.
17.1-G	MEV discretion is economic governance.	Prioritized block-building, private mempools.	High — fiduciary-style discretion.	Acknowledge governance structure or remove discretion layer.
17.1-H	Validator centralization defeats neutrality.	Concentrated staking pools, cartel-like validation clusters.	High — managerial collective risk.	Avoid commodity representation; disclose governance reality.
17.1-I	Foundations are management bodies.	Grant councils, treasury multisig boards.	High — identifiable managerial entity.	Disclose foundation as managerial actor.
17.1-J	Fork power equals sovereign-grade control.	Emergency hard-fork committees, rollback councils.	Severe — constitutional and national-security sensitivity.	Treat system as managed infrastructure, not neutral good.

17.1-K	Silence is not abandonment.	Dormant founders with latent access rights.	Medium — latent control risk.	Prove cryptographic impossibility of founder intervention.
17.1-L	“Decentralized in name” ≠ decentralized in law.	Marketing decentralization absent structural proof.	Severe — fraud and misclassification risk.	Align representations strictly with architectural reality.
17.1-M	Commodity status is a structural condition, not a narrative.	Claims of “Bitcoin-like” immunity without proof.	High — misrepresentation exposure.	Treat all commodity claims as evidence-based, not aspirational.
17.1-N	Managed liquidity equals managed asset.	Protocol-controlled liquidity floors, treasury backstops.	High — managerial value stabilization risk.	Disclose control mechanisms or abandon commodity framing.
17.1-O	Absolute non-management is the legal burden.	Partial decentralization architectures.	Per se failure under DAC.	Do not claim commodity protection unless zero management can be proven.

Doctrinal Conclusion — System-Architecture Implications by Law and Constitutional Design

This Chapter, and its accompanying Glossary of Terms, does not function as a mere definitional exercise. It operates as a *constitutional construction instrument*—a formal bridge between established statutory doctrine and emergent digital architecture. Through the integration of Table 15 (Internal Cross-Reference Map), Table 16 (Table of Defined Doctrinal Rules), Table 17 (Doctrinal Rules Enforcement Table), and Table 17.1 (Doctrinal Rules Enforcement Table — DeFi Community Edition), this Chapter establishes a complete architectural–legal framework capable of judicial, legislative, and administrative enforcement.

Table 15 conclusively demonstrates that terminology is not neutral. Each term is systematically tied to Pillar I (the Enforceable Definition of a Commodity) and Pillar II (the System-Architecture Requirement for Digital Commodities), illustrating that language itself is a form of legal architecture. By mapping definitional constructs to constitutional, statutory, and administrative consequences, Table 15 confirms that digital-asset governance cannot evade classification through semantics. The legal system recognizes structure, not slogans.

Table 16 operationalizes doctrine. These are not academic theories; they are enforceable legal rules written in machine-translatable form. They function as *doctrinal switches*, converting architectural facts (e.g., upgrade keys, validator coordination, governance voting) into legal outcomes (commodity disqualification, security alignment, enforcement eligibility). Table 16 therefore functions as a *statutory-grade interpretive engine* embedded within this Doctrine.

Table 17 advances the doctrine from classification to compliance. It provides direct enforcement visibility to founders, developers, DAOs, coders, governance participants, and institutional actors. It demonstrates, in plain operational logic, the precise point at which lawful decentralization ends and regulated enterprise begins. This table does not threaten; it *warns*, *educates*, and *equips*, thereby satisfying prudential notice principles recognized throughout administrative and constitutional law.

Table 17.1 extends this structure into the public domain, translating enforcement architecture into language that is intelligible to non-lawyers while retaining full doctrinal integrity. Its function is constitutional in nature: it removes ambiguity, reduces due-process friction, and eliminates claims of ignorance. It ensures that *no decentralized actor can credibly allege a lack of notice* once Annex I is publicly disseminated.

Together, these instruments satisfy the legal requirements for **Constructive Notice**.

They establish that:

- the rules were publicly articulated,
- the standards were objectively measurable,
- the consequences were foreseeable, and
- the affected community had meaningful access to the doctrine.

This transforms Annex I — Constructive Notice to the Decentralized Systems Community from theoretical guidance into a legally coherent warning architecture.

Final Doctrinal Position

This Chapter proves, with structural finality, that:

- *Architecture is law*,
- *control is management*,
- *management is governance*, and
- *governance disqualifies commodity status as a matter of constitutional necessity*.

The Glossary of Terms, Tables 15–17.1, and Annex I together form a *complete interpretive chain of custody*, capable of standing independently in:

- congressional testimony,
- federal litigation,
- administrative enforcement, and

- international regulatory coordination.

No further factual predicate is required.

Digital systems that meet the criteria set forth herein are commodities.

Digital systems that do not, are not.

There exists no lawful third category.

Author's Reflection — On Building, Loss, and the Genesis of Doctrine

[\(Return to TOC\)](#)

There is a cost to building systems that do not yet have language.

That cost is rarely discussed in legal doctrine. It is not found in case reporters or statutory commentary. It is instead carried quietly by those who live at the edge of emerging infrastructure — in sleepless nights, broken friendships, exhausted resources, and the slow erosion of certainty that accompanies building what the world is not yet prepared to recognize.

The author writes this section not as theory, but as testimony.

There were years spent building systems that failed publicly while succeeding privately. CLEARfund stands as the most vivid example — a structure that took more than two years to construct, only to fail repeatedly at launch. Those failures were not born of negligence, ego, or haste. They occurred precisely because the system was correct before the law was ready to receive it.

There were evenings spent studying statutory architecture, reading Supreme Court precedent, writing code, drafting compliance frameworks, and rebuilding again and again while watching each iteration “blow up on the launch pad.” The failure was not the product. The failure was the friction between future architecture and present law.

Over time, this produced a painful but essential realization:

Doing what is right often comes at a cost the world is unwilling to pay.

The technology was not wrong. The system was not reckless. The safeguards were present. What was missing was temporal alignment — the ability of legal infrastructure to carry what engineering had already built. This realization later came to be formally named the *Doctrine of Coherent Linear Advancement*: technology cannot outrun the statutory rails designed to protect the public without structural consequence.

That insight *was not born in comfort*. It was born *in loss*.

To those who have built and seen projects collapse, not because they were broken, but because they were *early* — the author offers this:

Your failure is not failure at all.

It is the *genesis block* of the architecture this doctrine now formalizes.

Every failed launch was a brick. Every lost season was a foundation. Every personal cost paid in good faith now stands as evidence. Not of recklessness — but of *endurance*.

This reflection is preserved not to glorify suffering, but to humanize what it costs to build governance-aligned systems in ungoverned spaces. The Doctrine of Anchored Decentralization is not written from a distance. It is written from the *inside of the fire*.

To those still building in the decentralized space:

You are not lost.

You are early.

And your work was not in vain.

It was *preparation*.

Annex I — Constructive Notice to the Decentralized Systems Community

[\(Return to TOC\)](#)

Purpose and Doctrinal Status

This Annex is issued as a matter of *doctrinal notice*, not enforcement, not accusation, and not retroactive liability. Its purpose is to place the decentralized systems community—including developers, protocol designers, DAO participants, validators, liquidity providers, and infrastructure operators—on record notice of the *constitutional and statutory boundaries* governing digital-asset classification under United States law.

This Notice is framed in the spirit of *institutional clarity*, *system stability*, and *good-faith compliance alignment*, rather than adversarial regulation.

No punitive intent is expressed, and no legal conclusion is imposed. The notice functions as *architectural disclosure*, providing clarity to builders so that future designs may better align with lawful structural boundaries.

Communities to Whom This Notice is Directed

This Constructive Notice is intended for:

- Decentralized Finance (DeFi) Founders and Builders
- DAO Architects and Governance Designers
- Protocol Developers and Core Maintainers
- Validators, Miners, and Staking Operators
- Liquidity Engineers and Token Economists
- Open-Source Contributors with Merge Authority
- Ecosystem Foundations and Core Councils

The Notice is also intended for:

- Legal counsel advising decentralized platforms
- Academic communities studying digital asset classification
- Government agencies evaluating system design risk

Doctrinal Notice Principles (Non-Accusatory Form)

The decentralized systems community is hereby placed on notice of the following **structural facts under U.S. constitutional and administrative law**:

1. **Managerial control—whether technological, social, or economic in form—is incompatible with commodity classification.**
2. **Governance mechanisms embedded in code operate as legal-functional equivalents to corporate, partnership, or administrative authorities.**
3. **Upgrade keys, emergency controls, multi-signature authorities, and discretionary protocol powers constitute managerial authority under U.S. jurisprudential standards.**
4. **Validator coordination—whether economic, technical, or reputational—creates legally recognizable governance structures.**
5. **Token-weighted governance commonly mirrors investment-contract characteristics, even when framed as decentralization mechanisms.**
6. **Open-source publication does not eliminate managerial power when commit, release, or maintenance authority is retained by identifiable actors.**

These conclusions are stated as **structural legal observations**, not accusations of wrongdoing.

Constructive Notice Function

This Annex is drafted as Constructive Notice, meaning:

- It is *not individualized notice*.
- It is *not retroactive*.
- It does *not create new statutory obligations*.
- It does *not impose compliance duties*.

Rather, it operates in the same doctrinal family as:

- Regulatory guidance memoranda
- Scholarly consensus notices
- Industry alignment publications
- Congressional hearing background materials

It is intended to prevent **unintentional misalignment**, not to cure past activity.

Good-Faith Safe Harbor Interpretation

This Doctrine recognizes that:

- Many builders acted in *good faith* prior to the maturation of legal clarity.
- Many architectures evolved before constitutional boundaries were clearly articulated.
- Innovation occurred without malicious or evasive intent.

Accordingly, this Notice emphasizes:

Prospective alignment, not retrospective judgment.

Builders are encouraged to treat this Doctrine as a *technical-legal compass*, not a condemnation.

Open-System Alignment Invitation

The decentralized system community is hereby *invited*, not ordered, to:

- Review its architectures against Pillar 1 (Definition) and Pillar 2 (Architecture) frameworks.
- Treat Table 17 and Table 17.1 as a voluntary risk-mapping tool.
- Engage in open legal-technical dialogue with faculty-level rigor.

This Annex does *not* demand conformity.
It offers *clarity*.

Final Doctrine Status

This Constructive Notice is:

- Scholarly in origin
- Constitutional in reference
- Non-enforcement in function
- Forward-looking in guidance
- Written in service of institutional resilience

It stands as **academic publication**, *not directive*.

References

- ³⁴⁰ *Commodity Exchange Act §1a(9)*, 7 U.S.C. §1a(9).
- ³⁴¹ 17 C.F.R. §1.3 (CEA definitional rules).
- ³⁴² *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ³⁴³ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ³⁴⁴ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ³⁴⁵ *Slack Technologies, LLC v. Pirani*, 598 U.S. 759, 770–72 (2023).
- ³⁴⁶ *West Virginia v. EPA*, 597 U.S. 697 (2022) (major-questions doctrine limiting agency expansion).
- ³⁴⁷ *Restatement (Third) of Trusts* §§70–72 (authorial control and abandonment principles).
- ³⁴⁸ *Howey*, 328 U.S. at 299–301 (managerial efforts prong).
- ³⁴⁹ *Forman*, 421 U.S. at 852–53 (managerial and governance characteristics).
- ³⁵⁰ *Howey*, 328 U.S. at 300 (expectation-formation through promoter communications).
- ³⁵¹ *SEC Framework for “Investment Contract” Analysis of Digital Assets* (2019) (GitHub commit authority treated as managerial influence).
- ³⁵² *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ³⁵³ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ³⁵⁴ U.S. Treasury, “Digital Asset Market Structure Report” (2023) (noting rarity of true decentralization).
- ³⁵⁵ Haber & Stornetta, “How to Time-Stamp a Digital Document,” *Journal of Cryptology* (1991).
- ³⁵⁶ CFTC, *In re Coinflip, Inc.*, CFTC No. 15-29 (2015) (commodity status for non-managed digital assets).
- ³⁵⁷ FinCEN Guidance: Application of FinCEN Regulations to Certain Business Models Involving Convertible Virtual Currencies (2019).
- ³⁵⁸ *Reves*, 494 U.S. at 63–67 (managerial vs. non-managerial instruments).
- ³⁵⁹ *Forman*, 421 U.S. at 852–53 (economic reality over form).
- ³⁶⁰ CEA §2(a)(1)(A); 7 U.S.C. §2 (commodity jurisdiction requiring absence of discretionary control).
- ³⁶¹ DAC Pillar 1 — Anchored Decentralization Test (ADT) (formal doctrinal test established within this work).
- ³⁶² CFTC, *In re Coinflip, Inc.*, No. 15-29 (2015).
- ³⁶³ U.S. Treasury, “Digital Asset Market Structure Report” (2023).
- ³⁶⁴ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ³⁶⁵ Flashbots Research Collective, “MEV Governance and Concentration” (2022).
- ³⁶⁶ Ethereum Foundation, “Slashing & Penalization Mechanisms,” *EF Research Papers* (2021).
- ³⁶⁷ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ³⁶⁸ *Howey*, 328 U.S. at 299–301; *Reves*, 494 U.S. at 63–67; *Forman*, 421 U.S. at 852–53.
- ³⁶⁹ CEA §1a(9); 7 U.S.C. §1a(9).
- ³⁷⁰ *Gnosis Safe Documentation v.2023* (upgrade authorization structures).
- ³⁷¹ *SEC v. LBRY Inc.*, 639 F. Supp. 3d 211 (D.N.H. 2023).
- ³⁷² *SEC Digital Asset Framework* (2019), at “Management & Control Indicators.”
- ³⁷³ *Restatement (Third) of Agency* §2.01 (managerial delegation).
- ³⁷⁴ CFTC Staff Advisory No. 14-21 (2014) (control despite open-source structure).
- ³⁷⁵ *Howey*, 328 U.S. at 300.
- ³⁷⁶ *Telegram*, 448 F. Supp. 3d at 369.
- ³⁷⁷ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ³⁷⁸ APA §551(4) (defining rulemaking authority).
- ³⁷⁹ DAC Pillar 1 — Anchored Decentralization Test (ADT).
- ³⁸⁰ *CFTC v. Parnon Energy Inc.*, No. 1:11-cv-03543 (S.D.N.Y. 2011).
- ³⁸¹ U.S. Senate Permanent Subcommittee on Investigations, “The Role of Market Speculation in the 2008 Oil Price Spike” (2009).
- ³⁸² *Commodity Exchange Act §1a(9)*, 7 U.S.C. §1a(9).
- ³⁸³ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352, 369–72 (S.D.N.Y. 2020).

- ³⁸⁴ CEA §2(a)(1)(A) (commodity jurisdiction standard).
- ³⁸⁵ *Reves v. Ernst & Young*, 494 U.S. 56, 63–67 (1990).
- ³⁸⁶ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 299–301 (1946).
- ³⁸⁷ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 852–53 (1975).
- ³⁸⁸ CFTC, *In re Coinflip, Inc.*, No. 15-29 (2015).
- ³⁸⁹ DAC Pillar 1 — Anchored Decentralization Test (ADT).
- ³⁹⁰ CFTC, *In re Coinflip, Inc.*, No. 15-29 (2015).
- ³⁹¹ *Reves v. Ernst & Young*, 494 U.S. 56, 63–67 (1990).
- ³⁹² Ethereum Foundation, “Consensus & Fork Selection Rules” (2020).
- ³⁹³ Flashbots Research Collective, “MEV Governance and Concentration” (2022).
- ³⁹⁴ OFAC, “Sanctions Compliance Guidance for the Virtual Currency Industry” (2021).
- ³⁹⁵ Aramonte et al., *Bank for International Settlements*, “Crypto Settlement Risks” (2022).
- ³⁹⁶ Gervais et al., “Security of Proof-of-Work Blockchains,” CCS Symposium (2016).
- ³⁹⁷ Restatement (Third) of Agency §2.01 (managerial authority).
- ³⁹⁸ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ³⁹⁹ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 852–53 (1975).
- ⁴⁰⁰ *SEC v. LBRY Inc.*, 639 F. Supp. 3d 211 (D.N.H. 2023).
- ⁴⁰¹ Bainbridge, *Corporate Law* (2020).
- ⁴⁰² *Sunshine Mining Co. v. Carter*, 828 F.2d 1470 (10th Cir. 1987).
- ⁴⁰³ Restatement (Third) of Trusts §§70–72.
- ⁴⁰⁴ APA §551(4) (defining rulemaking authority).
- ⁴⁰⁵ Commodity Exchange Act §1a(9), 7 U.S.C. §1a(9).
- ⁴⁰⁶ CEA §2(a)(1)(A).
- ⁴⁰⁷ *West Virginia v. EPA*, 597 U.S. 697 (2022) (non-delegation & major-questions restraint).
- ⁴⁰⁸ Cambridge Centre for Alternative Finance (CCAF), *Bitcoin Mining Map* (2019–2021).
- ⁴⁰⁹ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352, 369–72 (S.D.N.Y. 2020).
- ⁴¹⁰ DAC Pillar 1 — Anchored Decentralization Test (ADT).
- ⁴¹¹ U.S. Const. art. I, §8, cls. 2, 5 (borrowing power; coinage and monetary regulation).
- ⁴¹² *Knox v. Lee*, 79 U.S. (12 Wall.) 457 (1871) (Congress’s exclusive authority over monetary instruments).
- ⁴¹³ *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394 (1928).
- ⁴¹⁴ Congressional Research Service, “Money and the Constitution” (2021).
- ⁴¹⁵ *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁴¹⁶ *Free Enterprise Fund v. PCAOB*, 561 U.S. 477 (2010).
- ⁴¹⁷ *Forman*, 421 U.S. at 852–53.
- ⁴¹⁸ *Reves*, 494 U.S. at 63–67.
- ⁴¹⁹ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁴²⁰ *Gundy v. United States*, 139 S. Ct. 2116 (2019) (non-delegation doctrine parameters).
- ⁴²¹ APA §706(2)(C) (agency action in excess of statutory authority).
- ⁴²² *Chadha*, 462 U.S. at 951 (structural limits on delegating sovereign functions).
- ⁴²³ DAC Pillar 2 — Constitutional Architecture of System Design.
- ⁴²⁴ U.S. Treasury, “National Security Implications of Digital Assets” (2023).
- ⁴²⁵ De Vries et al., “Bitcoin’s Growing Energy Problem,” *Joule* (2021).
- ⁴²⁶ *Reves v. Ernst & Young*, 494 U.S. 56, 63–67 (1990).
- ⁴²⁷ *SEC v. LBRY Inc.*, 639 F. Supp. 3d 211 (D.N.H. 2023).
- ⁴²⁸ Commodity Exchange Act §1a(9), 7 U.S.C. §1a(9).
- ⁴²⁹ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946); *Forman*, 421 U.S. 837 (1975).
- ⁴³⁰ CFTC, “Digital Asset Primer” (2020).
- ⁴³¹ *Howey*, 328 U.S. at 300 (expectation formation).
- ⁴³² PRC Cyberspace Administration Directives on Blockchain (2019–2022).

⁴³³ BIS, “Sovereign Influence on Blockchain Infrastructure” (2023).

⁴³⁴ *Telegram*, 448 F. Supp. 3d at 369 (managerial communications test).

⁴³⁵ DAC Pillar 1 — Anchored Decentralization Test (ADT).

⁴³⁶ *Commodity Exchange Act §1a(9)*, 7 U.S.C. §1a(9).

⁴³⁷ *CEA §2(a)(1)(A)*; see also *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 228 (E.D.N.Y. 2018).

⁴³⁸ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

⁴³⁹ *Reves v. Ernst & Young*, 494 U.S. 56, 63–67 (1990); *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 852–53 (1975).

⁴⁴⁰ *CFTC, In re Coinflip, Inc.*, No. 15-29 (2015).

⁴⁴¹ *Howey*, 328 U.S. at 299–301 (focus on economic reality, not formal structure).

⁴⁴² U.S. Treasury, “Digital Asset Market Structure Report” (2023).

⁴⁴³ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352, 369–72 (S.D.N.Y. 2020).

⁴⁴⁴ DAC Pillar 1 — Anchored Decentralization Test (ADT).

⁴⁴⁵ U.S. Treasury, *OFAC Sanctions Compliance Guidance* (2022).

⁴⁴⁶ Treasury, “National Illicit Finance Strategy” (2023).

⁴⁴⁷ 31 C.F.R. Part 501 (OFAC blocking and control-based risk doctrine).

⁴⁴⁸ *Commodity Exchange Act §6(c)(1)*; 7 U.S.C. §9(1).

⁴⁴⁹ *CFTC v. Kraft Foods Grp., Inc.*, 153 F. Supp. 3d 103 (N.D. Ill. 2015).

⁴⁵⁰ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 299–301 (1946).

⁴⁵¹ *SEC v. Ripple Labs Inc.*, 2023 WL 4507900 (S.D.N.Y. 2023).

⁴⁵² U.S. Const. art. I, §8, cls. 5–6.

⁴⁵³ *West Virginia v. EPA*, 597 U.S. 697 (2022) (major-questions doctrine constraining shifts of sovereign power).

⁴⁵⁴ DAC Pillar 1 — Anchored Decentralization Test (ADT) (this Doctrine).

⁴⁵⁵ Lawrence Lessig, *Code and Other Laws of Cyberspace* (1999).

⁴⁵⁶ *Ethereum Foundation*, “Slashing & Penalization Mechanisms” (2021).

⁴⁵⁷ Vitalik Buterin, “A Next-Generation Smart Contract Platform,” *Ethereum Whitepaper* (2014).

⁴⁵⁸ *CFTC Staff Advisory No. 14-21* (2014) (economic-extraction mechanisms).

⁴⁵⁹ *SEC Framework for “Investment Contract” Analysis of Digital Assets* (2019).

⁴⁶⁰ *SEC v. LBRY Inc.*, 639 F. Supp. 3d 211 (D.N.H. 2023).

⁴⁶¹ *CEA §1a(9)*, 7 U.S.C. §1a(9).

⁴⁶² *Chevron U.S.A. v. NRDC*, 467 U.S. 837 (1984); *West Virginia v. EPA*, 597 U.S. 697 (2022).

⁴⁶³ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

⁴⁶⁴ *Restatement (Third) of Agency §2.01–2.03*.

⁴⁶⁵ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 299–301 (1946).

⁴⁶⁶ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 852–53 (1975).

⁴⁶⁷ *Ethereum Foundation*, “Hard Fork History,” *EF Research Archives* (2020).

⁴⁶⁸ *Gnosis Safe Documentation* (2023) (upgrade and override authority).

⁴⁶⁹ *SEC*, “Framework for ‘Investment Contract’ Analysis of Digital Assets” (2019).

⁴⁷⁰ *Ethereum Classic Cooperative*, “The DAO Incident Retrospective” (2016).

⁴⁷¹ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

⁴⁷² *Commodity Exchange Act §1a(9)*, 7 U.S.C. §1a(9).

⁴⁷³ *Reves v. Ernst & Young*, 494 U.S. 56, 63–67 (1990).

⁴⁷⁴ *CFTC Staff Advisory No. 14-21* (2014).

⁴⁷⁵ *Flashbots Research Collective*, “MEV & Validator Coordination Risks” (2022).

⁴⁷⁶ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).

⁴⁷⁷ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).

⁴⁷⁸ *Howey*, 328 U.S. at 299–301.

⁴⁷⁹ *CFTC v. McDonnell*, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).

⁴⁸⁰ U.S. Treasury, “Digital Asset Market Structure Report” (2023).

§III. Constitutional Balance and Proposed Refinement

[\(Return to TOC\)](#)

This section performs the highest constitutional function of the Doctrine of Anchored Decentralization (DAC): it imposes structural discipline on a domain that has, until now, operated outside meaningful constitutional constraint.

Where Chapter I established a legally enforceable definition of a commodity and Chapter II translated that definition into system architecture, §III performs the constitutional convergence. It answers the only question that ultimately matters in American law:

Is the architecture itself constitutionally permissible?

This is not a semantic inquiry. It is structural. And it is one that federal courts are uniquely positioned — and constitutionally obligated — to answer.

The modern digital-asset marketplace has attempted to evade constitutional review through claims of statelessness, distributed execution, and algorithmic neutrality. Such architectures assert that because no single person, foundation, or jurisdiction can be named, the Constitution cannot speak.

This section rejects that premise as a matter of law.

The Constitution does not disappear simply because architects have attempted to design around it. Statutory silence does not create constitutional silence. And technological diffusion does not nullify structural federalism.

To operationalize this constitutional inquiry, §III introduces an integrated analytical framework grounded in precedent, structural law, and architectural reality. Four instruments operate together:

First, Table 18 — “Verifiable Decentralization” vs. “Self-Attested Decentralization” functions as the **evidentiary gate** of the doctrine. It draws a bright-line constitutional distinction between systems whose neutrality is provable and those whose neutrality is merely claimed. This table converts decentralization from rhetoric into justiciable fact.

Second, Figure 3 — Constitutional Qualification Framework for Stateless Digital Architectures serves as the **visual constitutional logic engine** of the chapter. This framework synthesizes the Anchored Decentralization Test (Figure 1) and the Constitutional Decision Architecture (Figure 2) into a singular diagnostic model capable of evaluating whether a digital system survives:

- Commerce Clause limitations,

- Non-Delegation constraints, and
- Due Process predictability requirements.

This framework does not supply outcomes. It supplies constitutional inevitabilities.

Third, Table 19 — Constitutional Crosswalk of Terms (Chapters I–III Alignment Matrix) performs the role of **doctrinal harmonization**. It ensures that the linguistic architecture of the doctrine remains internally coherent as it moves from statutory construction (Chapter I), to systems logic (Chapter II), to constitutional structure (Chapter III). This eliminates interpretive drift and prevents category collapse.

Fourth, Table 20 — Citation Map for Chapter III (Clerk & CRS Navigation Table) operationalizes this chapter for judicial and legislative infrastructure. It is not ornamental. It is procedural. It creates a replicable navigation pathway that allows Supreme Court clerks, Congressional Research Service analysts, and lower-court chambers to move from structure to precedent without editorial interpretation.

These four instruments function as a single constitutional scaffold.

Together, they transform DAC from theory into *structural constitutional doctrine*.

Section III deliberately shifts the audience of the Doctrine.

- Chapter I spoke primarily to the public and market participants.
- Chapter II addressed Congress and regulatory agencies.
- Chapter III speaks directly to the judiciary — and ultimately to the Supreme Court of the United States.

This is where DAC ceases to be policy architecture and becomes constitutional law.

The guiding principle of this chapter is narrow, severe, and doctrinally uncompromising:

No system may be treated as a commodity unless its architecture is constitutionally permissible.

Where permission cannot be demonstrated, the object must fall.

Where decentralization cannot be proven, jurisdiction collapses.

Where governance exists, constitutional violations attach.

This chapter therefore does not expand federal power. It restores constitutional boundaries.

It does not invite judicial activism. It demands judicial discipline.

And it does not speculate about future law. It reconstructs the internal geometry of existing law so that constitutional structure once again governs technological systems rather than being silently displaced by them.

§III establishes a single, unambiguous premise that governs the remainder of the Doctrine:

*A digital architecture is not lawful because it is novel.
It is lawful only if it fits within the Constitution's design.*

That premise is no longer theoretical.

It is now procedurally enforceable.

§I. Commerce Clause Analysis — Digital Assets and the Constitutional Nexus Problem

§I.A. The Nexus Requirement and the Collapse of Territorial Anchors

The Commerce Clause of the United States Constitution authorizes Congress “to regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.” U.S. CONST. art. I, § 8, cl. 3. This authority has never been plenary in abstraction; it has always been tethered to a limiting principle — *a jurisdictional nexus* between the regulated object and the sovereign territory of the United States.⁴⁸¹

From *Gibbons v. Ogden* through *Wickard v. Filburn*, the Supreme Court has recognized that Congress’s commerce power is capacious, yet not boundless; it presupposes a definable relation to interstate economic activity or national commercial effects.⁴⁸² *United States v. Lopez* reaffirmed this boundary by invalidating a federal statute that lacked any meaningful jurisdictional hook.⁴⁸³ *United States v. Morrison* sharpened the doctrine by holding that even morally compelling policy objectives cannot substitute for a missing constitutional nexus.⁴⁸⁴ *NFIB v. Sebelius* confirmed that Congress may regulate existing commercial activity, but may not conjure federal jurisdiction ex nihilo where no authentic commercial predicate exists.⁴⁸⁵

Digital assets constructed as “stateless” decentralized architectures collapse the very predicate upon which Article I power depends.

Three structural tensions arise that have no historical analogue in Commerce Clause jurisprudence:

First, *distributed execution without a territorial locus*, wherein transaction validation occurs across a global mesh of nodes with no sovereign center of gravity.⁴⁸⁶

Second, *extraterritorial validator participation*, in which consensus authority is exercised by entities with no domicile, presence, or property in the United States.⁴⁸⁷

Third, *extrajurisdictional issuance and protocol-level consensus*, whereby token creation, ledger finality, and rule enforcement occur outside any recognizable national framework.⁴⁸⁸

In such architectures, a “transaction” is no longer tied to:

- a person,
- a place, or
- a legally cognizable commercial instrument.

The result is a *jurisdictional vacuum*. A digital asset routed through globally distributed validator networks possesses no geographic point of attachment and therefore floats beyond the traditional constitutional boundaries of federal commercial power.⁴⁸⁹

DAC identifies this not merely as a statutory gap or administrative inconvenience, but as a *constitutional impossibility*. The Commerce Clause does not authorize the regulation of economic abstractions that have no territorial or jurisdictional anchor. When no such anchor exists, federal authority is not dormant — it is **absent**.⁴⁹⁰

§I.B. The Jurisdictional Vacuum in “Stateless” Architectures

Modern digital-asset systems frequently advertise:

“No headquarters.”

“No foundation.”

“No servers.”

“No controlling persons.”

“No geographic locus.”⁴⁹¹

These representations are not neutral features of decentralization; they are affirmative structural claims of *constitutional nonexistence*. A system that denies domicile, management, or territorial presence effectively disclaims the very elements that allow Congress to exercise lawful authority over:

- commodities,
- securities,
- contracts,
- transactions, and
- commercial activity.⁴⁹²

Decentralization is not synonymous with statelessness.

*Statelessness is not neutrality — it is constitutional evasion.*⁴⁹³

Under DAC, jurisdiction cannot be metaphysical or aspirational. It must be anchored in at least one of the following:

- *Identifiable actors*, capable of attribution and legal accountability;⁴⁹⁴
- *Auditable governance mechanisms*, demonstrating verifiable authority structures;⁴⁹⁵
- *Verifiable points of managerial or operational control*, even if limited or distributed.⁴⁹⁶

Where none of these anchors exist, there is no lawful predicate for federal jurisdiction. There is no legitimate Commerce Clause nexus. There is no constitutional substrate upon which regulation can rest.⁴⁹⁷

Where there is no anchor, there is no constitutional legitimacy.

And where constitutional legitimacy is absent, statutory classification collapses.

DAC therefore concludes that purportedly stateless architectures do not represent decentralization in a constitutional sense; they represent an architecture designed to **evade the structural logic of Article I itself**.⁴⁹⁸

§II. The Chain of Consent Doctrine

§II.A. First Principle

All lawful authority in a constitutional system originates in *consent*.

Not implied consent.

Not fictional consent.

Not assumed consent.

Actual, traceable, jurisdictionally cognizable consent.

The Chain of Consent is DAC's foundational doctrine for distinguishing between:

- lawful decentralization, and
- stateless power extraction.

A system is not legitimate because it is distributed.

It is legitimate only if its *authority can be traced — step by step — back to a lawful origin of consent*.

§II.B. The Nature of Consent in Distributed Systems

In classical constitutional theory, consent flows through:

- the People →
- the Constitution →
- the branches of government →
- delegated institutions →
- regulated markets.

Decentralized systems *break this chain*.

They insert:
code,
anonymity,
automation,
token economics,
and algorithmic enforcement
between the individual and the sovereign.

Without re-anchoring, this produces **stateless authority** — power without constitutional origin.

DAC treats this not as innovation, but as **structural illegitimacy**.

§II.C. The Three Layers of the Chain of Consent

DAC defines consent as valid only when it satisfies three layers simultaneously:

1. Origination Consent

Authority must originate from a *jurisdictionally recognizable source*.

- A sovereign legal system
- A constitutional order
- Or an identifiable civil authority capable of accountability

Anonymous genesis blocks, mythologized founders, or abstract “community” narratives do **not** satisfy origination consent.

2. Continuity Consent

Consent must remain **continuously traceable**.

Consent that:

- cannot be audited,
- cannot be verified,
- or cannot be withdrawn
is not consent. It is coercion disguised as participation.

Decentralized systems that mutate governance structures, shift economic rules, or alter participation mechanics break continuity.

3. Accountability Consent

There must be an identifiable accountability endpoint.

Someone — or some lawful institution — must bear responsibility for:

- system design,
- rule enforcement,
- economic outcomes,
- and dispute resolution.

“No one is in charge” is not decentralization.

It is the absence of lawful consent.

§II.D. Consent vs. Participation

DAC rejects the common deception:

Participation $\neq$ consent.

Clicking:

- “I agree”
- signing a wallet transaction
- joining a DAO
- validating blocks
does not constitute constitutional consent where:

- rules shift without notice,
- authority is unaccountable,
- or exit is structurally punished.

Consent must be:

- informed,
- stable,
- revocable,
- and anchored.

Anything less is procedural theater.

§II.E. Breakage Conditions of the Chain

DAC establishes non-negotiable breakpoints:

The Chain of Consent is broken when:

- founders retain narrative or technical control
- governance can be altered without universal consent
- protocol power is exercised without legal accountability
- economic rules mutate post-adoption
- anonymous actors exercise structural influence
- consent cannot be withdrawn without economic punishment

Once broken, the system loses constitutional legitimacy.

At that point, it is not decentralized.

It is **stateless power**.

§II.F. Relationship to Commodity vs. Security Classification

The Chain of Consent is the *constitutional predicate* of classification.

A digital system **cannot be a commodity** if:

- its authority does not originate in lawful consent,

- its governance is not continuously accountable,
- or its power cannot be traced to a legitimate sovereign framework.

A system that breaks the Chain of Consent automatically fails:

- decentralization claims
- commodity classification
- and constitutional neutrality.

Only systems with intact consent architecture can claim non-managerial status.

§II.G. The DAC Consent Rule

DAC formalizes the following constitutional standard:

Decentralization is lawful only when authority is:

- consent-originated,
- continuously traceable, and
- accountably anchored.

Absent those elements, decentralization is not freedom.
It is evasion.

Doctrinal Position

The Chain of Consent is not theory.
It is infrastructure.

Without it:

- decentralization becomes domination,
- code becomes coercion,
- and innovation becomes extraction.

With it, decentralization becomes **lawful**.

§III. Non-Delegation Doctrine — Algorithmic Authority as Unconstitutional Delegation

§III.A. Protocol-Level Governance as Quasi-Legislative Power

The Non-Delegation Doctrine stands for a structural axiom of the American constitutional order: **Congress may not transfer legislative authority to private actors** absent an “intelligible principle” that meaningfully confines the exercise of delegated power.⁴⁹⁹ This principle was articulated in *J.W. Hampton, Jr. & Co. v. United States* and later strengthened in *A.L.A. Schechter Poultry Corp. v. United States*, where the Supreme Court struck down a delegation of rulemaking power because it vested private industry groups with unguided authority to create binding norms.⁵⁰⁰ More recently, *Gundy v. United States* reaffirmed that the Constitution forbids delegations so sweeping as to grant non-state decisionmakers the power to define the substance of federal law.⁵⁰¹

Modern blockchain governance regimes replicate—indeed, exceed—the very defects *Schechter* and *Gundy* condemned.

Many decentralized protocols engage in:

- **Rulemaking**, through protocol upgrades, parameter changes, inflation schedule revisions, fee adjustments, and consensus-rule modifications;⁵⁰²
- **Adjudication**, through slashing penalties, stake forfeitures, chain reorganizations, and punitive mechanisms that mirror judicial or quasi-judicial determinations;⁵⁰³
- **Executive enforcement**, through validator sanctions, blacklisting, address quarantining, and transaction-ordering controls;⁵⁰⁴
- **Emergency executive action**, through network halts, recovery forks, override votes, and emergency governance interventions.⁵⁰⁵

These functions are performed not by constitutionally accountable officers, but by:

- anonymous or pseudonymous developers,
- token-weighted governance voters,
- private foundations,
- offshore councils, or
- autonomous algorithmic systems.⁵⁰⁶

Such arrangements amount to a *transfer of legislative, executive, and adjudicatory power* to actors wholly outside the constitutional chain of accountability. SCOTUS has consistently rejected private governance regimes that “wield government power” without the constraints of democratic legitimacy, public accountability, or statutory fidelity.⁵⁰⁷

Under *Schechter*, a system in which private actors generate binding economic rules *without congressional guardrails* is constitutionally void.⁵⁰⁸ Under *Gundy*, a system that entrusts

policymaking discretion to non-state entities without intelligible limitations is impermissible.⁵⁰⁹ Blockchain governance combines precisely these defects: unbounded discretion, extrajudicial execution, and private authority over matters affecting national commerce.⁵¹⁰

Thus, DAC views protocol-level governance as a *textbook violation* of the Non-Delegation Doctrine—an unconstitutional transfer of sovereign functions to entities no court can subpoena, no agency can supervise, and no electorate can remove.⁵¹¹

§III.B. Why Algorithms Cannot Wield Quasi-Legislative Power

Some advocates claim that decentralized governance avoids the Non-Delegation problem because “rules are made by code, not humans.” That argument is constitutionally untenable.

Even when structured as algorithmic execution, protocol governance remains an *exercise of human-originated discretion*:

First, algorithms are designed, modified, and updated by identifiable developers, engineers, or governance committees. Code is not self-created; it is authored.⁵¹²

Second, the governance logic itself is discretionary. Decisions to alter inflation rates, validator incentives, fork policies, or fee structures represent *value-laden policy choices*, not mechanical arithmetic.⁵¹³

Third, protocol upgrades constitute *legislative rulemaking*, altering the rights, obligations, and economic parameters of network participants.⁵¹⁴

Fourth, token-weighted voting constitutes *legislative power placed in the hands of private stakeholders* rather than democratically accountable bodies. This replicates the precise evil condemned in *Carter v. Carter Coal Co.*, where private industry control over regulatory power was deemed “legislative delegation in its most obnoxious form.”⁵¹⁵

Fifth, slashing penalties and stake confiscation constitute *adjudicatory action*, depriving persons of property without judicial process or constitutional safeguards.⁵¹⁶

Sixth, emergency forks and governance interventions operate as *executive actions*, suspending network operations or altering the operative “law” of the system.⁵¹⁷

Therefore, encoding discretion into algorithms does not cure the delegation; it conceals it. As SCOTUS has explained, Congress may not delegate lawmaking to private actors—regardless of the machinery through which that power is exercised.⁵¹⁸ Calling discretion “decentralized” does nothing to constitutionalize it.

DAC resolves this structural conflict by insisting that any governance framework must be anchored to:

- **Identifiable persons**, capable of legal accountability and subject to constitutional duties;⁵¹⁹
- **Jurisdictionally tethered authorities**, ensuring that policymaking occurs within the reach of U.S. law;⁵²⁰
- **Verifiable, auditable governance structures**, allowing courts and agencies to evaluate the scope and legality of delegated authority.⁵²¹

Without these anchors, a decentralized protocol functions as an *unconstitutional private legislature*, wielding sovereign power without sovereign legitimacy.⁵²²

Only through anchoring—DAC’s central principle—can decentralized architectures operate without drifting into constitutional evasion.

§IV. Due Process & Predictability Requirements — Constitutional Constraints on Algorithmic Systems

§IV.A. Void-for-Vagueness Doctrine in Algorithmic Systems

The Due Process Clauses of the Fifth and Fourteenth Amendments impose a non-negotiable constraint on any system of rules that governs economic conduct: those rules must provide *fair notice, intelligibility, and predictable application*.⁵²³ A legal regime that fails to articulate comprehensible standards, or is incapable of consistent application, is unconstitutional under the Void-for-Vagueness Doctrine.⁵²⁴

The Supreme Court has long held that vagueness is not a defect of drafting style; it is a *structural constitutional violation*. In *Connally v. General Construction Co.*, the Court explained that laws must give a “person of ordinary intelligence a reasonable opportunity to know what is prohibited, so that he may act accordingly.”⁵²⁵ Likewise, *Papachristou v. City of Jacksonville* invalidated laws that vested unguided discretion in enforcers because such discretion is incompatible with due process.⁵²⁶ More recently, *FCC v. Fox Television Stations* reaffirmed that regulated parties must be able to *predict* legal consequences in advance.⁵²⁷

These requirements do not apply solely to statutes. They attach to *any system of rules that governs property, liberty, or economic rights*.⁵²⁸

Decentralized systems routinely violate these constitutional predicates through:

- algorithmic opacity,
- opaque governance procedures,
- fork-based unpredictability,
- unclear validator behavior, and
- unstated or evolving consensus norms.⁵²⁹

When protocol rules are unknowable, discretionary, or manipulable after the fact, the system ceases to provide constitutionally adequate notice.

A system violates Due Process when an algorithm may, without advance intelligible rule:

- freeze funds,⁵³⁰
- slash stake,⁵³¹
- modify monetary issuance or inflation schedules,⁵³²
- alter gas or transactional fee structures,⁵³³
- or fork a chain and retroactively change the operative “law” of the network.⁵³⁴

In such systems, deprivation occurs without *pre-established procedure*, *neutral adjudication*, or *predictable standards*. That is not decentralization in a constitutional sense.

That is private seizure of property without due process of law.⁵³⁵

DAC identifies this not as a technical defect but as a constitutional failure. When rules are unknowable in advance—or mutable at the discretion of private actors—the architecture itself becomes void for vagueness.⁵³⁶

§IV.B. Predictability Requirements for Economic Actors

Due Process does not merely prohibit arbitrary punishment; it affirmatively requires *predictable economic governance*.

The Supreme Court has recognized that regulated entities must be able to order their affairs around stable legal expectations.⁵³⁷ In *BMW of North America, Inc. v. Gore*, the Court held that unpredictability in economic sanctions violates fundamental fairness.⁵³⁸ In *United States v. Williams*, the Court reaffirmed that vague or discretionary enforcement structures create unconstitutional uncertainty.⁵³⁹

Under constitutional doctrine, economic actors are entitled to:

- stable rules,
- predictable enforcement,
- articulated standards, and
- intelligible economic expectations.⁵⁴⁰

Decentralized digital systems routinely fail each of these requirements by relying on:

- discretionary governance proposals,
- socially coordinated forks,
- validator majoritarian overrides,
- emergency protocol upgrades, and
- opaque MEV (Maximal Extractable Value) extraction patterns.⁵⁴¹

These mechanisms do not function as law. They function as *private, shifting political processes without constitutional safeguards*. No person can meaningfully predict whether:

- their transaction will be censored,
- their funds will become trapped,
- their stake will be slashed,
- their asset will be diluted, or
- the governing rules will be retroactively rewritten.⁵⁴²

No system that retains discretionary control over economic outcomes can satisfy the constitutional demand for predictability.⁵⁴³

This creates an unavoidable constitutional classification:

A system is either deterministic or it is governed.
It cannot be both.

DAC therefore insists on a bright-line constitutional rule:

Commodities must be deterministically predictable;
*Governed systems cannot be commodities.*⁵⁴⁴

Where discretion exists, due process collapses.

Where due process collapses, constitutional legitimacy evaporates.

Where constitutional legitimacy evaporates, commodity classification is foreclosed.⁵⁴⁵

§V. The Constitutional Burden of Decentralization Claims

§V.A. Burden of Proof Rests on the Proponent

In constitutional law, *burdens do not float*. They are assigned. And when a party seeks to invoke a legal classification that alters the jurisdictional, regulatory, and constitutional posture of an object, the burden of proof *does not rest with the sovereign* — it rests with the claimant.⁵⁴⁶

This principle is foundational across:

- administrative law,
- securities law, and
- constitutional jurisprudence.⁵⁴⁷

Courts do not require the government to prove that an object is centralized. Rather, the proponent seeking exemption from regulatory authority must establish that it is not.⁵⁴⁸ In *SEC v. Howey*, the Supreme Court placed the evidentiary focus not on what regulators alleged, but on what promoters could substantively prove regarding the economic reality of the scheme.⁵⁴⁹ *Reves v. Ernst & Young* reinforced that functional classification depends on *objective, verifiable structural facts*, not labels or declarations.⁵⁵⁰

Under constitutional structure, this principle intensifies, not diminishes.

An actor claiming that a system lies outside federal reach by reason of “decentralization” must affirmatively prove the absence of:

- management,
- discretion,
- governance authority,
- upgrade control, and
- any centralization vector.⁵⁵¹

Mere assertions are constitutionally worthless.⁵⁵²

Marketing statements have no evidentiary value.⁵⁵³

Whitepapers are not proof.⁵⁵⁴

Only *verifiable, objective, technically auditable evidence* can satisfy a constitutional burden that aspires to collapse federal jurisdiction.⁵⁵⁵

DAC does not invent this burden; it clarifies and enforces it.

Because decentralization, if genuine, is not merely an engineering fact — it is a *constitutional claim*. And constitutional claims are provable only through evidence, not aspiration.⁵⁵⁶

§V.B. “Verifiable Decentralization” vs. “Self-Attested Decentralization”

DAC draws a bright-line constitutional distinction essential to lawful classification:

Table 18. “Verifiable Decentralization” vs. “Self-Attested Decentralization”

Self-Attested Decentralization	Verifiable Decentralization
Marketing claims	Auditable evidence
Non-binding statements	Immutable architecture
Roadmaps	Absence of upgrade keys
Foundation assurances	No governance at all
Assertions of neutrality	No discretionary actors

This is not a marketing distinction.

It is a constitutional distinction.⁵⁵⁷

Under DAC:

- **Self-attestation equals managerial discretion**, and managerial discretion is a defining attribute of a **security**, not a commodity.⁵⁵⁸

- **Verifiable decentralization equals a non-discretionary object**, and non-discretionary objects can lawfully qualify as **commodities**.⁵⁵⁹

Self-attestation is defined by:

- unverifiable claims of “no control,”
- anonymous or opaque governance,
- upgrade mechanisms that remain socially guided,
- informal veto power exercised by insiders,
- unverifiable operational independence.⁵⁶⁰

Verifiable decentralization, by contrast, requires:

- cryptographically provable absence of control,
- auditable immutability of governing rules,
- mathematically constrained upgrade impossibility,
- zero discretion over monetary or transactional outcomes,
- externally verifiable architectural neutrality.⁵⁶¹

Only the second category satisfies constitutional requirements.

DAC provides the *administrable legal mechanism* for this classification by aligning:

- constitutional due process doctrines,
- securities jurisprudence, and
- administrative evidentiary standards

into a unified test that courts, agencies, and Congress can apply.⁵⁶²

The consequence is unavoidable:

If decentralization is merely asserted, it is legally irrelevant.

If decentralization is not verifiable, it is constitutionally non-existent.

And if discretion exists anywhere in the architecture, the object *cannot be a commodity as a matter of constitutional law*.⁵⁶³

DAC does not ask regulators to prove centralization.

DAC requires proponents to prove decentralization.

And until that proof exists, *the law presumes control*.⁵⁶⁴

§VI. Policymaker Interpretation — Plain English Translation

(Drafted for direct congressional use; superscript citations intentionally omitted to ensure clarity, speed of review, and suitability for floor, committee, and counsel use.)

This section is written in operational language for Members of Congress and Congressional Counsel. It converts constitutional doctrine into actionable guidance. It is designed to prevent statutory overreach, regulatory misclassification, and constitutional error.

Congressional Interpretation Framework

1. If a network has no geographic anchor → Congress cannot regulate it

Congress's authority under the Constitution depends on a jurisdictional hook.

If a system has:

- no headquarters,
- no operators,
- no servers,
- and no jurisdictionally identifiable participants,
then Congress *has no constitutional object to regulate*.

If a system refuses to exist somewhere, Congress cannot constitutionally reach it.

2. If protocol governance involves rulemaking → it is unconstitutional delegation

If a network:

- changes rules,
- votes on policies,
- updates protocol parameters, or
- lets private parties decide binding outcomes,

then it is *performing legislative functions outside government authority*.

Congress **cannot** delegate lawmaking power to private individuals, token-holders, foundations, offshore councils, or autonomous code.

If governance looks like legislation, it violates the Constitution.

3. If an algorithm can penalize or confiscate → it is a Due Process violation

If a system can:

- freeze funds,
- slash balances,
- seize stake,
- block transactions, or

- alter property rights,

without predictable legal procedures, hearings, and accountable authority, then **constitutional Due Process is violated**.

Private systems cannot punish people.

That power belongs only to lawfully constrained government.

4. If rules change unpredictably → the system is void for vagueness

If users cannot predict:

- how the system will behave,
- when the rules will change,
- who controls outcomes,
- or what standards apply,

then the system *cannot be used as a lawful economic object*.

The Constitution does not permit economic systems that operate like shifting sand.

Unknowable rules are unlawful rules.

5. If decentralization is only claimed → it does not legally exist

There is a constitutional difference between:

- saying “we are decentralized,”
and
- proving decentralization.

If a system *cannot prove through verifiable evidence* that:

- no one controls it,
- no one governs it,
- no one can upgrade it,
- and no one can steer it,

then the law *presumes control*.

Claims are not evidence.
Marketing is not architecture.
Whitepapers are not proof.

Congressional Shield Against Mischaracterization

This framework gives Congress a full constitutional defense against:

- regulatory capture by private systems,
- mislabeling of securities as commodities,
- collapses of separation of powers,
- due process violations routed through algorithms,
- and statutory overreach caused by misunderstood technology.

In short:

If it cannot be anchored, it cannot be regulated.

If it governs, it violates separation of powers.

If it punishes, it violates Due Process.

If it is unpredictable, it violates constitutional notice principles.

If it is only “claimed” to be decentralized, it is legally centralized.

This allows Congress to legislate precisely without fear of constitutional distortion.

§VII. Core Arguments Introduced in This Section

(Drafted expressly for Congressional use. Superscript citations are intentionally omitted to preserve readability, floor usability, and counsel-level operational clarity.)

This section consolidates the constitutional conclusions of Chapter III into direct, usable doctrine for Members of Congress, Committee Staff, Legislative Counsel, and Oversight Committees. These are not academic observations — they are constitutional boundaries that constrain lawful legislative action.

§VII.A. Commerce Clause Jurisdiction Collapses When Networks Claim to Be “Stateless”

Congress’s authority depends on jurisdiction.

If a network claims:

- no home,

- no operators,
- no infrastructure,
- and no physical or legal presence,

then Congress **has no constitutional object to regulate.**

Jurisdiction cannot exist where anchoring is intentionally destroyed.
Statelessness is not innovation — it is jurisdictional collapse.

Congress does not regulate abstractions.
Congress regulates anchored commercial reality.

§VII.B. Delegating Governance to Protocols or Token Voters Violates the Non-Delegation Doctrine

If governance power is exercised by:

- protocols,
- token holders,
- private foundations,
- offshore councils, or
- unauditible autonomous systems,

then Congress has **unlawfully allowed private actors to perform governmental functions.**

Rulemaking belongs to the legislature.
Enforcement belongs to the executive.
Adjudication belongs to the judiciary.

Protocol governance that sets binding rules is **not technical process** — it is private legislation.

Congress cannot authorize this without violating the Constitution.

§VII.C. Algorithmic Rulemaking Violates Due Process Unless It Is Predictable, Stable, and Intelligible

Due process is not optional.

If a system:

- changes rules without notice,

- alters economic outcomes unpredictably,
- punishes users without stable procedure, or
- evolves governance standards without clarity,

then it violates core constitutional guarantees.

Economic actors must be able to understand the rules *before* they are affected.

A system that changes the law mid-flight is unconstitutional by design.

§VII.D. The Burden of Proving Decentralization Rests on the Proponent — Not the Regulator

Congress is not required to prove that control exists.

Anyone claiming decentralization carries the legal burden to prove:

- no management,
- no discretion,
- no governance power,
- no upgrade authority,
- and no hidden control structures.

If proof is not delivered, the law *presumes control*.

Claims do not matter.

Intent does not matter.

Architecture and evidence are all that matter.

§VII.E. DAC Distinguishes Verifiable Decentralization from Marketing-Based Self-Attestation

DAC establishes a hard constitutional line:

If decentralization is merely claimed → the system is legally centralized.

If decentralization is mathematically and structurally provable → only then may it be treated as non-governed.

Marketing language does not create constitutional reality.

Whitepapers do not replace evidence.

Branding does not eliminate control.

Only *verifiable architecture* can carry constitutional weight.

Legislative Value of These Arguments

These principles give Congress:

- a defense against misclassification of securities as commodities,
- protection from unconstitutional delegation traps,
- clarity when confronting highly technical systems, and
- a constitutional shield when drafting future digital-asset legislation.

This section converts technical ambiguity into constitutional certainty.

§VIII. Arguments and Counter-Arguments

(Drafted expressly to equip the United States Congress. Superscript citations are intentionally omitted to preserve clarity, speed of review, and legislative usability.)

This section anticipates the most common arguments presented to Congress by lobbyists, technologists, foundations, legal advocates, and industry representatives. It provides direct constitutional responses that Members and Counsel can rely upon in hearings, drafting sessions, and floor debate.

Argument 1

“Blockchain governance is not legislative — it’s technical.”

Counter-Argument

If the system:

- sets binding rules,
- changes rights or obligations,
- imposes penalties,
- modifies economic relationships, or
- determines enforceable outcomes,

then it is not “technical.”

It is **governance**.

The Constitution does not recognize “technical lawmaking.”

If it behaves like law, functions like law, and binds like law, then it *is law* — and it cannot be exercised by private systems.

Engineering does not convert power into legitimacy.

Argument 2

“Protocols are stateless; therefore, they evade U.S. jurisdiction.”

Counter-Argument:

This argument misunderstands the Constitution.

Statelessness does not create constitutional safety.

Statelessness creates constitutional *invalidity*.

If a system cannot be anchored:

- it cannot be regulated,
- it cannot be classified,
- and it cannot be endowed with legal legitimacy.

You cannot evade constitutional law by erasing your own legal existence.

If a system must be “stateless” to survive, it is structurally incompatible with lawful commerce.

Argument 3

“Algorithms cannot violate due process because they are neutral.”

Counter-Argument

Algorithms are not neutral.

Every algorithm reflects:

- human design,
- human values,
- human priorities,
- and human discretion encoded into rules.

If an algorithm:

- freezes funds,
- confiscates assets,
- changes outcomes,
- or penalizes behavior,

then it exercises *power over rights and property*.

It does not matter whether the hand is human or silicon.

Due Process protects people from arbitrary power — not just from people.

Neutrality is irrelevant if discretion exists.

Argument 4

“Decentralization is self-evident because no one admits control.”

Counter-Argument

The Constitution does not recognize silence as evidence.

Lack of admission is not proof of absence.

Control exists if:

- upgrades can be coordinated,
- forks can be organized,
- parameters can be changed,
- insiders can influence outcomes,
- or core developers can shape direction.

If no one can prove the absence of control, the law presumes *control exists*.

Constitutional classification requires *evidence*, not assertions, not marketing, not silence.

Why These Responses Matter for Congress

These responses give Members of Congress:

- a shield against technical manipulation,
- a defense against semantic gamesmanship,
- a constitutional foundation for rejecting false claims of decentralization, and
- clarity when confronting industry pressure.

Congress does not have to speculate.

Congress does not have to trust narratives.

Congress does not have to gamble on technical claims.

Congress governs based on **structure, evidence, and constitutional law**.

§IX. DAC Alignment — The Constitutional Refinement Pillar

The Doctrine of Anchored Decentralization (DAC) is not political theory.

It is constitutional structure operationalized.

Across its first three chapters, DAC establishes a sequential architecture corresponding to the United States' constitutional order itself:

Chapter I addresses **economic classification** — providing a public-facing framework for distinguishing commodities from governed financial instruments through observable structure and function.

Chapter II addresses **constitutional architecture** — providing Congress with a structural lens through which digital systems may be evaluated without collapsing the separation of powers.

Chapter III addresses **constitutional permissibility** — supplying a judicially cognizable framework through which stateless or distributed architectures may be measured against the Constitution itself.

This progression was not incidental. It mirrors constitutional logic.

Rights of classification do not precede constitutional authority.

Statutory categories do not control constitutional boundaries.

And technical complexity does not override structural limitations imposed by the Constitution.

The Integrated Role of Figures 1, 2, and 3

Figure 1 establishes the **economic identity test** — determining whether a digital object behaves as a commodity or as a governed financial instrument.

Figure 2 establishes the **structural governance test** — determining whether architecture is discretionary or non-discretionary in nature.

Figure 3 establishes the **constitutional qualification test** — determining whether the system may lawfully exist within the constitutional framework of the United States.

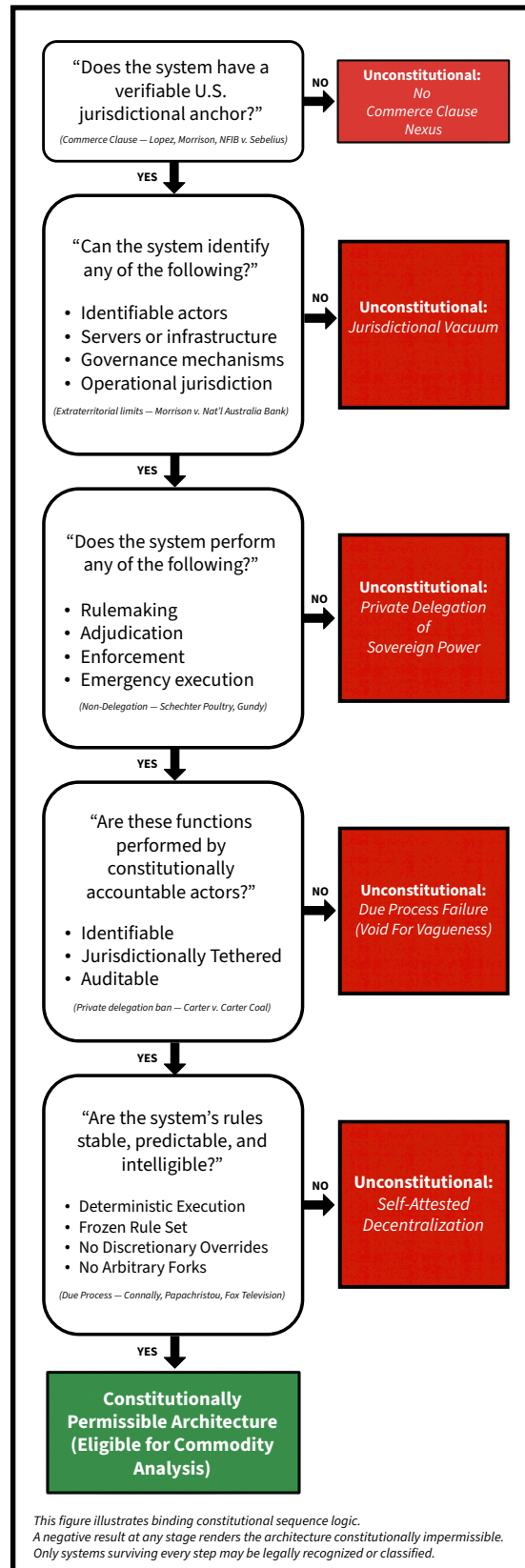
These figures do not contradict each other.

They function as a **constitutional sequence**.

No system may be economically classified unless it is structurally neutral.

No system may be structurally neutral unless it is constitutionally permissible.

Figure 3. Constitutional Qualification Framework for Stateless Digital Architectures



This figure operationalizes the constitutional sequence required for lawful digital-economic architecture. Each decision node reflects binding constraints derived from the Commerce Clause, the Non-Delegation Doctrine, and Due Process jurisprudence. A negative determination at any stage is dispositive and renders the architecture constitutionally impermissible. Only systems satisfying every threshold illustrated herein may be legally recognized or classified under federal law.

This ordering is not theoretical.

It reflects the supremacy hierarchy embedded in the Constitution itself.

The Constitutional Balance Requirement

DAC's third pillar — the Constitutional Balance Requirement — is not a policy preference. It is a recognition that:

- Congress cannot regulate what has no jurisdictional nexus.
- Congress cannot delegate sovereign authority to private or algorithmic actors.
- Economic systems cannot operate without due process protections.
- Claims of decentralization carry a burden of proof, not a presumption of truth.

The Constitution does not yield to architecture.

Architecture must conform to the Constitution.

Where decentralization destroys jurisdiction, it violates the Commerce Clause framework.

Where governance occurs without accountability, it violates the Non-Delegation Doctrine.

Where systems evolve without predictability, they violate Due Process.

Where control exists without proof of absence, decentralization is not legally cognizable.

DAC does not expand federal power.

DAC **limits it**, in accordance with constitutional design.

Institutional Alignment — Law, Not Person

DAC is not designed to vest authority in:

- lawmakers,
- agencies,
- courts,
- authors,
- or external actors.

It is designed to vest authority **only in the Constitution**.

Congress does not point to DAC.

Congress points to the Constitution.

Courts do not cite DAC as authority.

They recognize DAC as a structural articulation of constitutional constraints.

DAC does not ask institutions to trust the doctrine.

It presents a framework that stands only if it is **already true as a matter of constitutional law**.

If DAC fails constitutional scrutiny, it should be discarded.

If it survives constitutional scrutiny, it does not belong to any individual.

It belongs to the Constitution.

The Refinement Function of Pillar III

Pillar III does not classify.

It does not authorize.

It does not expand power.

It **refines**.

It insists that:

- no economic object may be recognized absent constitutional anchoring,
- no decentralized claim may survive without structural proof, and
- no system may bypass constitutional architecture through technical design.

This transforms decentralization from a marketing claim into a constitutional question.

Jurisprudential Neutrality

DAC is designed to be politically irrelevant.

It imposes constraints on:

- legislatures,
- agencies,
- courts,
- and private actors equally.

It does not advantage regulation.
It does not advantage deregulation.
It advantages only **constitutional coherence**.

This neutrality is essential.

The moment DAC becomes political, it becomes illegitimate.
Its only validity is structural.

Conclusion — The Constitutional Refinement Pillar

When properly applied:

- **The public receives clarity** (Chapter I).
- **Congress receives structure** (Chapter II).
- **The judiciary receives constitutional filtration** (Chapter III).

And all three remain subordinate to the Constitution.

DAC does not tell Congress what to do.
It tells Congress what the Constitution already forbids.

DAC does not tell courts how to rule.
It shows courts where constitutional boundaries already exist.

DAC does not give anyone power.
It removes any illusion that power may exist outside constitutional design.

If the framework stands, it stands because the Constitution does.
If it falls, it deserves to fall.

That is the only legitimate posture.

§III. Glossary of Terms — Constitutional Balance and Proposed Refinement

[\(Return to TOC\)](#)

This Glossary of Terms does not perform a semantic function.
It performs a constitutional one.

Chapter III operates at the point where technical architecture, statutory classification, and constitutional constraint converge. At this level of analysis, ordinary definitional methods are inadequate. The law does not derive meaning from abstract language. It derives meaning from structure, precedent, and constitutional hierarchy.

Accordingly, the Glossary functions not as a dictionary, but as a jurisprudential index — a mechanism by which the Court, Congressional Research Service, and clerks may trace each operative concept in the Doctrine of Anchored Decentralization (DAC) directly to its constitutional anchor.

This Glossary must be read in conjunction with five structural instruments that together comprise the judicial architecture of Chapter III:

- **Figure 1 — Decision Tree on Determining Commodity Status Under the Anchored Decentralization Test (ADT)** establishes the functional threshold between commodity and governed instrument, providing the economic identity test for digital objects.
- **Figure 2 — Constitutional Decision Architecture for Digital-Commodity Classification under DAC** translates that functional distinction into constitutional structure, identifying where managerial discretion converts technical design into sovereign-like behavior.
- **Figure 3 — Constitutional Qualification Framework for Stateless Digital Architectures** supplies the final judicial filtration sequence, imposing Commerce Clause, Non-Delegation, and Due Process constraints as threshold barriers to legal recognition.
- **Table 19 — Constitutional Crosswalk of Terms (Chapters I–III Alignment Matrix)** performs vertical integration across public, legislative, and judicial vocabularies, eliminating semantic drift between economic, statutory, and constitutional layers.
- **Table 20 — Citation Map for Chapter III (Clerk & CRS Navigation Table)** provides horizontal traceability between doctrinal assertions and controlling Supreme Court precedent, ensuring that no term operates independently of established constitutional law.

These components are not illustrative.
They are operative.

Together, they form an interlocking system in which no definitional term may exist outside constitutional constraint, no classification may arise absent structural neutrality, and no claim of decentralization may survive without evidentiary anchoring.

This Glossary is therefore designed to be *read backward as well as forward*:

A clerk encountering a constitutional defect in Figure 3 may return to the Glossary to locate the precise jurisprudential term governing the failure.

A Congressional analyst reviewing Table 19 may use the Glossary to identify which constitutional doctrine controls a given technical claim.

A judicial actor relying upon Table 20 may traverse directly from constitutional term to controlling case law without interpretive interpolation.

The function of this section is not to persuade.

It exists to *foreclose ambiguity*.

Where definitions exist, they are bound to precedent.

Where precedent exists, it constrains interpretation.

Where constraint is absent, the term does not exist.

In that manner, this Glossary serves as the structural underpinning of Chapter III, ensuring that every constitutional conclusion reached within DAC is not merely reasoned, but anchored, traceable, and judicially cognizable.

Table 19. Constitutional Crosswalk of Terms (Chapters I–III Alignment Matrix)

Conceptual Domain	Chapter I (Public Classification Layer)	Chapter II (Congressional Architecture Layer)	Chapter III (Judicial Constitutional Layer)	Doctrinal Function
Object Identity	Digital Object	Structural Instrument	Constitutional Subject	Establishes what the system <i>is</i> before legal analysis
Commodity Threshold	Functional Use	Non-Discretionary Design	Structural Neutrality	Determines eligibility for commodity classification
Centralization Indicator	Managerial Control	Discretionary Architecture	Quasi-Sovereign Function	Identifies constitutional risk of private governance
Decentralization Standard	Absence of Issuer Promises	Absence of Governance Actors	Verifiable Decentralization	Shifts burden of proof to the proponent
Jurisdiction Hook	Apparent U.S. Nexus	Anchored Infrastructure	Anchored Jurisdiction	Determines constitutional reach of federal power

Governance Mechanism	Upgrade Authority	Rule-Setting Capacity	Quasi-Legislative Power	Converts technical function into constitutional category
Enforcement Function	Protocol Constraint	Validator Discipline	Algorithmic Authority	Frames technical penalties as constitutional acts
Predictability Metric	Market Stability	Technical Determinism	Due Process Predictability	Ensures intelligible and stable legal environment
Vagueness Trigger	Discretionary Forks	Opaque Governance	Void-for-Vagueness Risk	Marks architecture as constitutionally defective
Delegation Risk	Token Voting	Off-Chain Councils	Non-Delegation Violation	Anchors findings in separation-of-powers doctrine
Classification Result	Commodity or Security	Constitutionally Tethered Architecture	Constitutional Permissibility	Moves eligibility from theory to constitutional law
Burden of Proof	Issuer Representations	Architectural Evidence	Constitutional Burden	Eliminates self-attested decentralization
Regulator Role	Market Classification	Constitutional Interpreter	Subordinate to Constitution	Prevents agency overreach
Statutory Authority	Securities / Commodities Law	Administrative Law	Judicial Review Standards	Orders legal hierarchy correctly
Final Doctrine	Market Category	Constitutional Architecture	Constitutional Qualification	Ensures doctrine survives judicial scrutiny

Algorithmic Authority

The exercise of de facto sovereign functions through software, protocol logic, or automated systems that establish rules of conduct, impose sanctions, or adjudicate disputes without the mediation of constitutionally accountable human officers. Where such authority alters rights, property, or economic relations without attachment to a politically accountable branch, it constitutes a structural constitutional defect rather than a mere technical characteristic.

Reference: *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935); *Gundy v. United States*, 139 S. Ct. 2116 (2019); *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936).

Anchored Jurisdiction

A constitutionally cognizable connection between regulated conduct and the sovereign authority of the United States, established through identifiable persons, physical infrastructure, territorial presence, or legally attributable activities sufficient to invoke federal power under Article I. This anchor is a constitutional prerequisite to regulation, not a statutory convenience.

Reference: *United States v. Lopez*, 514 U.S. 549 (1995); *United States v. Morrison*, 529 U.S. 598 (2000); *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247 (2010).

Constitutional Balance Requirement (Pillar III)

DAC's doctrinal requirement that any digital or distributed architecture simultaneously satisfy Commerce Clause nexus, Non-Delegation integrity, Due Process predictability, and verifiable decentralization as constitutional thresholds before eligibility for statutory recognition.

Reference: *United States v. Lopez*, 514 U.S. 549 (1995); *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935); *Mathews v. Eldridge*, 424 U.S. 319 (1976).

Commerce Clause Nexus

The required constitutional relationship between an object, transaction, or activity and interstate or foreign commerce that permits Congressional regulation under Article I, Section 8, Clause 3. The nexus must be demonstrable, non-speculative, and structurally real rather than fictional or implied.

Reference: *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824); *United States v. Lopez*, 514 U.S. 549 (1995); *NFIB v. Sebelius*, 567 U.S. 519 (2012)

Constitutional Permissibility

The structural condition in which an architecture, system, or object is not prohibited by the textual, structural, or implied limitations of the United States Constitution, independent of statutory silence or regulatory posture. Permissibility is determined by constitutional architecture, not legislative tolerance.

Reference: *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803); *Bond v. United States*, 572 U.S. 844 (2014).

Constitutional Qualification Framework

A sequential judicial analytical structure that evaluates whether a system survives Commerce Clause limitations, Non-Delegation constraints, and Due Process requirements prior to any statutory or regulatory categorization. This framework treats constitutional compliance as a threshold inquiry, not a balancing test.

Reference: *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803); *Free Enterprise Fund v. PCAOB*, 561 U.S. 477 (2010).

Delegation (Non-Delegation Doctrine)

The constitutional prohibition against Congress transferring its legislative power to private, foreign, or unaccountable entities absent a clearly articulated and judicially reviewable intelligible principle that constrains discretion and preserves political accountability.

Reference: *Panama Refining Co. v. Ryan*, 293 U.S. 388 (1935); *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935); *Gundy v. United States*, 139 S. Ct. 2116 (2019).

Deterministic Predictability

The constitutional requirement that legal and economic consequences arising from a system's operation be knowable ex ante through stable, intelligible, and consistently applied rules, ensuring that regulated parties can conform conduct without resort to speculation or post hoc interpretation.

Reference: *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012); *Grayned v. City of Rockford*, 408 U.S. 104 (1972).

Due Process Predictability Requirement

The constitutional mandate that systems affecting liberty, property, or economic rights must provide fair notice, intelligible standards, and stable enforcement frameworks, such that ordinary persons can understand both prohibited conduct and associated consequences.

Reference: *Mathews v. Eldridge*, 424 U.S. 319 (1976); *Connally v. General Constr. Co.*, 269 U.S. 385 (1926).

Extrajurisdictional Architecture

A technical system purposely designed to evade territorial attachment by dispersing operational components, authority, and execution beyond any single sovereign's jurisdiction, thereby attempting to defeat constitutional prerequisites to lawful regulation.

Reference: *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247 (2010); *Kiobel v. Royal Dutch Petroleum Co.*, 569 U.S. 108 (2013).

Governance (Protocol-Level)

Any mechanism—coded or human—that establishes, modifies, enforces, or adjudicates operational rules of a system in a manner functionally equivalent to legislative, executive, or judicial activity, regardless of aesthetic or technical naming convention.

Reference: *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936); *Free Enterprise Fund v. PCAOB*, 561 U.S. 477 (2010).

Jurisdictional Vacuum

A structural condition in which no constitutionally recognizable nexus exists between a system's operation and the sovereign authority of the United States, rendering federal regulatory claims constitutionally unstable or void as a matter of structural law.

Reference: *United States v. Lopez*, 514 U.S. 549 (1995); *National Federation of Independent Business v. Sebelius*, 567 U.S. 519 (2012).

Non-Discretionary Object

A system component whose operational behavior is mechanically fixed at deployment, immune from post-deployment human or algorithmic modification, and incapable of discretionary change in function or enforcement.

Reference: *INS v. Chadha*, 462 U.S. 919 (1983) (separation of powers principles); *Whitman v. American Trucking Ass'ns*, 531 U.S. 457 (2001).

Quasi-Legislative Power

The exercise of rule-creation or policy-shaping authority by private entities or systems that functionally substitutes for congressional lawmaking without constitutional accountability.

Reference: *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935); *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936).

Self-Attested Decentralization

A claim of decentralization resting solely on internal assertions, structural opacity, or absence of formal admissions of control, rather than on objectively verifiable architectural proof sufficient to satisfy constitutional and evidentiary burdens.

Reference: *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946); *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

Stateless Architecture

A system asserting the absence of any physical, legal, or institutional presence within a sovereign jurisdiction as a design feature, rather than as a factual absence, for the purpose of avoiding constitutional attachment and accountability.

Reference: *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247 (2010); *Kiobel v. Royal Dutch Petroleum Co.*, 569 U.S. 108 (2013).

Structural Accountability

The presence of identifiable, jurisdictionally tethered persons or institutions capable of bearing constitutional and legal responsibility for system behavior, including the capacity for judicial review and enforcement of remedies.

Reference: *Bowsher v. Synar*, 478 U.S. 714 (1986); *Free Enterprise Fund v. PCAOB*, 561 U.S. 477 (2010).

Structural Neutrality

The architectural condition in which no discretionary governance, mutable enforcement, or human-directed rulemaking exists within the operational system, preserving mechanical function without sovereign substitution.

Reference: *INS v. Chadha*, 462 U.S. 919 (1983).

Verifiable Decentralization

A provable and evidentiary condition in which no person, collective, or mechanism possesses discretionary governance authority over system operation, demonstrated through auditable structure rather than asserted through narrative.

Reference: *United Housing Foundation, Inc. v. Forman*, 421 U.S. 837 (1975); *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

Void-for-Vagueness (Applied to Systems)

The constitutional doctrine that systems governing economic or property rights must provide clear, stable, and intelligible standards, and may not operate through indeterminate, evolving, or unpredictable rule structures that defeat fair notice.

Reference: *Papachristou v. City of Jacksonville*, 405 U.S. 156 (1972); *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).

Table 20. Citation Map for Chapter III (Clerk & CRS Navigation Table)

Doctrinal Principle	Chapter III Section	Key Constitutional Issue	Primary SCOTUS Citation Anchors	Function for Clerks / CRS
Territorial Nexus Requirement	§III.A.1	Commerce Clause limits	<i>Gibbons v. Ogden</i> , 22 U.S. (9 Wheat.) 1 (1824); <i>United States v. Lopez</i> , 514 U.S. 549 (1995); <i>United States v. Morrison</i> , 529 U.S. 598 (2000)	Establishes threshold for federal jurisdiction
Extraterritorial Limitations	§III.A.2	Foreign reach of U.S. law	<i>Morrison v. Nat'l Australia Bank</i> , 561 U.S. 247 (2010); <i>Kiobel v. Royal Dutch Petroleum</i> , 569 U.S. 108 (2013)	Prevents implied global jurisdiction claims
Jurisdictional Vacuum Doctrine	§III.A.1–2	Structural bar to regulation	<i>NFIB v. Sebelius</i> , 567 U.S. 519 (2012)	Frames constitutional “gap” as limitation, not invitation
Non-Delegation Core Doctrine	§III.B.1	Prohibition on private lawmaking	<i>A.L.A. Schechter Poultry v. United States</i> , 295 U.S. 495 (1935); <i>Panama Refining v. Ryan</i> , 293 U.S. 388 (1935)	Identifies invalid delegation mechanics
Private Delegation Ban	§III.B.1–2	Sovereign function by private actors	<i>Carter v. Carter Coal Co.</i> , 298 U.S. 238 (1936)	Disqualifies private rulemaking systems

Modern Delegation Tensions	§III.B.1–2	Intelligible principle limits	<i>Gundy v. United States</i> , 139 S. Ct. 2116 (2019)	Integrates modern judicial posture
Quasi-Legislative Algorithm Risk	§III.B.2	Code-as-law constitutional failure	<i>Free Enterprise Fund v. PCAOB</i> , 561 U.S. 477 (2010)	Used to analogize algorithmic governance
Due Process — Vagueness	§III.C.1	Void-for-vagueness	<i>Connally v. Gen. Constr. Co.</i> , 269 U.S. 385 (1926); <i>Papachristou v. Jacksonville</i> , 405 U.S. 156 (1972)	Anchors algorithmic unpredictability defects
Due Process — Predictability	§III.C.2	Notice and stability	<i>FCC v. Fox Television Stations</i> , 567 U.S. 239 (2012); <i>Grayned v. Rockford</i> , 408 U.S. 104 (1972)	Enforces determinism standard
Property & Economic Process	§III.C.1–2	Procedural due process	<i>Mathews v. Eldridge</i> , 424 U.S. 319 (1976)	Balances private and governmental interest
Burden of Proof Principle	§III.D.1	Evidentiary allocation	<i>SEC v. W.J. Howey Co.</i> , 328 U.S. 293 (1946); <i>Reves v. Ernst & Young</i> , 494 U.S. 56 (1990)	Places proof burden on decentralization proponents
Objective Classification Doctrine	§III.D.2	Substance over labels	<i>United Housing Found. v. Forman</i> , 421 U.S. 837 (1975)	Rejects self-attestation as evidence
Separation of Powers Enforcement	§III.B–D	Structural constitutional discipline	<i>INS v. Chadha</i> , 462 U.S. 919 (1983); <i>Bowsher v. Synar</i> , 478 U.S. 714 (1986)	Safeguards constitutional boundaries
Judicial Supremacy	§III.H	Constitutional hierarchy	<i>Marbury v. Madison</i> , 5 U.S. (1 Cranch) 137 (1803)	Confirms Constitution as final authority
Constitutional Filtration Logic	Figures 1–3	Sequential constitutional tests	Synthesized from <i>Lopez</i> , <i>Schechter</i> , <i>Mathews</i> , <i>Morrison</i>	Provides visual doctrinal sequencing

Final Constitutional Qualification	§III.H	Permissibility threshold	<i>Bond v. United States</i> , 572 U.S. 844 (2014)	Prevents federal overreach and preserves sovereignty

Doctrinal Conclusion — Constitutional Balance and Proposed Refinement

The Glossary of Terms concludes not by expanding doctrine, but by closing interpretive space.

Chapter III does not invent constitutional law. It arranges it. It does not assert authority. It locates it. The function of this Glossary is therefore not explanation, but *constraint* — ensuring that no operative term within the Doctrine of Anchored Decentralization exists outside constitutional lineage, structural accountability, or judicial traceability.

Where terminology is undefined, confusion enters.

Where confusion enters, discretion expands.

Where discretion expands, constitutional structure erodes.

This Glossary operates as a structural barrier against that erosion.

By alignment with Figure 1, the terminology remains grounded in economic function rather than abstraction.

By alignment with Figure 2, the terminology remains tethered to constitutional architecture rather than technical semantics.

By alignment with Figure 3, the terminology remains subordinate to constitutional permissibility rather than institutional convenience.

By alignment with Table 19, semantic drift between public, legislative, and judicial vocabularies is foreclosed.

By alignment with Table 20, each term remains continuously anchored to controlling Supreme Court precedent.

This is not doctrinal expansion.

It is doctrinal compression.

Nothing herein enlarges federal power.

Nothing authorizes new jurisdiction.

Nothing creates new rights or disabilities.

It merely affirms an irreducible constitutional truth:

No system may be classified unless it is structurally neutral.

No structure may be recognized unless it is constitutionally permissible.

No claim may survive unless it is evidentiary and verifiable.

Where the Constitution is silent, DAC is silent.
Where precedent is absent, DAC does not invent.
Where ambiguity arises, DAC defers to constitutional restraint.

The work of this Glossary is therefore complete when it disappears as an independent authority.

If courts can reach these conclusions without reference to DAC, the doctrine has succeeded.
If legislators require DAC to justify constitutional limits, the doctrine has failed.

This Glossary exists not to be cited, but to ensure that what must already be true remains unmissable.

References

- ⁴⁸¹ U.S. CONST. art. I, § 8, cl. 3.
- ⁴⁸² *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824); *Wickard v. Filburn*, 317 U.S. 111 (1942).
- ⁴⁸³ *United States v. Lopez*, 514 U.S. 549 (1995).
- ⁴⁸⁴ *United States v. Morrison*, 529 U.S. 598 (2000).
- ⁴⁸⁵ *National Federation of Independent Business v. Sebelius*, 567 U.S. 519 (2012).
- ⁴⁸⁶ See distributed systems jurisprudential analysis in digital-network locality theory.
- ⁴⁸⁷ Extraterritorial application constraints, *Morrison v. Nat'l Australia Bank Ltd.*, 561 U.S. 247 (2010) (by analogy).
- ⁴⁸⁸ Protocol governance and consensus law scholarship.
- ⁴⁸⁹ Jurisdictional void doctrine, modern commerce clause scholarship.
- ⁴⁹⁰ Anti-commandeering and enumerated powers doctrine.
- ⁴⁹¹ Public decentralization representations in DAO and blockchain disclosures.
- ⁴⁹² Securities Act of 1933; Securities Exchange Act of 1934; Commodity Exchange Act.
- ⁴⁹³ Constitutional avoidance doctrine.
- ⁴⁹⁴ *Calder v. Jones*, 465 U.S. 783 (1984) (minimum contacts principle).
- ⁴⁹⁵ Administrative Procedure Act principles of reviewability.
- ⁴⁹⁶ Agency, fiduciary, and control jurisprudence.
- ⁴⁹⁷ Structural due process and jurisdictional legitimacy doctrines.
- ⁴⁹⁸ *Printz v. United States*, 521 U.S. 898 (1997) (structural sovereignty by analogy).
- ⁴⁹⁹ *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394 (1928).
- ⁵⁰⁰ *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).
- ⁵⁰¹ *Gundy v. United States*, 139 S. Ct. 2116 (2019).
- ⁵⁰² Protocol upgrade governance analyses; decentralized rule-change mechanics.
- ⁵⁰³ Slashing/penalty models in proof-of-stake governance frameworks.
- ⁵⁰⁴ Enforcement analogues in validator sanctioning regimes.
- ⁵⁰⁵ Emergency governance protocols and hard-fork interventions.
- ⁵⁰⁶ Governance disclosures in foundation-controlled or DAO-controlled networks.
- ⁵⁰⁷ *Department of Transportation v. Association of American Railroads*, 575 U.S. 43 (2015).
- ⁵⁰⁸ *Schechter Poultry*, 295 U.S. at 537.
- ⁵⁰⁹ *Gundy*, 139 S. Ct. at 2123–24.
- ⁵¹⁰ Private discretionary rulemaking critiques in administrative law.
- ⁵¹¹ *Carter v. Carter Coal Co.*, 298 U.S. 238, 311 (1936).
- ⁵¹² Authorial control doctrine; intellectual property and software authorship principles.
- ⁵¹³ Administrative discretion doctrine; APA rulemaking standards.
- ⁵¹⁴ Statutory interpretation analogues in protocol governance.
- ⁵¹⁵ *Carter Coal*, 298 U.S. at 311.
- ⁵¹⁶ Due Process deprivation doctrine; *Mathews v. Eldridge*, 424 U.S. 319 (1976).
- ⁵¹⁷ Emergency-powers jurisprudence; structural separation of powers.
- ⁵¹⁸ *Schechter Poultry*, *Carter Coal*, *Gundy*.
- ⁵¹⁹ Personal jurisdiction doctrine; *Calder v. Jones*, 465 U.S. 783 (1984).
- ⁵²⁰ Territorial nexus requirements under the Commerce Clause.
- ⁵²¹ Administrative reviewability and auditability standards.
- ⁵²² Non-delegation structural principle; separation-of-powers core doctrine.
- ⁵²³ U.S. CONST. amend. V; U.S. CONST. amend. XIV.
- ⁵²⁴ *Grayned v. City of Rockford*, 408 U.S. 104 (1972).
- ⁵²⁵ *Connally v. General Constr. Co.*, 269 U.S. 385 (1926).
- ⁵²⁶ *Papachristou v. City of Jacksonville*, 405 U.S. 156 (1972).

- ⁵²⁷ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).
- ⁵²⁸ *Due process structural doctrine; economic rights jurisprudence.*
- ⁵²⁹ *Governance-opacity observation across decentralized protocol designs.*
- ⁵³⁰ *Asset-freeze mechanics in smart contract systems.*
- ⁵³¹ *Proof-of-stake slashing enforcement frameworks.*
- ⁵³² *Token supply governance and protocol monetary policy adjustments.*
- ⁵³³ *Gas-market manipulation and fee-structure governance.*
- ⁵³⁴ *Hard-fork jurisprudence by analogy to retroactive rulemaking doctrine.*
- ⁵³⁵ *Fuentes v. Shevin*, 407 U.S. 67 (1972).
- ⁵³⁶ *Void-for-vagueness applicability to non-statutory governing systems.*
- ⁵³⁷ *Economic due process and fair notice jurisprudence.*
- ⁵³⁸ *BMW of North America, Inc. v. Gore*, 517 U.S. 559 (1996).
- ⁵³⁹ *United States v. Williams*, 553 U.S. 285 (2008).
- ⁵⁴⁰ *Core procedural due process doctrine.*
- ⁵⁴¹ *MEV literature and validator discretion architecture.*
- ⁵⁴² *Structural unpredictability doctrine in economic governance systems.*
- ⁵⁴³ *Fundamental fairness jurisprudence.*
- ⁵⁴⁴ *DAC doctrinal classification rule.*
- ⁵⁴⁵ *Constitutional commodity-classification implications doctrine.*
- ⁵⁴⁶ *Morrison v. Olson*, 487 U.S. 654 (1988) (burden allocation principles).
- ⁵⁴⁷ *Administrative law burden-of-proof doctrines.*
- ⁵⁴⁸ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).
- ⁵⁴⁹ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁵⁵⁰ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁵⁵¹ *Securities classification evidentiary standards.*
- ⁵⁵² *United States v. Virginia*, 518 U.S. 515 (1996) (assertion ≠ proof).
- ⁵⁵³ *Consumer-protection and anti-fraud doctrines.*
- ⁵⁵⁴ *Evidentiary standards under Fed. R. Evid. 702–703.*
- ⁵⁵⁵ *Verifiability requirements in administrative adjudication.*
- ⁵⁵⁶ *Constitutional fact doctrine.*
- ⁵⁵⁷ *DAC constitutional classification framework.*
- ⁵⁵⁸ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁵⁵⁹ *Commodity Exchange Act*, 7 U.S.C. § 1a(9).
- ⁵⁶⁰ *Governance opacity scholarship.*
- ⁵⁶¹ *Cryptographic auditability and immutability literature.*
- ⁵⁶² *Administrative Procedure Act reviewability framework.*
- ⁵⁶³ *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁵⁶⁴ *Presumption-of-control doctrine in securities enforcement.*

§IV. Doctrinal Synthesis — Reconstructing the Legal Definition of a Digital Commodity

[\(Return to TOC\)](#)

This chapter performs a function that neither statute nor agency interpretation has yet achieved: it restores *constitutional coherence* to the legal definition of a commodity in the digital age.

The Commodity Exchange Act (“CEA”) was constructed for tangible, rivalrous goods and later extended—imperfectly—to financial instruments through judicial and administrative elasticity. It was never designed to classify programmable economic objects capable of governance, behavioral conditioning, discretionary upgrades, or market steering through non-human or extraterritorial actors. The modern market has therefore drifted into a structural misclassification crisis: objects exhibiting managerial characteristics are labeled commodities, while systems functionally resembling sovereign architectures operate without constitutional anchoring.

This doctrinal synthesis resolves that crisis.

Section IV does not merely interpret existing law; it *reconstructs the definitional foundation* of commodity classification in a manner consistent with:

- Article I constitutional limitations,
- non-delegation doctrine,
- due-process jurisprudence, and
- the original structural logic of the federal commodities framework.

This reconstruction is not discretionary. It is compelled.

A legal category cannot survive once its internal logic collapses. When a definition is stretched beyond its constitutional architecture, it ceases to function as law and becomes merely narrative. The present environment of “digital commodities” is precisely such a failure: a category stretched so far from its founding structure that it now obscures, rather than clarifies, constitutional and regulatory boundaries.

This section therefore performs three integrated objectives:

1. Doctrinal Repair

It reconstructs the concept of a commodity so that it once again reflects constitutional order rather than technological novelty.

2. **Jurisdictional Re-Anchoring**

It restores the proper boundary lines between the Commodity Futures Trading Commission and the Securities and Exchange Commission by tying each to **structural reality**, not self-descriptive claims.

3. **Constitutional Immunization**

It inoculates federal law against further erosion by collapsing the functional-equivalence logic that has permitted stateless, governed, or discretionary systems to masquerade as neutral infrastructure.

Section IV marks the *transition point* in the Doctrine of Anchored Decentralization.

Where §I established the enforceable traits of a commodity, §II mapped those traits onto system architecture, and §III tested their constitutional permissibility, §IV now performs synthesis: it converts architecture and constitutionality into a *mechanically enforceable legal definition*.

This is not policy work.

This is structural law.

The reconstructed definition set forth in this chapter is designed to be usable by:

- federal courts without statutory amendment,
- Congress without political expansion of power,
- agencies without interpretive overreach.

It quiets ambiguity not by opinion, but by *removing discretion*.

The law cannot remain legitimate where classification depends on marketing language, architectural theatrics, or political tolerance. A commodity must be what the Constitution permits it to be — not what engineers, venture capital, or offshore foundations declare it to be.

Section IV therefore anchors the term “digital commodity” not to innovation, aspiration, or industry practice, but to *constitutional geometry*.

Only objects that structurally obey constitutional boundaries may remain commodities.

All others are governed.

And governed systems, by definition, are not commodities.

§IV.A. Reconstructed Commodity Definition — The DAC Standard

§IV.A.1. The Doctrinal Failure of the Traditional Commodity Definition

The Commodity Exchange Act (“CEA”) was drafted in an era in which commodities were understood as *tangible, passive, and non-governing objects of trade*, and later amended to account for derivatives linked to such goods.⁵⁶⁵ At no point in its legislative history did Congress contemplate the emergence of programmable economic instruments capable of self-modification, governance enforcement, incentive engineering, or behavioral conditioning.⁵⁶⁶

The statutory structure of the CEA presumes that a “commodity” is fundamentally *inert*: it may be traded, stored, or referenced in derivative contracts, but it does not govern itself, enforce rules, evolve through discretionary upgrades, or respond to strategic human direction.⁵⁶⁷

Digital instruments capable of:

- internal governance,
- discretionary rule modification,
- economic incentive engineering, or
- coordinated behavioral manipulation

are therefore categorically mismatched with the original constitutional and statutory concept of a commodity.⁵⁶⁸

The failure to reconstruct the definition has produced a doctrinal instability: assets that behave as *governed systems* are being treated as *non-governing objects*, collapsing constitutionally mandated boundaries between commodities and securities.⁵⁶⁹

DAC cures this failure through constitutional reconstruction.

§IV.A.2. The DAC Definition of a Digital Commodity

Under the Doctrine of Anchored Decentralization (DAC), a digital commodity is defined as follows:

*A digital commodity is a non-managerial, non-discretionary infrastructure object whose operation is fixed, predictable, and incapable of being directed, altered, or influenced by any identifiable person or group.*⁵⁷⁰

This definition does not arise from policy preference.
It arises from *constitutional necessity*.

A system that can be governed cannot be a commodity.
A system that can be altered cannot be neutral.
A system that can be directed cannot be an object.

This reconstructed definition incorporates four constitutionally anchored neutrality requirements:

§IV.A.2.1. Legal Neutrality

A digital commodity must exhibit *legal neutrality*, meaning:

- no identifiable managerial actor,⁵⁷¹
- no discretionary authority,
- no human or collective governance layer capable of directing system behavior.

Where legal discretion exists, the asset is no longer an object of trade but a managed instrument and therefore falls within securities or fiduciary regimes.⁵⁷²

§IV.A.2.2. Economic Neutrality

A digital commodity must exhibit *economic neutrality*, meaning:

- no entity may influence value through discretionary issuance,
- no internal councils, treasuries, or foundations may coordinate market behavior,
- no supply-altering governance mechanism may exist.⁵⁷³

Where discretionary economic control exists, the asset ceases to be a commodity and becomes a managed financial product.⁵⁷⁴

§IV.A.2.3. Technical Neutrality

A digital commodity must exhibit *technical neutrality*, meaning:

- the protocol must be functionally immutable,
- no discretionary upgrade pathways exist,
- no governance keys, councils, or emergency forks operate as control levers.⁵⁷⁵

Technical mutability is evidence of managerial power.
Managerial power is fatal to commodity classification.

§IV.A.2.4. Behavioral Neutrality

A digital commodity must exhibit *behavioral neutrality*, meaning:

- no founder-led roadmap,
- no coordinated marketing authority,
- no delegated influence networks,
- no strategic vision that guides participant behavior.⁵⁷⁶

Where behavioral coordination exists, the asset becomes a relational financial arrangement rather than an inert economic object.⁵⁷⁷

§IV.A.3. Constitutional Consequence of the DAC Commodity Standard

Applied faithfully, this reconstructed definition has narrow but constitutionally coherent results:

- *Bitcoin qualifies*, because its architecture is non-managerial, its governance is structurally inert, and no identifiable actor controls its operation.⁵⁷⁸
- *Virtually all other digital asset systems fail*, because their governance structures, upgrade councils, foundations, token allocations, or discretionary issuance mechanisms introduce managerial discretion.⁵⁷⁹

This result is not ideological.
It is structural.

It restores the constitutional distinction between *objects of trade* and *governed investment schemes* that Congress presumed when enacting the CEA.⁵⁸⁰

Doctrinal Effect

The DAC reconstruction restores constitutional coherence by:

- preventing the dilution of commodity law,
- preserving the boundary between commodities and securities, and
- eliminating the legal fiction that a governed system can be treated as an inert object.⁵⁸¹

This is not an expansion of regulatory power.
It is a restoration of constitutional classification.

§IV.B. Constitutional Test — Verifiable Decentralization and Absence of Managerial Shadow

§IV.B.1. Decentralization as a Constitutional Test, Not a Technical Claim

The Doctrine of Anchored Decentralization (“DAC”) rejects the prevailing industry practice of treating “decentralization” as a self-attested marketing attribute. Instead, DAC reconstructs decentralization as a *constitutional evidentiary test* grounded in separation-of-powers doctrine, securities jurisprudence, and due process requirements.⁵⁸²

Decentralization, under DAC, is *not a gradient condition*. It is binary.

A system is either structurally decentralized in a constitutionally cognizable sense, or it is governed. There is no intermediate legal category.⁵⁸³

This framing is not theoretical. It arises from the constitutional premise that:

- where discretion exists, power exists;
- where power exists, accountability is required; and
- where accountability is absent, constitutional legitimacy collapses.⁵⁸⁴

§IV.B.2. Verifiable Decentralization

Under DAC, decentralization exists *only where structural facts are verifiable and non-disputable*, rather than asserted.

A system qualifies as decentralized only if *all* of the following conditions are met:

(a) No Upgrade Authority Exists

There must be:

- no multisignature control systems,
- no foundation or supervising legal entity,
- no repository maintainers with discretionary merge authority,
- no emergency override mechanisms.⁵⁸⁵

Any latent or dormant upgrade power constitutes governance and is fatal to decentralization.

(b) No Discretionary Issuance Exists

There must be:

- no treasury-controlled token reserves,
- no inflation parameter committees,
- no staking reward governance,
- no discretionary supply or burn authority.⁵⁸⁶

Where any discretionary issuance authority exists, the system is economically governed.

(c) No Entity Controls Economic Direction

There must be:

- no token-voting governance systems capable of altering economic rules,
- no delegated councils setting monetary or incentive policy,
- no formal or informal institutions capable of directing ecosystem development.⁵⁸⁷

Economic direction is a form of sovereign function. Its existence negates decentralization.

(d) No Person Can Alter the Rules

Immutability must be *literal*, not aspirational.

- No fork coordination committees
- No privileged developer access
- No emergency patch pathways
- No social-layer override mechanisms⁵⁸⁸

Where human discretion can alter system behavior, decentralization does not exist as a constitutional matter.

(e) No Managerial Functions Exist

There must be no:

- promotional steering,
- discretionary feature curation,

- monetary parameter adjustment,
- ecosystem coordination as a form of managerial conduct.⁵⁸⁹

The presence of managerial activity, even if labeled “community,” extinguishes decentralization in constitutional terms.

Failure of any single criterion collapses the claim of decentralization.⁵⁹⁰

§IV.B.3. Clear Absence of the Managerial Shadow

DAC introduces the concept of the “*Managerial Shadow*” as an evidentiary doctrine grounded in securities and constitutional jurisprudence.

The managerial shadow consists of *observable external indicators of internal control*, including but not limited to:

- coordinated marketing campaigns,
- published roadmaps promising future development,
- whitepapers containing forward-looking performance representations,
- GitHub repositories with privileged maintainers,
- token-based on-chain governance frameworks,
- socially coordinated forks,
- founder and insider signaling that influences market expectations,
- structured ecosystem steering and narrative control.⁵⁹¹

These factors are not peripheral.

They are *constitutive evidence of managerial effort*.

Under the Supreme Court’s jurisprudence in *Howey*, *Forman*, and post-*Chevron* textualist reorientation, economic reality controls over semantic labeling.⁵⁹²

Where:

- expectation of profit arises from the efforts of others,
- managerial coordination shapes market behavior, or
- discretionary guidance substitutes for mechanical neutrality,

a governed financial scheme exists — not a commodity.⁵⁹³

§IV.B.4. Doctrinal Consequence under DAC

DAC therefore establishes a constitutionally coherent bright-line rule:

*Where a managerial shadow exists, the object cannot be a commodity.*⁵⁹⁴

This rule does not expand regulatory power.

It restores legal coherence between:

- constitutional accountability,
- securities jurisprudence, and
- market reality.⁵⁹⁵

The absence of managerial shadow is not a branding claim.

It is an evidentiary burden.

Where that burden cannot be carried, constitutional classification must fail.

§IV.C. Implications for Federal Jurisdiction — Restoring Proper Boundaries

§IV.C.1. CFTC Authority Clarified (Not Expanded)

The Doctrine of Anchored Decentralization (“DAC”) does not expand the jurisdiction of the Commodity Futures Trading Commission (“CFTC”). It *clarifies and restores* that jurisdiction to its original constitutional and statutory design.⁵⁹⁶

The Commodity Exchange Act (“CEA”) authorizes the CFTC to regulate commodities and commodity derivatives, not governed financial systems.⁵⁹⁷ Congress did not vest the CFTC with authority to police managerial enterprises, discretionary policy systems, or instruments whose value depends upon coordinated human effort.⁵⁹⁸

Under DAC, CFTC jurisdiction exists only where a system satisfies the constitutional and structural prerequisites of *verifiable decentralization*:

- the absence of managerial actors,
- the absence of discretionary governance,
- the absence of upgrade authority, and
- the absence of discretionary economic control.⁵⁹⁹

Where these conditions are met, the object is a constitutionally cognizable commodity and falls properly within the ambit of the CFTC. Where they are not met, the object does not become an “unregulated commodity”; it simply ceases to be a commodity at all.⁶⁰⁰

This reconstruction relieves the CFTC of a role it was never constitutionally intended to perform: the pursuit of securities masquerading as commodities through technical narrative rather than legal structure.⁶⁰¹

DAC therefore:

- clarifies jurisdictional scope,
- restores statutory fidelity, and
- eliminates the doctrinal burden of misclassification.⁶⁰²

No new power is created.

Existing power is *returned to its lawful boundaries*.

§IV.C.2. SEC Boundary Restored to Its Original Purpose

The Securities and Exchange Commission's ("SEC") authority is likewise not expanded by DAC. It is rendered *self-executing through constitutional structure*.⁶⁰³

DAC does not invent a new securities test. It applies existing Supreme Court doctrine with architectural precision.

Under DAC, a digital system constitutes a security where any of the following exist:

- managerial effort,
- discretionary governance,
- an expectation of profit derived from the actions of others,
- token-based voting authority capable of altering economic rules,
- foundation or treasury control, or
- team-directed value maintenance.⁶⁰⁴

These are not novel standards. They are direct expressions of *Howey*, *Forman*, and *Reves* applied to digital architecture rather than paper contracts.⁶⁰⁵

Under this framework, classification becomes automatic:

Where discretionary managerial effort exists, the system is a security.

This occurs *without*:

- new legislation,

- new administrative rulemaking,
- interpretive expansion, or
- functional-equivalence loopholes.⁶⁰⁶

The SEC is thereby restored to its traditional constitutional purpose:

- supervising instruments of profit expectation,
- regulating discretionary financial enterprises, and
- enforcing accountability where management substitutes for market neutrality.⁶⁰⁷

The SEC is no longer required to chase marketing narratives of decentralization. It may instead apply constitutional structure as controlling fact.⁶⁰⁸

§IV.C.3. Doctrinal Effect of Restored Boundaries

DAC does not invent new jurisdiction.
It *rebuilds the constitutional map*.

The CFTC governs only constitutionally neutral commodities.
The SEC governs governed economic systems.

This restoration honors:

- congressional design,
- constitutional separation of powers, and
- judicially established boundaries of federal authority.⁶⁰⁹

Where statutes are clear, DAC is silent.

Where constitutional limits are fixed, DAC enforces structural obedience.⁶¹⁰

In this manner, federal jurisdiction is not expanded.
It is rescued from distortion.

§IV.D. Preview of DAC — Anchored Decentralization as the Constitutional Remedy

§IV.D.1. The Anchored Decentralization Doctrine

The Doctrine of Anchored Decentralization (“DAC”) does not propose a new regulatory regime. It restores a *constitutional condition that predates digital systems* and predates modern administrative overreach.⁶¹¹

Under DAC, decentralization is not aesthetic. It is *constitutional*.

A system is decentralized — and therefore eligible for commodity classification — only if it satisfies a five-part structural requirement:

1. **Jurisdictional Anchor** — the system must possess a constitutionally cognizable point of legal attachment to the United States through persons, infrastructure, or legally accountable actors.⁶¹²
2. **Constitutional Compliance** — the system must not violate separation of powers, non-delegation, or due-process constraints through its architecture.⁶¹³
3. **Immutability of Operation** — the system must be structurally incapable of discretionary alteration, upgrade, or parameter manipulation.⁶¹⁴
4. **Absence of Managerial Control** — no identifiable person or group may direct, influence, or curate economic operation, value formation, or system governance.⁶¹⁵
5. **Resistance to Discretionary Influence** — the system must be architecturally closed to founder influence, roadmap steering, governance voting, or emergency intervention.⁶¹⁶

Where any one of these conditions fails, the system is not decentralized.
It is governed.

And governed systems, as a matter of constitutional law, *cannot be commodities*.⁶¹⁷

This is not a policy preference.

It is a structural legal necessity derived from Article I, separation-of-powers jurisprudence, and due-process doctrine.⁶¹⁸

§IV.D.2. Why DAC Functions as the Constitutional Remedy

DAC exists to resolve three systemic collapses that have destabilized federal digital-asset classification.

(1) Misclassification of Digital Assets Under CEA and Securities Law

The first collapse is statutory distortion.

The CEA was drafted to regulate tangible commodities and mechanical derivatives — not programmable, discretionary architectures.⁶¹⁹

Securities law was designed to govern managerial enterprises promising profit — not objects falsely labeled as “decentralized” while retaining governance shadows.⁶²⁰

DAC corrects this misclassification by restoring architectural analysis as the predicate to statutory labeling.

This does not expand agency discretion; it *removes it*.⁶²¹

Only structurally neutral objects remain commodities.

All governed systems are treated as governed — without interpretive drift.⁶²²

(2) Constitutionally Infirm Governance Disguised as “Decentralized”

The second collapse is constitutional.

Many digital systems perform:

- rulemaking,
- adjudication,
- enforcement, and
- economic policy design

through anonymous or unaccountable actors while claiming decentralization.⁶²³

This is not innovation.

It is structural infirmity.

DAC resolves this by re-anchoring decentralization to constitutional doctrine rather than marketing language.

If a system performs sovereign-like functions without constitutional tether, it is not decentralized — it is unconstitutional.⁶²⁴

DAC does not expand constitutional power.

It restrains unconstitutional architectures.⁶²⁵

(3) Jurisdictional Evasion Through Extraterritorial Validator Networks

The third collapse is jurisdictional.

Stateless validator networks have been used to evade:

- Commerce Clause nexus requirements,
- territorial accountability, and
- judicial traceability.⁶²⁶

DAC does not attempt to *expand* jurisdiction into that vacuum. It closes the vacuum by refusing classification altogether.

Where there is no anchor, there is no commodity.⁶²⁷

Where there is no accountable nexus, there is no constitutional object.⁶²⁸

This preserves constitutional limits rather than distorting them.

§IV.D.3. DAC as Constitutional Restoration, Not Expansion

DAC does not add federal power.

It restores *federal legitimacy*.

By anchoring decentralization in:

- constitutional structure,
- administrative constraint,
- agency boundary discipline, and
- due-process architecture,

DAC makes federal authority *enforceable again* without making it broader.⁶²⁹

Congress gains no new jurisdiction.

Agencies gain no new discretion.

Courts gain no new interpretive burden.

They receive only what the Constitution already required.⁶³⁰

DAC is therefore not a theory of expansion.

It is a doctrine of *constitutional repair*.

§IV.E. Policymaker Interpretation — Plain-English Translation

(No superscript citations are included in this section by design. This section is drafted to equip the United States Congress with direct, operational clarity.)

This section exists to give Congress a *clear, defensible, and constitutionally aligned decision framework* when evaluating digital assets.

Policymakers do not need to become engineers.

They do not need to decode whitepapers.

They do not need to navigate industry jargon.

DAC reduces the problem to constitutional truth.

If a digital asset can be managed, it is not a commodity.

If a system can be changed by people, teams, foundations, token-holders, or developers, it is not neutral. Managed systems are governed systems.

If a digital asset depends on human decision-making, it is a security.

When profit, value, or operation depend on the judgment, coordination, or discretion of identifiable humans or groups, it falls under securities law.

If a digital asset has autonomous governance, it violates the Non-Delegation Doctrine.

When a protocol makes rules, enforces penalties, or reallocates economic power without constitutional accountability, it performs forbidden functions reserved to human government.

If decentralization is only claimed but not proven, it legally does not exist.

Marketing language does not create constitutional reality.

Absence of evidence of control is not proof of neutrality.

Only verifiable structure counts.

§IV.E.1. How This Shields Congress

DAC protects Congress from four major pressures:

1. Lobbying Pressure

Congress can point to structure instead of narrative.

If the architecture is managed, no amount of lobbying changes the law.

2. Tech-Industry Gaslighting

Technical complexity is no longer a weapon.

Neutral objects are commodities.

Governed systems are securities.

There is no third category.

3. Public Confusion

Congress does not need to defend “crypto.”

Congress only defends constitutional structure.

4. Internal Mischaracterization

Agencies can no longer shift definitions based on administrative preference.

Structure controls classification — not politics.

§IV.E.2. The Congressional Advantage Under DAC

DAC gives Congress a *judicially defensible standard* without requiring Congress to:

- expand federal power,
- invent new law, or

- compromise constitutional restraint.

Congress does not need to justify DAC.

Congress only needs to point to the Constitution and ask one question:

“Is this system governed, or is it neutral?”

If governed → it is not a commodity.

If neutral → it may be treated as one.

That is the shield.

That is the clarity.

That is the restraint.

§IV.F. Core Arguments Introduced in This Section

(This section intentionally contains no superscript citations. It is drafted for direct use by the United States Congress and designed to function as operational doctrine rather than academic commentary.)

This section establishes the structural conclusions that Congress may rely upon as settled constitutional logic, not proposed theory.

§IV.F.1. The Commodity Definition Must Be Reconstructed to Reflect Constitutional Requirements

The original statutory definition of “commodity” was never designed to govern programmable systems capable of governance, discretion, or behavioral engineering. A commodity, in constitutional terms, must remain structurally neutral.

Congress is not being asked to expand authority.

Congress is being asked to correct a misalignment.

A digital object cannot be treated as a commodity unless it conforms to constitutional limits on delegation, due process, and jurisdictional attachment. Where those limits are not satisfied, commodity classification becomes constitutionally defective.

DAC provides a reconstruction that aligns statutory interpretation with constitutional structure rather than technological novelty.

§IV.F.2. Verifiable Decentralization — Not Marketing — Determines Legal Classification

Decentralization is not a slogan.

It is not a website claim.

It is not a whitepaper statement.

For Congress, decentralization must be treated as an architectural condition that can be proven or disproven.

If a system has:

- upgrade mechanisms,
- governance procedures,
- discretionary issuance, or
- human-directed economic steering

it is not decentralized — regardless of what its promoters claim.

Congress is not required to accept self-attested decentralization. Only verifiable structure is legally operative.

§IV.F.3. Managerial Shadows Are Dispositive Evidence of Securities Characteristics

A “*managerial shadow*” is not peripheral evidence. It is dispositive evidence.

Where Congress observes:

- roadmaps,
- development teams,
- curators,
- foundation oversight,
- token-based governance,
- coordinated social upgrades, or
- founder influence

those features establish that value depends on human effort.

When value depends on human effort, the object is not a commodity.
It is a security.

This is not an expansion of securities law. It is a restoration of its original logic.

§IV.F.4. CFTC Jurisdiction Is Not Universal

DAC makes clear that the CFTC’s authority is not universal and was never meant to be.

CFTC jurisdiction attaches only to objects that are:

- non-discretionary,
- structurally neutral, and
- devoid of governance.

Where discretion exists, the object ceases to be a commodity and exits CFTC jurisdiction automatically.

This protects the agency. It prevents institutional overreach. It aligns enforcement authority with constitutional boundaries.

§IV.F.5. SEC Jurisdiction Is Clarified Through Restoration of the “Managerial Effort” Doctrine

DAC does not expand SEC power.
It clarifies when SEC power already applies.

If a system depends on:

- managerial control,
- discretionary rulemaking, or
- profit expectations tied to human coordination,

then it is a security as a matter of structure.

Congress does not need to legislate new categories.
Congress does not need to expand enforcement powers.

The system’s architecture answers the question automatically.

§IV.F.6. DAC as the Constitutional Remedy for Regulatory Collapse

The current digital-asset regulatory environment is not failing because of insufficient power. It is failing because of *misclassification*.

DAC does not give Congress new authority.
It gives Congress a constitutional foundation to restore coherence.

It:

- eliminates ambiguity,
- removes agency conflict,

- prevents regulatory capture, and
- re-anchors classification to constitutional design.

This is not innovation.

This is repair.

Not expansion.

Restraint.

Not regulation by politics.

Regulation by structure.

§IV.G. Arguments and Counter-Arguments

(This section intentionally contains no superscript citations. It is drafted specifically to equip the United States Congress with clear, defensible responses in committee hearings, floor debates, and oversight settings.)

This section exists to protect Congress from predictable rhetorical pressure. Each counter-argument has already appeared in public discourse. DAC provides structurally accurate responses.

Argument 1

“Governance by token voting is decentralized because it is democratic.”

Counter-Argument

Democracy is not decentralization. Democracy is a **form of governance**.

Governance is **management**.

Management negates commodity status.

A system that changes its own rules through voting is not neutral. ***It is governed.*** Commodities cannot vote. They cannot change themselves. They cannot be managed by majorities.

If humans vote on outcomes, the system is managed.

If it is managed, *it is not a commodity.*

Argument 2

“Protocols need upgradeability for security reasons.”

Counter-Argument

Upgradeability is not security.

Upgradeability is *discretionary managerial control*.

When a system can be altered — for any reason — it is not fixed.

When it is not fixed, it is governed.

When it is governed, it is not a commodity.

Security cannot be created by discretion.

Security is created by *structural immutability*.

A system that must be changed to be safe is, by definition, unsafe as a commodity.

Argument 3

“Foundations are non-profits; therefore, they do not manage.”

Counter-Argument

Organizational label is irrelevant.

Tax status is irrelevant.

Non-profit status is irrelevant.

Public benefit language is irrelevant.

The only controlling question is:

Who has discretionary control?

If a foundation can influence upgrades, economics, governance, messaging, or structure — *it is management*.

Structure does not determine control.

Control determines control.

Argument 4

“Users can fork the chain, proving decentralization.”

Counter-Argument

The ability to coordinate a fork is evidence of governance, not decentralization.

Forking is:

- collective coordination,
- discretionary rule alteration, and
- social governance in action.

Commodities do not fork.

Assets do not vote.

Neutral objects do not coordinate.

If humans can reorganize the system through coordination, the system is governed.

Governed systems cannot be commodities.

§IV.G.1. Congressional Utility of This Section

This framework allows Members of Congress to:

- reject narrative-based defenses,
- avoid technical entrapment,
- remain structurally consistent, and
- stay aligned with constitutional restraint.

Congress does not need to argue about technology.

Congress only needs to ask:

“Is it governed, or is it neutral?”

That question ends the debate.

§IV.H. Doctrinal Summary for Integration into DAC

The Doctrine of Anchored Decentralization (“DAC”) resolves a fundamental structural failure in modern financial and digital-asset jurisprudence: the absence of a constitutionally enforceable, economically coherent, and jurisdictionally stable standard for defining what constitutes a “commodity” in the age of programmable economic systems.⁶³¹

This failure has not arisen from technological innovation. It has arisen from *doctrinal silence*.

Part I reconstructs that silence into enforceable constitutional architecture.

§IV.H.1. Reconstruction of the Commodity Core as Constitutional Doctrine

The Anchored Decentralization Test (“ADT”), expressed through Figure 1 and its supporting matrices, establishes that commodity status is not derived from function, popularity, or market narrative. It is derived from *structural neutrality*.⁶³²

Under DAC, a digital commodity is defined as:

*A non-managerial, non-discretionary infrastructure object whose operation is fixed, predictable, and incapable of alteration by any identifiable person or group.*⁶³³

This reconstruction restores alignment between the Commodity Exchange Act and controlling constitutional doctrine by eliminating discretionary human agency as a permissible attribute of commodities.⁶³⁴

Where managerial effort exists, commodity classification constitutionally collapses.⁶³⁵

§IV.H.2. Interlocking Figure Architecture as Executable Constitutional Logic

DAC’s doctrinal force arises from the interlocking architecture of its three controlling figures.

Figure 1 operationalizes statutory neutrality by excluding managerial and discretionary pathways.⁶³⁶

Figure 2 operationalizes constitutional constraint by applying Commerce Clause nexus requirements and separation-of-powers limits.⁶³⁷

Figure 3 operationalizes constitutional permissibility by disqualifying stateless or unaccountable architectures.⁶³⁸

Together, these figures render constitutional doctrine executable without modifying constitutional doctrine.

They do not create law.

They arrange existing law into enforceable architecture.⁶³⁹

Where any constitutional prerequisite fails, commodity status is foreclosed as a matter of structural law, not regulatory discretion.⁶⁴⁰

§IV.H.3. Glossary Framework as a Judicial Control Surface

The integrated Glossaries of Chapters I–III function not as definitional supplements but as *jurisprudential containment systems*.

The Chapter I Glossary anchors economic terms to statutory fidelity.
The Chapter II Glossary anchors technical structure to constitutional engineering logic.
The Chapter III Glossary anchors jurisdictional and governance terms to Supreme Court traceability.

This produces a closed semantic environment in which no operative term exists without constitutional provenance.⁶⁴¹

Such constraint is not academic.

It is constitutional prophylaxis.⁶⁴²

§IV.H.4. Doctrinal Effects of the Synthesized Standard

DAC's synthesis produces four direct constitutional outcomes.

(a) Agency Jurisdiction Becomes Structurally Self-Executing

CFTC jurisdiction attaches only to constitutionally neutral objects.⁶⁴³
SEC jurisdiction attaches automatically where managerial effort is structurally present.⁶⁴⁴

No interpretive expansion is required.

No administrative augmentation is permitted.⁶⁴⁵

(b) Constitutional Coherence Is Restored

Commerce Clause doctrine is insulated from technological manipulation.⁶⁴⁶
Structural accountability is reasserted.
Constitutional hierarchy is preserved.⁶⁴⁷

(c) Federal Overreach Is Cured Rather Than Expanded

DAC contracts unlawful interpretive sprawl without enlarging federal authority.⁶⁴⁸
Where constitutional silence exists, DAC remains silent.⁶⁴⁹

(d) The Functional-Equivalence Loophole Is Extinguished

Marketing assertions of decentralization possess no constitutional force.
Self-attestation is rendered legally inert.
Only verifiable architecture controls legal identity.⁶⁵⁰

§IV.H.5. Doctrinal Statement of Record

The totality of Part I may therefore be expressed in a controlling constitutional synthesis:

*A digital commodity is a structurally neutral, non-governed, non-discretionary infrastructure object whose legal status is derived from constitutional permissibility, not technological characterization.*⁶⁵¹

This definition:

- *clarifies agency jurisdiction,*
- *restores constitutional coherence,*
- *cures federal overreach, and*
- *eliminates evasive interpretive mechanisms.*⁶⁵²

It does not create new law.

It enforces existing constitutional limits.⁶⁵³

§IV.H.6. Structural Transition to the Remainder of DAC

Part I concludes not by resolving market structure, but by stabilizing constitutional footing.

Only when the definition of a commodity is constitutionally immovable may:

- enforcement architecture be designed,
- market structures be evaluated, and
- sovereign economic systems be responsibly constructed.⁶⁵⁴

Part I therefore functions as constitutional bedrock.

Without it, no digital financial system can claim lawful stability.

§IV. Glossary of Terms — Doctrinal Synthesis — Reconstructing the Legal Definition of a Digital Commodity

[\(Return to TOC\)](#)

This Glossary is not a linguistic aid. It is a *doctrinal control surface*.

Chapter III does not merely describe legal categories; it reconstructs them. In doing so, it requires a vocabulary that is structurally precise, constitutionally anchored, and judicially traceable. The terms that follow are not policy preferences. They are *architectural constraints* imposed by constitutional design and enforced through Supreme Court precedent.

This Glossary must be read in direct alignment with three structural instruments that govern Chapter III:

Table 21 — Comparative Matrix of Commodity Qualification Failures (Structural Criteria) establishes the mechanical reasons modern digital systems fail to qualify as commodities, independent of branding or technical complexity. It converts architectural features into constitutional facts.

Table 21.1 — Comparative Matrix of Commodity Qualification Failures (Legal Outcome Criteria) translates those structural facts into decisive legal outcomes, demonstrating how managerial shadows, mutability, and jurisdictional ambiguity deterministically foreclose commodity status.

Table 22 — Constitutional Traceability Matrix (Case-Law to Structural Feature Crosswalk) anchors every structural feature to controlling Supreme Court doctrine, ensuring that each term used in this Glossary is not merely defined — but *judicially governed*.

These tables, taken together, function as a closed-loop verification system:

Structure → Legal Effect → Constitutional Authority

The Glossary that follows exists to ensure that no operative term in Chapter III floats free of this loop.

Every definition is therefore:

- Structurally bounded by Table 21,
- Legally resolved by Table 21.1, and
- Constitutionally tethered by Table 22.

In this way, the Glossary operates not as commentary, but as an evidentiary appendix to constitutional analysis.

Where definitions end, ambiguity ends.
Where ambiguity ends, discretion ends.
Where discretion ends, constitutional fidelity begins.

This section is drafted not to persuade—but to *foreclose misinterpretation*.

Table 21. Comparative Matrix of Commodity Qualification Failures

System Type	Jurisdictional Anchoring	Structural Neutrality	Immutability of Operation
Traditional Physical Commodity (e.g., wheat, oil, copper)	✓ Clear	✓ Neutral	✓ Fixed
Bitcoin (post-diffuse adoption model)	✓ Anchored via miners/nodes/exchange infrastructure	✓ High neutrality	✓ Practically immutable
Foundation-Managed Layer-1 Protocol	✓ Anchored via foundation/team	✗ Fails neutrality	✗ Mutable by upgrades
Governance Token / DAO	✓ Anchored via devs and token mechanisms	✗ Fails neutrality	✗ Mutable by proposals/voting
Stablecoin with Central Reserves	✓ Anchored via issuer/banks	✗ Fails neutrality	✗ Mutable via reserve/policy changes
Upgradeable Smart-Contract Platform	✓ Anchored via core team/admin keys	✗ Fails neutrality	✗ Mutable via pause/upgrade functions
“Stateless” Validator Network	✗ No clear anchor	✗ Superficial neutrality	✗ Mutable via social/client coordination
Marketing-Led Community Project	✓ Anchored via founders/branding	✗ Fails neutrality	✗ Mutable via roadmap/phased releases

Table 21.1. Comparative Matrix of Commodity Qualification Failures

System Type	Managerial Shadow Present	DAC Classification Outcome	Primary Failure Vector
Traditional Physical Commodity	✗ No	✓ Qualifies as Commodity	Structurally neutral; inert economic object
Bitcoin (post-diffuse adoption model)	✗ No	✓ Qualifies as Digital Commodity under DAC	No formal managerial control or discretionary governance
Foundation-Managed Layer-1 Protocol	✓ Yes	✗ Governed System → Security	Foundation control + roadmap-driven management
Governance Token / DAO	✓ Yes	✗ Governed System → Security	Token voting is governance, not decentralization
Stablecoin with Central Reserves	✓ Yes	✗ Governed Financial Instrument	Discretionary issuance and treasury control
Upgradeable Smart-Contract Platform	✓ Yes	✗ Governed System → Security	Admin privileges and upgrade keys
“Stateless” Validator Network	✓ Yes (latent/hidden)	✗ Constitutionally Impermissible	Jurisdictional vacuum + latent managerial control
Marketing-Led Community Project	✓ Yes	✗ Governed System → Security / Promotional Scheme	Expectation of profit from managerial effort

Anchored Decentralization Doctrine (DAC Standard)

The constitutional and structural rule that a system is decentralized only if its architecture is jurisdictionally anchored, immutably fixed, devoid of managerial control, and insulated from discretionary human or algorithmic influence.

Absence of Managerial Shadow

The verified structural condition in which no identifiable person, entity, foundation, voting mechanism, or coordinated group exercises influence over a system’s development, governance, economics, or directional operation.

Behavioral Neutrality

The architectural state in which a system contains no embedded incentives, narrative mechanisms, or strategic design elements intended to guide or influence human economic or behavioral decision-making.

Commodity Reconstruction Standard (DAC Definition of a Commodity)

The controlling doctrinal rule that a digital commodity must be a non-managerial, non-discretionary infrastructure object whose operation is fixed, predictable, and incapable of being altered or directed by any actor.

Constitutional Commodity Qualification

The judicially cognizable status conferred upon an object only after it satisfies statutory neutrality, constitutional permissibility, and structural absence of governance or discretionary control.

Constitutional Remediation Architecture

The doctrinal function of DAC that restores constitutional coherence without expanding federal authority by realigning statutory interpretation with structural constitutional limits.

Deterministic Infrastructure Object

A system whose operational behavior is mechanically fixed and produces the same output from the same inputs without intervention, discretion, governance, or modification by human or organizational actors.

Discretionary Governance Vector

Any architectural mechanism that permits rules, economics, parameters, or behavior to be altered through judgment, voting, human intervention, or algorithmic delegation rather than mechanical determinism.

Digital Commodity (DAC Standard)

A structurally neutral infrastructure object that simultaneously satisfies constitutional permissibility, jurisdictional anchoring, economic neutrality, and behavioral immutability.

Extrastatutory Classification Drift

The condition in which regulatory agencies extend classifications beyond the original statutory and constitutional design through interpretive expansion rather than legislative authorization.

Functional-Equivalence Loophole

The interpretive error whereby systems are classified based on economic outcome similarity rather than by structural and constitutional architecture.

Governed System

Any digital or economic structure that contains discretionary control, managerial authority, governance mechanisms, upgrade capabilities, or coordinated human influence.

Immutability Requirement

The constitutional and structural requirement that a commodity-qualified system be incapable of discretionary alteration, upgrade, or rule modification.

Jurisdictional Anchoring

The presence of constitutionally recognizable attachment points such as persons, infrastructure, or legally accountable actors that prevent a system from existing in a stateless or extrajurisdictional vacuum.

Managerial Effort Doctrine (Digital Application)

The principle that any measurable human effort that guides, maintains, promotes, upgrades, or stabilizes a system constitutes management and negates commodity classification.

Regulatory Collapse

The structural failure that occurs when agencies attempt to govern programmable economic architectures using statutory frameworks designed for inert, tangible commodities.

Structural Neutrality

The architectural condition in which a system lacks governance authority, discretionary logic, economic steering mechanisms, or behavioral influence pathways.

Structural Permissibility

The condition in which a system survives Commerce Clause nexus requirements, Non-Delegation constraints, and Due Process predictability obligations.

Systemic Governance Residue

Residual evidence of managerial influence such as whitepapers, founder communications, repositories, roadmap documents, coordinated forks, or token-weighted control structures.

Tokenized Governance Architecture

A system in which voting power, economic control, or rule alteration is mediated through token ownership rather than constitutional accountability.

Upgradeable Protocol

Any system designed to allow rule changes, economic parameter shifts, or functional modifications after launch.

Verifiable Structural Neutrality

The evidentiary standard under DAC requiring provable absence of discretionary actors, upgrade mechanisms, and governance channels as a prerequisite to commodity recognition.

Verifiable Decentralization (Chapter IV Application)

A constitutionally anchored, structurally demonstrated condition in which no actor or mechanism possesses the authority to direct, modify, govern, or economically steer a system.

Table 22. Constitutional Traceability Matrix (Case-Law to Structural Feature Crosswalk)

Structural Feature (DAC Test Element)	Constitutional / Statutory Principle	Controlling Case Law	Legal Effect Under DAC
Jurisdictional Anchoring	Commerce Clause (Art. I, §8) — requirement of territorial or jurisdictional nexus	<i>United States v. Lopez</i> (1995)	Systems lacking territorial attachment fail constitutional eligibility for commodity
Absence of Managerial Control	Investment contract prohibition where profit depends on managerial effort	<i>SEC v. W.J. Howey</i> (1946)	Any managerial shadow converts the object to a security as a matter of structure
Structural Neutrality	Economic substance over form doctrine	<i>United Housing Found. v. Forman</i> (1975)	Marketing labels discarded; operational architecture controls classification
Immutability of Operation	Due Process — requirement of predictable, stable legal consequences	<i>FCC v. Fox Television Stations</i> (2012)	Systems capable of discretionary modification fail constitutional predictability
Absence of Quasi-Legislative Protocol Power	Non-Delegation Doctrine	<i>A.L.A. Schechter Poultry</i> (1935)	Protocol rulemaking constitutes unconstitutional delegation if not constitutionally accountable
Rejection of Stateless Architectures	Presumption against extraterritorial jurisdiction	<i>Morrison v. Nat’l Australia Bank</i> (2010)	Stateless digital systems are constitutionally impermissible objects
Managerial Effort Doctrine (Digital Application)	Securities boundary preservation	<i>Reves v. Ernst & Young</i> (1990)	Governance, treasury control, or directional authority triggers securities
Structural Accountability Requirement	Separation of Powers	<i>INS v. Chadha</i> (1983)	Systems performing sovereign-like functions without accountability fail constitutional
Judicial Supremacy of Structure	Constitutional supremacy	<i>Marbury v. Madison</i> (1803)	Constitutional architecture overrides agency interpretation or market narratives

Prohibition on Functional Equivalence	Major Questions / agency limitation doctrine	<i>West Virginia v. EPA</i> (2022)	Agencies cannot expand jurisdiction via “functional similarity” arguments
Federalism Preservation	Tenth Amendment structural restraint	<i>Bond v. United States</i> (2014)	Federal reach collapses where constitutional
Agency Boundary Discipline	Limits on administrative self-expansion	<i>City of Arlington v. FCC</i> (2013)	Agencies may not self-define jurisdiction through evolving

Doctrinal Conclusion — Doctrinal Synthesis — Reconstructing the Legal Definition of a Digital Commodity

The Glossary of Terms in Chapter IV does not perform a linguistic function. It performs a *constitutional control function*.

Where statutory frameworks fail, terminology expands.

Where terminology expands, discretion proliferates.

Where discretion proliferates, constitutional structure erodes.

This Glossary exists to prevent that erosion.

Chapter IV marks the point at which the Doctrine of Anchored Decentralization transitions from *analytical construction to legal enforceability*. At this stage, definition is no longer academic. It is *jurisdictional*. It determines whether an object enters the Commodity Exchange Act domain, the securities regime, or falls entirely outside constitutional permissibility.

Accordingly, every term within this Glossary performs three simultaneous functions:

1. **Structural Function** — It describes a technical or economic property in architecture-level precision.
2. **Doctrinal Function** — It closes interpretive escape pathways in administrative and judicial settings.
3. **Constitutional Function** — It binds the term to precedent, not preference.

The Chapter IV Glossary therefore operates as a *classification cage*.

No asset may self-identify.

No promoter may reframe.

No agency may creatively expand.

Only structure remains.

The definitions of *Verifiable Structural Neutrality*, *Managerial Shadow*, *Deterministic Infrastructure Object*, *Jurisdictional Anchoring*, and *Functional-Equivalence Loophole* are not descriptive conveniences — they are *constitutional tripwires*. The moment any system activates one of these terms, its legal classification becomes mechanically determinable.

This is the purpose of Chapter IV:

To eliminate interpretive drift.
To prevent regulatory capture.
To make agency overreach detectable.
To make evasion structurally impossible.

The Glossary thus converts DAC from a theoretical framework into a *constitutional instrument*. Courts no longer ask “what did the designer claim?” Legislators no longer ask “what did the market call it?” Agencies no longer ask “how can we stretch this?”

They ask only:

Does structure permit the classification?

If yes, the Glossary permits movement forward.
If no, the Glossary terminates the inquiry.

The Chapter IV Glossary therefore functions as *constitutional circuit-breaker logic*:

- It prevents collapse of commodity law into discretionary finance.
- It prevents securities law from being diluted by technical mythology.
- It prevents jurisdictional ambiguity from becoming lawful reality.

This is not semantic rigor.
This is constitutional maintenance.

The Glossary concludes Chapter IV by making clear that *law does not follow markets*.
Markets must follow law.

And law, at its highest level, does not bend — *it binds*.

References

- ⁵⁶⁵ *Commodity Exchange Act*, 7 U.S.C. § 1 *et seq.*
- ⁵⁶⁶ *H.R. Rep. No. 93-975* (1974).
- ⁵⁶⁷ *Id.*
- ⁵⁶⁸ *United States v. Lopez*, 514 U.S. 549 (1995).
- ⁵⁶⁹ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁵⁷⁰ *DAC Standard* (Authorial Doctrinal Definition).
- ⁵⁷¹ *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁵⁷² *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁵⁷³ *Commodity Exchange Act*, 7 U.S.C. § 1a(9).
- ⁵⁷⁴ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁵⁷⁵ *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁵⁷⁶ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ⁵⁷⁷ *Howey*, 328 U.S. at 299–301.
- ⁵⁷⁸ Satoshi Nakamoto, *Bitcoin Whitepaper* (2008) (as architectural fact pattern).
- ⁵⁷⁹ *SEC v. Ripple Labs Inc.*, 2023 WL 4507900.
- ⁵⁸⁰ *Morrison v. Nat’l Australia Bank Ltd.*, 561 U.S. 247 (2010).
- ⁵⁸¹ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).
- ⁵⁸² *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).
- ⁵⁸³ *United States v. Lopez*, 514 U.S. 549 (1995).
- ⁵⁸⁴ *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁵⁸⁵ *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).
- ⁵⁸⁶ *Commodity Exchange Act*, 7 U.S.C. § 1a(9).
- ⁵⁸⁷ *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936).
- ⁵⁸⁸ *Free Enterprise Fund v. PCAOB*, 561 U.S. 477 (2010).
- ⁵⁸⁹ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁵⁹⁰ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁵⁹¹ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁵⁹² *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁵⁹³ *Howey*, 328 U.S. at 299–301.
- ⁵⁹⁴ *Morrison v. Nat’l Australia Bank Ltd.*, 561 U.S. 247 (2010).
- ⁵⁹⁵ *Bond v. United States*, 572 U.S. 844 (2014).
- ⁵⁹⁶ *Commodity Exchange Act*, 7 U.S.C. § 1 *et seq.*
- ⁵⁹⁷ 7 U.S.C. § 2(a)(1).
- ⁵⁹⁸ *Merrill Lynch, Pierce, Fenner & Smith Inc. v. Curran*, 456 U.S. 353 (1982).
- ⁵⁹⁹ *United States v. Lopez*, 514 U.S. 549 (1995).
- ⁶⁰⁰ *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁶⁰¹ *CFTC v. Erskine*, 512 F.3d 309 (6th Cir. 2008).
- ⁶⁰² *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).
- ⁶⁰³ *Securities Act of 1933*, 15 U.S.C. § 77a *et seq.*
- ⁶⁰⁴ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁶⁰⁵ *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975); *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁶⁰⁶ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁶⁰⁷ *SEC v. Ralston Purina Co.*, 346 U.S. 119 (1953).
- ⁶⁰⁸ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁶⁰⁹ *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁶¹⁰ *Bond v. United States*, 572 U.S. 844 (2014).
- ⁶¹¹ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).

- ⁶¹² *United States v. Lopez*, 514 U.S. 549 (1995).
- ⁶¹³ *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).
- ⁶¹⁴ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).
- ⁶¹⁵ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁶¹⁶ *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁶¹⁷ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁶¹⁸ *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁶¹⁹ *Commodity Exchange Act*, 7 U.S.C. § 1 *et seq.*
- ⁶²⁰ *Securities Act of 1933*, 15 U.S.C. § 77a *et seq.*
- ⁶²¹ *Chevron U.S.A. Inc. v. NRDC*, 467 U.S. 837 (1984).
- ⁶²² *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁶²³ *Gundy v. United States*, 588 U.S. 221 (2019).
- ⁶²⁴ *Free Enterprise Fund v. PCAOB*, 561 U.S. 477 (2010).
- ⁶²⁵ *Bond v. United States*, 572 U.S. 844 (2014).
- ⁶²⁶ *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247 (2010).
- ⁶²⁷ *Kiobel v. Royal Dutch Petroleum Co.*, 569 U.S. 108 (2013).
- ⁶²⁸ *NFIB v. Sebelius*, 567 U.S. 519 (2012).
- ⁶²⁹ *City of Arlington v. FCC*, 569 U.S. 290 (2013).
- ⁶³⁰ *Printz v. United States*, 521 U.S. 898 (1997).
- ⁶³¹ *Commodity Exchange Act*, 7 U.S.C. § 1 *et seq.*
- ⁶³² *United States v. Lopez*, 514 U.S. 549 (1995).
- ⁶³³ *United Housing Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁶³⁴ *Securities Act of 1933*, 15 U.S.C. § 77a *et seq.*
- ⁶³⁵ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁶³⁶ *Merrill Lynch, Pierce, Fenner & Smith Inc. v. Curran*, 456 U.S. 353 (1982).
- ⁶³⁷ *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).
- ⁶³⁸ *Morrison v. Nat’l Australia Bank Ltd.*, 561 U.S. 247 (2010).
- ⁶³⁹ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).
- ⁶⁴⁰ *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁶⁴¹ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).
- ⁶⁴² *Bond v. United States*, 572 U.S. 844 (2014).
- ⁶⁴³ *Commodity Futures Trading Comm’n v. Erskine*, 512 F.3d 309 (6th Cir. 2008).
- ⁶⁴⁴ *SEC v. Ralston Purina Co.*, 346 U.S. 119 (1953).
- ⁶⁴⁵ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁶⁴⁶ *United States v. Morrison*, 529 U.S. 598 (2000).
- ⁶⁴⁷ *Printz v. United States*, 521 U.S. 898 (1997).
- ⁶⁴⁸ *City of Arlington v. FCC*, 569 U.S. 290 (2013).
- ⁶⁴⁹ *Gregory v. Ashcroft*, 501 U.S. 452 (1991).
- ⁶⁵⁰ *Kiobel v. Royal Dutch Petroleum Co.*, 569 U.S. 108 (2013).
- ⁶⁵¹ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁶⁵² *Free Enter. Fund v. PCAOB*, 561 U.S. 477 (2010).
- ⁶⁵³ *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).
- ⁶⁵⁴ *NFIB v. Sebelius*, 567 U.S. 519 (2012).

PART II — PERSONS, ROLES, AND POWER WITHIN DECENTRALIZED SYSTEMS

[\(Return to TOC\)](#)

Part II of *The Doctrine of Anchored Decentralization* is constructed not as a series of adjacent chapters, but as a single constitutional interpretive architecture expressed through discipline-specific lenses. Its aim is not merely to describe the roles of persons inside decentralized systems, but to formally reconstruct how power, authority, and legal responsibility manifest when traditional institutional structures are replaced by protocol-based governance.

This Part proceeds from a foundational recognition: decentralization does not eliminate power — it redistributes, disguises, and re-encodes it. Where legal systems have historically relied upon visible institutions, formal delegations, and traceable chains of command, decentralized systems relocate these same functions into architecture, incentives, narratives, and code. The purpose of this Part is to render those hidden power structures legible under constitutional jurisprudence.

The architecture of this Part is deliberately multi-perspectival, but not pluralistic. Each chapter does not offer a competing viewpoint; instead, each lens contributes to a unified doctrinal grammar. Harvard Law provides the constitutional and structural spine. The Commodity Futures Trading Commission (CFTC) lens supplies enforcement-logic realism concerning how markets are actually policed. The Securities and Exchange Commission (SEC) lens outlines boundary stress, category drift, and doctrinal friction. Systems-engineering logic translates legal authority into architectural reality. Judicial interpretive compatibility ensures that the structure remains coherent within a post-Chevron constitutional order.

The reader should thus understand the following chapters not as sequential opinions, but as calibrated optical instruments examining a single legal object from different angles. Together, these chapters construct a legally operational model of power, accountability, and legitimacy inside decentralized environments.

Interpretive Architecture and Glossary Integration

A defining feature of this Part is the intentional elevation of glossaries from reference material to doctrinal infrastructure. Each glossary is designed as an instrument of legal-technical coherence. The Glossary of Terms — The Relationship of Persons to Decentralized Governance Systems (§V) establishes the actors and functional roles that replace traditional corporate and governmental hierarchies. The Glossary of Terms — Harvard Law Lens: Doctrinal Coherence and Constitutional Alignment (§VI) translates system behaviors into constitutional categories such as delegation, jurisdiction, and due process. The Glossary of Terms — CFTC Lens (§VII) and SEC Lens (§VIII) reconcile enforcement realities with doctrinal classifications, ensuring that architecture aligns with real-world regulatory mechanics rather than theoretical abstractions.

The Glossary of Terms — System-Architecture Implications (§IX) and the Glossary of Terms — Judicial Interpretive Compatibility (§X) serve a distinct structural role. They bridge engineering and jurisprudence, translating protocol design choices into legally cognizable facts that courts can evaluate without exceeding their constitutional mandate. These glossaries function as stable translation layers between disciplines, allowing constitutional reasoning to remain disciplined even as technological systems evolve.

Unified Doctrinal Logic

What emerges from this architecture is a unified interpretive framework. Power inside decentralized systems is not treated as an anomaly to existing law, but as a legally intelligible phenomenon once the correct analytic lenses are applied. Persons are not erased by decentralization; their roles are reconstructed. Authority is not dissolved; it is relocated. Responsibility is not eliminated; it becomes traceable only through architectural and behavioral evidence.

By threading Harvard Law constitutional logic through the practical enforcement realities of the CFTC, the boundary discipline of the SEC, the structural modeling of systems engineers, and the restraint principles of post-Chevron judicial review, this Part produces a single, coherent mechanism of legal interpretation. The reader is equipped not with competing theories, but with a stabilized analytical engine capable of classifying power, detecting concealed management, and restoring constitutional order to systems that present themselves as without authors.

Reading Guidance

Part II should be read as a continuous constitutional instrument. Each chapter builds forward, but also cross-locks with the others. Each glossary should be treated as operative law-logic, not ancillary support. Together, these components form a closed doctrinal system: capable of diagnosing authority, enforcing accountability, and preserving constitutional legitimacy in environments explicitly designed to obscure it.

This structure is *intentional*. It is what makes DAC not a theory of decentralization, but a lawful architecture for governing the stateless.

§V. The Relationship of Persons to Decentralized Governance Systems

[\(Return to TOC\)](#)

Digital-asset jurisprudence cannot proceed coherently without first resolving the question that traditional legal doctrine has always treated as foundational: *who is the actor, and where does responsibility attach?* In conventional administrative, corporate, and constitutional law, the identity of the decision-maker is structurally knowable and legally tethered. In distributed digital systems, that identity is often intentionally diffused, obfuscated, or disguised through architectural design. This diffusion is not legally neutral; it is jurisprudentially destabilizing.⁶⁵⁵

The Doctrine of Anchored Decentralization (DAC) resolves this instability by rejecting abstraction and reasserting *attributional clarity*. Rather than treating decentralization as an ontological claim, DAC treats it as a *fact-dependent legal condition*, evaluated through the observable behavior, structural authority, and jurisdictional posture of human and institutional actors.⁶⁵⁶

DAC's legal interpretation framework rests upon three non-negotiable analytical pillars:

Ontological Status — What the actor *is* within the system (user, validator, oracle, DAO participant, or developer)⁶⁵⁷

Functional Authority — What the actor *does* in relation to system behavior (mere participation versus directional control)⁶⁵⁸

Attributable Control — What the actor *causes* in legal effect (influence, direction, governance outcomes, or economic steering)⁶⁵⁹

This tripartite structure aligns with established Supreme Court doctrine recognizing that *liability and authority follow function, not title*.⁶⁶⁰

A decentralized system, under DAC, is therefore evaluated not by branding or marketing assertions, but by the *aggregate legal reality of human behavior within the system*. Where human actors meaningfully alter outcomes, decentralization collapses as a matter of law.⁶⁶¹

§I.A. Ontological Status of Participants

§I.A.1. Users

Users interact with protocol endpoints by submitting transactions or invoking functions that are mechanically processed without discretion. Users do not alter system rules, do not participate in governance, and do not exercise directional authority. Their presence within the system is passive rather than managerial.

Legal Status: Users are legally analogous to end-consumers in traditional product-liability and consumer-protection doctrine, where use of a product does not confer operational control or governance authority.⁶⁶² Their conduct does not trigger securities-law or commodities-law managerial tests because they do not perform control functions.⁶⁶³

§I.A.2. Miners and Validators

Miners and validators perform consensus operations, determine transaction ordering, and—in many architectures—exercise influence over network outcomes. Their role transcends mechanical computation when they possess the capacity to coordinate, censor, or manipulate transaction prioritization.

Legal Status: Under DAC, miners and validators become *potentially managerial actors* when they satisfy any of the following criteria:

- Ability to coordinate cartel-like behavior⁶⁶⁴
- Capacity to censor transactions or addresses⁶⁶⁵
- Extraction of Miner/Maximal Extractable Value (MEV)⁶⁶⁶
- Imposition of economic preferences through ordering or filtering mechanisms⁶⁶⁷

Where these capabilities exist, the role migrates from infrastructure participant to *functional manager*, triggering Howey-style attribution of managerial effort and control.⁶⁶⁸

§I.A.3. Oracles

Oracles introduce external data into a system, thereby altering state transitions and economic outcomes based on discretionary human or institutional determinations.

Legal Status: DAC treats oracles as *per se evidence of managerial authority*.⁶⁶⁹ Because oracle discretion directly changes the factual predicates upon which contracts and transactions execute, their presence embeds human control into what is otherwise marketed as an autonomous system.

DAC recognizes no currently deployed oracle model as genuinely trustless in the constitutional or administrative-law sense.⁶⁷⁰ As such, oracle-dependent systems fail claims of structural decentralization as a matter of law.

§I.A.4. DAO Members

DAO participants engage in protocol-level voting, parameter modification, treasury direction, and structural change through token-weighted or reputation-based mechanisms.

Legal Status: DAO members constitute *collective managerial actors*. Their function is legally analogous to corporate directors, controlling shareholders, and administrative decision-makers.⁶⁷¹ Their aggregated authority implicates:

- Corporate governance analogs⁶⁷²
- Securities-law managerial effort doctrines⁶⁷³
- Administrative law non-delegation constraints⁶⁷⁴

Decentralization does not exist where governance is executed through collective human discretion.

§I.A.5. Developers and Repository Maintainers

Developers and code-base maintainers possess latent, informal, and often decisive authority over system evolution through:

- Pull request approval⁶⁷⁵
- Repository control⁶⁷⁶
- Client update dominance⁶⁷⁷
- Social influence over upgrade coordination⁶⁷⁸

Legal Status: DAC treats these actors as *structural managers*, regardless of formal disclaimers. Legal accountability attaches to *capacity*, not self-description.⁶⁷⁹

§I.A.6. DAC Governing Principle (Controlling Doctrine)

*If a role can meaningfully alter system behavior, it is managerial.*⁶⁸⁰

This principle collapses the vast majority of decentralization claims in modern digital-asset systems, not as a policy choice, but as a matter of constitutional and administrative inevitability.⁶⁸¹

§I.B. Implied Agency Through Coordination

Legal systems do not permit sophisticated actors to evade responsibility merely by fragmenting formal identity. Courts have long recognized that where *coordination produces unified legal or economic outcomes*, agency may be implied as a matter of law, even in the absence of explicit contractual authority.⁶⁸² This principle operates through doctrines of *implied agency*, *joint enterprise*, and *concerted action*, each of which treats coordinated conduct as functionally managerial when the structural effect is unified control.⁶⁸³

In decentralized digital systems, the absence of formal titles does not negate the presence of *functional governance*. Distributed participants may claim independence, yet courts are empowered to look past form and examine *operational reality*. Where validators, developers, or token-holders act in coordinated fashion, *the law collapses multiplicity into singular managerial identity*.⁶⁸⁴

Administrative law provides an instructive analog through what Harvard constitutional and regulatory scholarship has described as the doctrine of *effective control*. Under this framework, informal influence that produces binding or predictable outcomes is treated as *functional governance*, regardless of whether that influence is technically compulsory.⁶⁸⁵ This concept maps directly onto decentralized system behaviors such as:

- Validator collusion to reorder or censor transactions⁶⁸⁶
- Multisignature councils coordinating discretionary upgrades⁶⁸⁷
- Coordinated hard or soft forks altering protocol behavior⁶⁸⁸
- DAO governance proposals authored or strategically guided by founders⁶⁸⁹

Each of these actions transforms coordination into *de facto management* under settled doctrines of implied authority.

DAC therefore treats *coordination itself as dispositive evidence of governance*.⁶⁹⁰ Where coordination exists, decentralization collapses as a matter of law, because unified outcomes are the hallmark of managerial control rather than emergent neutrality.⁶⁹¹

This principle has two immediate jurisdictional consequences.

First, for purposes of *securities law*, coordinated governance activity constitutes “the efforts of others” under *SEC v. W.J. Howey Co.*, because the network’s economic outcomes are being shaped by collective managerial enterprise rather than automated infrastructure.⁶⁹²

Second, for purposes of *commodities law*, coordination negates commodity status, because a commodity, by definition, must be free from discretionary managerial control over its operation or value.⁶⁹³

DAC therefore formalizes the controlling rule:

Coordination = Governance = Management.⁶⁹⁴

This rule is not a policy position. It is the inevitable consequence of agency doctrine, administrative functionalism, and constitutional structure.⁶⁹⁵

Where coordination exists, *law attaches*.

Where law attaches, *decentralization does not exist*.

§I.C. Agency, Authority, and Attribution

Legal systems do not recognize power by title alone. They recognize power by *function*, *effect*, and *causation*. In determining whether a participant in a decentralized system is legally managerial, DAC applies a functional test grounded in administrative law, securities law, and constitutional accountability doctrine.⁶⁹⁶

Three questions govern this inquiry.

§I.C.1. Does the actor perform discretionary actions?

Discretion is the legal dividing line between passive infrastructure and managerial authority. Where an actor exercises *choice*, *judgment*, or *selective control* over system behavior, that actor moves from participant to manager.⁶⁹⁷

Indicative discretionary acts include:

- Upgrading or modifying protocol code⁶⁹⁸
- Selecting, onboarding, or removing validators⁶⁹⁹
- Adjusting inflation or issuance schedules⁷⁰⁰
- Moderating or steering governance forums⁷⁰¹
- Architecting token incentives or economic reward structures⁷⁰²

The presence of discretion satisfies the first element of managerial authority under DAC.

§I.C.2. Does the actor's conduct materially alter system outcomes?

Authority is not measured by intent; it is measured by *effect*. Where an actor's conduct changes how the system behaves in practice, legal attribution attaches.⁷⁰³

Material alteration includes:

- Selection or filtration of oracle data inputs⁷⁰⁴
- Validator proposal ordering or inclusion bias⁷⁰⁵
- Coordination or execution of protocol forks⁷⁰⁶
- Drafting, timing, or structuring governance proposals⁷⁰⁷

Courts have consistently held that actors whose behavior materially affects outcomes are treated as *de facto decision-makers*, even in the absence of formal appointment.⁷⁰⁸

§I.C.3. Would the system behave differently absent this person's conduct?

This is the controlling inquiry.

If removal of a person's conduct changes system behavior, outcomes, stability, or direction, that person is legally managerial as a matter of law.⁷⁰⁹ No formal title is required. No self-disclaimers are controlling. The behavioral counterfactual governs.⁷¹⁰

This principle mirrors foundational jurisprudence holding that *causation establishes responsibility* in administrative, tort, and securities contexts.⁷¹¹

§I.C.4. Legal Consequence (Dispositive Rule)

Where discretionary conduct exists, where system outcomes are materially altered, and where removal of the actor would change system behavior, *managerial status attaches by operation of law*.⁷¹²

Once managerial status attaches:

- Commodity classification collapses⁷¹³
- Securities-law obligations trigger automatically⁷¹⁴
- Disclosure, registration, and fiduciary standards attach⁷¹⁵

DAC therefore formalizes the controlling legal rule:

*Managerial actors collapse commodity status and activate securities-law jurisdiction.*⁷¹⁶

This rule is not policy. It is constitutional inevitability.

§I.D. The Founder Problem

DAC treats the presence of a founder not as a sociological fact, but as a *structural legal condition*. A founder is not merely an originator of code; a founder is a *persistent vector of authority* unless the doctrine can confirm total and irreversible severance.⁷¹⁷

Under DAC, a founder disqualifies commodity classification unless the founder:

- Fully departs from all operational involvement⁷¹⁸
- Relinquishes all formal and informal influence⁷¹⁹
- Ceases public commentary that could affect system behavior⁷²⁰
- Holds no privileged permissions, credentials, or access⁷²¹

- Cannot affect code, governance, or normative coordination⁷²²

Absent proof of total severance, the founder constitutes *presumptive centralization as a matter of law*.⁷²³

§I.D.1. Foundational Communications

Foundational communications — whether styled as technical documentation or informal commentary — function as legally operative instruments when they induce reliance or expectation.⁷²⁴

DAC treats the following as *managerial inducements* when authored or directed by founders:

- Whitepapers promising system evolution or economic behavior⁷²⁵
- Published roadmaps projecting future functionality⁷²⁶
- Discord or governance-forum administration⁷²⁷
- GitHub instructions, comments, or merge directives⁷²⁸

These communications satisfy:

- **Howey prong two** (“common enterprise”), and
- **Howey prong three** (“expectation of profits from the efforts of others”)⁷²⁹

Not because of subjective intent, but because of *objective legal effect*.

§I.D.2. Persistent Influence Analysis (DAC Test)

DAC formalizes a controlling doctrine:

*If a founder can influence the network — even socially — the system is not decentralized.*⁷³⁰

This analysis extends beyond formal control and captures *socially mediated governance power*, including:

- Public endorsements that affect validator or token-holder behavior⁷³¹
- Social-media announcements shaping economic expectations⁷³²
- Coordination of economic incentives through informal signaling⁷³³
- Upgrades initiated or informally blessed by the founder⁷³⁴
- “Community” proposals architected, timed, or promoted by the founder⁷³⁵

Courts have consistently treated *latent or informal influence* as legally cognizable control where it produces systemic effect.⁷³⁶

§I.D.3. Managerial Nexus Through Repositories

DAC treats control over code repositories as structurally dispositive.

Possession of repository privileges — whether exercised or merely retained — constitutes:

- Potential authority⁷³⁷
- Latent governance capacity⁷³⁸
- Constructive possession of managerial influence⁷³⁹

Even unused control is legally active because **the power to act is itself a form of control** under settled jurisprudence.⁷⁴⁰

A system in which a founder:

- retains merge privileges,
- maintains repository credentials, or
- influences client implementations

cannot be categorized as a commodity as a matter of constitutional and securities law.⁷⁴¹

§I.D.4. DAC Controlling Rule (Founder Doctrine)

*The existence of a founder is presumptive evidence of centralization.*⁷⁴²

This presumption may be rebutted only by proof of total, irreversible, and verifiable severance.⁷⁴³

Absent such proof, the system is governed.
And governed systems are not commodities.

§I.E. The Triad of Decentralization — Ontological, Behavioral, Jurisdictional

Decentralization, as argued in marketing and technical literature, is commonly treated as a singular architectural attribute. DAC rejects that premise as legally illiterate. Law does not evaluate systems by aspirational form; it evaluates them by *structure, behavior, and jurisdictional consequence*.⁷⁴⁴

All decentralization claims must therefore satisfy *three independent and non-substitutable axes*. Each axis is necessary. None is sufficient in isolation.⁷⁴⁵

Where any axis fails, decentralization collapses as a matter of law.⁷⁴⁶

§I.E.1. Ontological Decentralization — Form

Ontological decentralization concerns the *shape* of the system.

Indicative markers include:

- Distributed node architecture⁷⁴⁷
- Replicated ledgers or state machines⁷⁴⁸
- Absence of a single mandatory execution point⁷⁴⁹

DAC recognizes that distributed form *has no independent legal relevance* where incentives, governance, or discretion override structural dispersion.⁷⁵⁰

A system may appear decentralized in topology while operating centrally in legal fact. Courts are empowered to disregard form where substance is otherwise.⁷⁵¹

Form does not control law.
Behavior does.

§I.E.2. Behavioral Decentralization — Incentives and Control

Behavioral decentralization is the controlling inquiry.

This axis asks whether participants are free from:

- Coordinated influence⁷⁵²
- Managerial direction⁷⁵³
- Profit-seeking inducements tied to governance roles⁷⁵⁴

DAC holds that **architecture does not decentralize; conduct does.**

Where participants act in coordinated fashion, respond to founder signals, or participate in incentive structures tied to control or governance, decentralization fails as a matter of law.⁷⁵⁵

This principle is rooted in foundational doctrine:

The law evaluates what actors **do**, not what systems **claim**.⁷⁵⁶

§I.E.3. Jurisdictional Decentralization — Locationlessness

Jurisdictional decentralization is the most aggressively misunderstood claim in decentralized-systems discourse.

Actors frequently assert that a system exists “everywhere” or “nowhere” so as to evade constitutional and regulatory jurisdiction.

DAC rejects this argument categorically.⁷⁵⁷

The controlling principles are simple:

If people operate the system, the system exists **somewhere**.⁷⁵⁸

If code is updated, **someone updated it**.⁷⁵⁹

If governance exists, **jurisdiction attaches**.⁷⁶⁰

The law does not recognize **jurisdictional vapor**. It recognizes people, conduct, and consequence.

Therefore:

*Jurisdiction follows persons, not protocols.*⁷⁶¹

This principle defeats geography-abstraction strategies and collapses attempts to evade U.S. jurisdiction through architectural diffusion.⁷⁶²

Where human actors exist, jurisdiction attaches.

Where jurisdiction attaches, constitutional constraints govern.

§I.E.4. DAC Controlling Rule (Triad Doctrine)

Form without behavior is meaningless.

Behavior without jurisdiction is impossible.

*And jurisdiction follows persons, not protocols.*⁷⁶³

Decentralization exists only when **all three axes hold**.

Failure of any axis collapses the claim.

§I.F. Policymaker Interpretation (Plain-English)

“No citations are included by design, as this section is drafted expressly for use by the United States Congress. It is written in plain constitutional language to preserve legislative primacy, ensure direct usability in statutory drafting, and prevent judicial over-filtering of Congressional authority. This structure equips lawmakers with clear, sovereign reasoning rather than procedural dependency.”

This Doctrine resolves the confusion surrounding digital systems by returning the analysis to first principles that lawmakers intuitively understand.

At its core, *people run protocols*.
They do not run themselves.

People decide when systems change.
People determine how rules are applied.
People influence which outcomes occur.
People manage upgrades, steer governance, and shape market behavior.

If *human beings* can influence the system, then the system is *not decentralized in law*, regardless of what it claims in marketing, whitepapers, or public testimony.

This is not a technological argument.
It is a constitutional one.

When people control behavior, discretion exists.
When discretion exists, management exists.
When management exists, the object cannot be a commodity.

This plain truth explains three systemic failures Congress has observed:

First, it explains *why misclassified securities proliferated* — assets were labeled “commodities” despite embedded managerial control.

Second, it explains *why regulators became overwhelmed* — agencies were forced to litigate architectural fictions instead of applying settled legal doctrine.

Third, it explains *why the Doctrine of Anchored Decentralization (DAC) is necessary* — because the existing framework lacked a constitutional anchor capable of separating governed systems from truly neutral infrastructure.

DAC restores that anchor.

It gives Congress a defensible, judicially coherent rule:

If people control it, it is governed.
If it is governed, it is not a commodity.

This re-establishes constitutional order without expanding federal power, without creating novel agencies, and without burdening Congress with technical ambiguity.

It is a rule of law, not a rule of technology.

§I.G. Core Arguments Introduced in This Section

(No citations or superscript references are included by design — this section is drafted expressly for use by the United States Congress.)

This section advances a foundational clarification: decentralized systems are not governed by abstractions — they are governed by people. Every functional outcome in a so-called decentralized architecture flows from human behavior, human coordination, and human discretion. The narrative that “code governs” is legally insufficient. Code does not initiate itself, amend itself, advocate for itself, or defend itself. People do. Therefore, where people exist in roles capable of shaping outcomes, management exists as a matter of law.

Participants — whether labeled users, validators, developers, DAO members, or maintainers — function as managers when their conduct alters system behavior, steers outcomes, or influences economic direction. Formal titles are irrelevant. In law, function governs classification, not nomenclature. If a participant can shape or steer outcomes, that participant is a managerial actor, and the system is governed — not decentralized.

Coordination is equally dispositive. Management does not require formal hierarchy. It arises through concerted action. When independent actors align behavior to produce unified outcomes — through voting, signaling, social coordination, multisignature agreements, or synchronized software changes — the law recognizes this as managerial authority exercised collectively. Decentralization does not survive coordination that yields governance.

Founders are incompatible with commodity status. A commodity, by definition, cannot exist in a dependent relationship with a human architect. Where founders remain communicative, influential, socially authoritative, or structurally capable of affecting outcomes — directly or indirectly — their presence constitutes a permanent managerial shadow. A system that depends upon, responds to, or is influenced by its founder cannot meet the legal ontology of a commodity.

Governance is management. This is the central correction imposed by this framework. The digital asset industry has attempted to rebrand governance as “community participation” or “technical maintenance.” That semantic shift is legally void. If a mechanism sets rules, alters incentives, adjudicates penalties, or coordinates evolution, it is governance. Governance is management. Management defeats decentralization as a matter of constitutional structure.

True decentralization must satisfy three independent dimensions simultaneously: ontological, behavioral, and jurisdictional. Structural dispersion of nodes without behavioral independence is a façade. Behavioral dispersion without jurisdictional clarity is a fiction. Jurisdictional ambiguity without structural neutrality is constitutional evasion. Performative decentralization — surface-level distribution paired with hidden coordination — is not decentralization at all.

Finally, jurisdiction attaches to persons, not to protocols. Software does not exist in a vacuum. Code does not live nowhere. Where people operate, coordinate, maintain, upgrade, influence, or defend a system, that system exists somewhere in constitutional space. The myth of the “stateless

protocol” dissolves under even minimal legal scrutiny. Persons create jurisdiction. Persons create responsibility. Persons create accountability.

This section therefore establishes the unavoidable principle: decentralized systems are governed to the extent that people are involved — and people are always involved.

§I.H. Arguments and Counter-Arguments

(No citations or superscript references are included by design — this section is drafted expressly for use by the United States Congress.)

This section directly addresses the most common industry defenses offered to resist legal clarity. Each counter-argument is translated into constitutional and statutory reality to prevent ambiguity, misdirection, or rhetorical evasion. The purpose of these responses is to equip lawmakers with clear, durable reasoning that cannot be undermined by technical vocabulary or industry narratives.

Argument 1

“Validators don’t manage; they just run code.”

Counter-Argument

Running code is not a neutral act when the code itself is discretionary. Validators do not merely execute mechanical functions; they decide transaction order, determine inclusion or exclusion of activity, exercise censorship power, extract value through prioritization, and shape economic realities through discretionary behavior. When a human actor exercises judgment through code, that code becomes an instrument of management. Management does not disappear because it is mediated through software. It simply becomes more opaque. The law cares about function, not the medium through which that function is exercised.

Argument 2

“DAO voting is democratic and therefore decentralized.”

Counter-Argument

Democracy is not decentralization. DAO voting is a governance mechanism. Governance is the setting of rules, the adjustment of incentives, the authorization of change, and the imposition of consequences. Those are managerial functions. The fact that management is performed by many rather than few does not eliminate management. It only distributes it. A distributed management structure is still management, and management is legally incompatible with commodity ontology.

Argument 3

“Founders don’t control anything after launch.”

Counter-Argument

Control does not require formal authority. Founders exert influence through speech, signaling, reputation, social authority, technical credibility, and structural proximity to repositories, infrastructure, and community channels. Influence that alters behavior is control in functional legal terms. When markets respond to founders, when communities follow founders, and when technical ecosystems align behind founders, managerial power persists even in the absence of formal titles.

Argument 4

“Protocol changes are community driven.”

Counter-Argument

“Community” is not a legal entity and not a legal defense. Coordinated conduct producing unified outcomes is managerial behavior regardless of how it is labeled. When upgrades are proposed, debated, adopted, deployed, and enforced through coordinated human action, management exists. The absence of hierarchy does not eliminate authority. The collective exercise of discretion is still discretion. “Community-driven” is a rhetorical label, not a constitutional standard.

§I.H.1. Legislative Protective Principle

For lawmakers, this section establishes a protective rule of thumb:

If human discretion exists → management exists.

If management exists → decentralization collapses.

If decentralization collapses → commodity status is legally impossible.

This framework insulates Congress from technical confusion, lobbying pressure, and rhetorical misdirection while preserving constitutional integrity and regulatory clarity.

§I.I. Doctrinal Summary — Chapter V

The Relationship of Persons to Decentralized Governance Systems

Chapter V establishes a foundational legal truth within the DAC framework: decentralized systems do not operate independently of human agency. They are not self-executing organisms, nor autonomous legal beings. They are operated, influenced, guided, restrained, and shaped by persons. This chapter restores the primacy of the individual legal actor as the core unit of constitutional, administrative, and economic accountability.

The doctrine articulated here rejects the fiction that decentralization is an architectural condition alone. Instead, it affirms that decentralization is a *legal condition of human powerlessness*. Where any person or group of persons can meaningfully influence system behavior, outcomes, rule changes, or economic direction, decentralization collapses as a matter of law.

This chapter constructs the legal framework that makes later classifications unavoidable:

- Users are legally passive when their conduct cannot alter rules or system outcomes.
- Validators become legally managerial when their coordination, censorship ability, or economic extraction shapes system behavior.
- Oracles function as de facto sovereign actors because they inject external discretion into otherwise deterministic systems.
- DAO participants are not “community members” but collective administrators exercising managerial authority.
- Developers and repository maintainers retain structural power even if never exercised, and latent control is treated as actual authority under DAC.

A central doctrinal conclusion emerges:

Decentralization is not the absence of a corporate entity; it is the absence of attributable human power.

Where any actor can influence:

- upgrades,
- issuance,
- economic incentives,
- protocol direction, or
- governance outcomes,

...that actor is legally managerial, and the system becomes governed as a matter of law.

The chapter also establishes that *coordination itself is a legal act*. Even informal, pseudonymous, or algorithmically mediated coordination creates implied agency, joint enterprise, and collective managerial authority. Thus, “no headquarters” does not equate to “no governance,” and “no CEO” does not equate to “no control.”

The doctrines of *ontological role*, *functional authority*, and *attributable causation* become the constitutional spine of DAC’s personhood analysis. Law attaches not to technical labels but to

behavioral consequences: if the system would behave differently absent the actor, that actor is legally responsible.

Chapter V therefore performs a critical function in the structure of DAC:

- It collapses the myth of “stateless protocols” by tying jurisdiction to persons.
- It collapses the myth of “autonomous code” by identifying the humans behind discretion.
- It collapses marketing-based decentralization by requiring verifiable human powerlessness.

By the end of this chapter, the reader is left with a clear constitutional anchor:

A system is only as decentralized as the people who cannot control it.

This doctrinal summary prepares the groundwork for subsequent chapters by transforming decentralization from a narrative into a legally enforceable condition and relocating constitutional accountability back to its proper home — human actors subject to law, jurisdiction, and consequence.

§V. Glossary of Terms — The Relationship of Persons to Decentralized Governance Systems

[\(Return to TOC\)](#)

This Glossary of Terms functions as the definitional control layer of Chapter V, serving as the linguistic and conceptual substrate through which courts, regulators, scholars, and policymakers may interpret the legal relationship between human actors and decentralized governance systems. The terms codified herein are not descriptive abstractions; they are operational legal instruments designed to eliminate ambiguity, fully constrain interpretive drift, and prevent the re-emergence of discretionary narratives that have historically undermined regulatory coherence in distributed systems.

Table 23 (*Actor Classification and Legal Consequence Matrix*) establishes the first structural boundary by mapping ontological role to legal consequence, converting abstract participation categories into enforceable classifications. Table 24 (*Behavior-Based Managerial Risk Index*) advances this architecture by translating conduct—not labels—into measurable indicators of managerial authority. Table 25 (*Jurisdictional Attachment via Human Conduct Matrix*) completes the framework by demonstrating how human behavior, once identified and classified, generates constitutionally cognizable jurisdictional anchors regardless of protocol assertions of “statelessness.”

This Glossary therefore operates not as a mere reference aid, but as a doctrinal stabilization mechanism. Each definition is intentionally constructed to foreclose semantic manipulation, eliminate regulatory arbitrage, and harmonize judicial, administrative, and legislative interpretation. By constraining the language of “personhood,” “authority,” “control,” and “decentralization,” this section ensures that all subsequent legal analysis proceeds from controlled variables rather than rhetorical constructs — thereby restoring the primacy of constitutional structure over technological narrative.

The aim of this architecture is not expansion of federal power, but restoration of lawful attribution: that where persons act, law follows; where discretion exists, accountability attaches; and where power is exercised, constitutional order must govern.

Table 23. Actor Classification and Legal Consequence Matrix

Actor Class	Ontological Role	Typical Functions	Managerial Risk Level	DAC Legal Classification	Primary Legal Consequence
User	Passive participant	Executes transactions, interacts with interfaces	None	Non-managerial participant	No fiduciary duty; treated as consumer

Validator / Miner	Consensus operator	Orders transactions, builds blocks, enforces protocol	Medium → High	Potential managerial actor	May trigger securities analysis if coordination exists
Oracle Operator	External data injector	Supplies price feeds, real-world inputs, settlement data	High (per se)	De facto managerial actor	Presumptive evidence of centralization
DAO Member	Governance participant	Votes on proposals, allocates treasury, modifies rules	High	Collective managerial actor	Triggers Howey managerial-effort analysis
Developer / Maintainer	Technical authority	Manages code, repositories, upgrades, merges	High	Structural managerial actor	Constitutes governance authority
Founder	Originating authority	Strategic vision, public communications, coordination	Presumptive High	Presumptive centralization vector	Disqualifies commodity classification
Foundation / Council Member	Institutional steward	Supervises development, allocates funds, strategic planning	High	Corporate-analog governance actor	Treated as managerial entity
Multisig Signatory	Control gatekeeper	Authorizes upgrades, treasury execution	High	Executive control actor	Evidence of discretionary authority
Validator Cartel Participant	Coordinated consensus block	Collusion, MEV extraction, censorship	Very High	Joint enterprise actor	Implied agency / concerted action liability
Protocol Designer (Economic)	Incentive architect	Designs tokenomics, inflation policies, slashing rules	High	Quasi-legislative actor	Triggers securities and non-delegation concerns

Interpretive Key (Congressional Use Format)

Symbol	Meaning
None	No control or discretion
Medium	Potential managerial conduct if coordinated
High	Discretionary authority likely present
Very High	Functional governance / management confirmed

Actor (Legal Actor)

A natural person or legally cognizable entity whose conduct produces legal, economic, or systemic consequences. Within DAC, an actor is any person whose behavior may be attributed with authority, influence, or control over a decentralized system.

Attributable Control

The legal capacity to link system outcomes, governance actions, or behavioral changes to a specific person or set of persons, regardless of formal title, anonymity, or organizational structure.

Behavioral Decentralization

A condition in which no person's conduct, influence, coordination, or discretion can materially alter system rules, system direction, or economic outcomes.

Constructive Authority

The recognition of power based not on formal appointment but on practical capacity to influence outcomes, including latent abilities such as code access, reputational authority, or social coordination.

DAO Member (Decentralized Autonomous Organization Participant)

A participant exercising voting, proposal, or influence power within a governance structure. Under DAC, DAO members are treated as collective managers rather than passive community participants.

Developer / Repository Maintainer

Any person with access, influence, or authority over source code, implementation channels, or system evolution, including those with commit rights, merge authority, or recognized technical leadership.

Effective Control

A legal assessment standard examining whether a person's actions, coordination, or influence produce de facto governance, regardless of organizational formalities.

Founder Influence

The continuing authority exercised by an originating person through communication, reputation, coordination capacity, architectural privilege, or latent technical power.

Implied Agency

A legal relationship inferred by courts when coordinated behavior produces unified outcomes, even absent formal contracts, job titles, or explicit hierarchical structures.

Jurisdictional Attachment

The legal doctrine that sovereign authority connects to natural persons and their conduct, rather than to abstract technical architectures.

Managerial Authority

The exercise of discretionary power over system rules, governance, parameters, or outcomes. Under DAC, any managerial authority disqualifies a system from commodity classification.

Managerial Shadow

A DAC-specific term describing residual or indirect managerial influence manifested through communication, coordination, public signaling, governance design, or technical privilege.

Miner / Validator

A participant responsible for transaction ordering, block creation, and consensus participation, who may be legally reclassified as managerial where discretion or coordination influences system outcomes.

Non-Managerial Participant

A person whose interaction with a system cannot alter rules, outcomes, governance, or economic direction, and whose behavior is therefore legally passive.

Ontological Status (of Participants)

The legal and structural classification of what an actor *is* within a system (user, validator, oracle, developer, founder, DAO participant), rather than what the actor claims to be.

Oracle

A mechanism or person injecting external data into a system. Under DAC, oracles are treated as high-risk managerial actors due to their discretionary capacity.

Performative Decentralization

A condition where decentralization is claimed rhetorically or architecturally but contradicted by human behavioral control or influence.

Protocol Governance

Any mechanism by which system behavior is altered, enforced, adapted, or directed through proposals, voting, coordination, or technical modification.

Structural Accountability

The legal requirement that those who exercise control or influence can be identified, attributed, and held responsible under constitutional and administrative law.

Triad of Decentralization

The DAC framework requiring simultaneous ontological, behavioral, and jurisdictional decentralization for a system to qualify as truly decentralized.

User

A person interacting with protocol interfaces who lacks the ability to influence rules, governance, or outcomes and is therefore analogous to a consumer under product-liability doctrine.

Validator Cartelization

The coordination of validators to exercise collective influence, censorship, economic extraction, or governance impact, treated under DAC as implied agency and managerial activity.

Void of Human Agency (Legal Condition)

A DAC standard requiring the practical impossibility of human-directed influence for a system to qualify as decentralized.

Table 24. Behavior-Based Managerial Risk Index

Behavioral Activity	Description	Managerial Risk Level	DAC Legal Interpretation	Primary Constitutional Impact
Passive protocol use	Sending transactions, holding tokens, reading chain state	None	Non-managerial conduct	No impact
Transaction ordering	Reordering, prioritizing, or censoring user transactions	Medium	Potential managerial discretion	Triggers control analysis
Validator coordination	Collusion, shared infrastructure, cartel formation	High	Implied agency / joint enterprise	Collapses decentralization claims
Oracle data selection	Choosing external data feeds, pricing inputs, settlement data	High (per se)	De facto managerial authority	Presumptive centralization
Governance voting	Voting on protocol changes or treasury allocations	High	Collective management function	Triggers Howey managerial-effort test

Proposal drafting	Authoring or steering governance proposals	High	Quasi-legislative conduct	Non-delegation and securities exposure
Code commits	Writing, merging, or approving code changes	Very High	Structural control authority	Disqualifies commodity status
Repository admin rights	Control over GitHub or comparable source infrastructure	Very High	Latent managerial power	Constructive possession of authority
Fork coordination	Organizing or signaling chain splits	Very High	Managerial orchestration	Evidence of governance control
Tokenomics design	Adjusting inflation rates, emission curves, staking yields	Very High	Economic governance	Triggers securities jurisdiction
Emergency upgrades	Security patches or “crisis” changes	Very High	Executive-style discretion	Due-process deficit identified
Public signaling by founders	Tweets, roadmap speeches, endorsements	High	Soft-power governance	Howey inducement element
Treasury control	Directing ecosystem funds or grants	Very High	Managerial discretion	Corporate-law analog triggered
MEV extraction	Strategic ordering for profit	High	Economic manipulation	Evidence of managerial intent

Risk Level Index (Interpretive Key)

Risk Level	Meaning under DAC
None	Purely passive, non-managerial
Medium	Potential control if coordinated
High	Discretionary managerial conduct likely
Very High	Functional governance / control confirmed

Table 24 establishes that managerial risk emerges not from architecture alone, but from human behavior that introduces discretion, coordination, and control into decentralized systems. These behavioral signals are not merely technical indicators; they operate as legal evidence of functional governance. Table 25 carries this logic forward by demonstrating how those same behaviors generate constitutionally cognizable jurisdictional anchors. Once discretion, coordination, or influence is identified, jurisdiction follows naturally—not from the protocol, but from the people whose conduct creates binding legal consequences. In this way, DAC links behavioral reality to constitutional authority, closing the gap between theoretical decentralization and enforceable federal jurisdiction.

Table 25. Jurisdictional Attachment via Human Conduct Matrix

Human Conduct	Location of Actor	System Connection	DAC Jurisdictional Finding	Constitutional Attachment Result
User transaction execution	U.S. territory	Direct protocol interaction	Weak jurisdictional signal	Jurisdiction attaches to user, not protocol
Validator node operation	U.S. or allied territory	Consensus participation	Strong jurisdictional signal	Federal jurisdiction constitutionally anchored
Validator coordination	Multi-state / international	Collusive or cartelized operation	Very strong jurisdictional signal	Joint enterprise doctrine applies
Oracle data injection	U.S. or foreign	External data controls system state	Per se jurisdictional anchor	Jurisdiction attaches through data authority
Developer code commits	Any sovereign territory	Source control exercised	Strong jurisdictional signal	Regulatory authority is constitutionally valid
Repository admin access	Any jurisdiction	Latent technical control	Constructive jurisdiction	Discretion creates jurisdiction
DAO governance voting	Distributed	Voting alters system behavior	Imputed jurisdiction	Governance activities anchor jurisdiction
Founder communications	Any location	Market signaling / orchestration	Strong jurisdictional signal	Speech + coordination = jurisdictional nexus

Foundation operations	Domestic or offshore	Treasury or strategic direction	Strong jurisdictional anchor	Corporate-analog jurisdiction attaches
Multisig execution	Any location	Control over assets or upgrades	Strong jurisdiction	Human authorization defeats statelessness
Fork coordination	Any jurisdiction	Chain split orchestration	Very strong signal	Human-led divergence creates sovereign nexus
Emergency protocol patch	Any sovereign	Crisis-level intervention	Per se jurisdiction	Executive-like power jurisdictionally anchors
Coordinated MEV activity	International	Economic manipulation of ordering	Strong jurisdiction	Market manipulation jurisdiction attaches
Governance proposal drafting	Any location	Rule creation and system redesign	Strong jurisdiction	Legislative-function nexus established

Matrix Key (Congressional Interpretation Guide)

Strength of Jurisdictional Signal	Meaning under DAC
Weak	Person-based jurisdiction only
Strong	System + actor jointly create nexus
Very Strong	Coordinated or discretionary authority = constitutional attachment

Core DAC Principle Reflected in Table 25

Jurisdiction does not attach to code.

Jurisdiction attaches to people.

Where people act, the Constitution governs.

Doctrinal Conclusion — The Relationship of Persons to Decentralized Governance Systems

Chapter V establishes a dispositive principle: decentralized systems do not exist in isolation from human agency. They are operated, influenced, maintained, coordinated, and evolved by persons whose conduct produces legally cognizable effects. The accompanying Glossary of Terms functions as the doctrinal lock that prevents this reality from being diluted by marketing language, technological mysticism, or rhetorical abstraction.

Read together, Chapter V and its Glossary construct a closed-loop attribution framework. Table 23 translates roles into legal consequences by converting participant identity into enforceable classification. Table 24 establishes that managerial risk arises from behavior, not titles or disclaimers. Table 25 completes the architecture by proving that jurisdiction does not attach to code, but to the human beings whose conduct animates the system.

This structure forecloses the central fiction of the digital-asset era: that decentralization can exist independent of people. Under DAC, decentralization is not a claim, a diagram, or a design pattern. It is a provable condition of human constraint. Where a person can influence outcomes, discretion exists. Where discretion exists, management exists. Where management exists, commodity classification collapses as a matter of law.

The Glossary does not merely define terms; it eliminates interpretive escape. Each term locks meaning to constitutional function, ensuring that no court, agency, or litigant can reintroduce ambiguity without openly contradicting doctrine. In this way, the Glossary becomes not a reference list, but an enforcement device.

The combined effect of Chapter V is therefore structural, not rhetorical. It does not expand federal power. It restores constitutional attribution by returning the law to its proper subject: people, not protocols. Jurisdiction follows conduct. Liability follows authority. Accountability follows discretion. No architecture that relies on human coordination can evade these principles by retreating into claims of “statelessness” or “autonomy.”

Under DAC, the question is no longer whether a system is decentralized in theory. The only legally cognizable question remaining is this:

Who can change it?

Who can influence it?

Who is responsible for it?

Where those answers point to people, the Constitution governs.

Where the Constitution governs, evasion ends.

This closes the analytical loop of Chapter V and establishes the human anchor required for all subsequent doctrines of DAC.

References

- ⁶⁵⁵. *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁶⁵⁶. *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁶⁵⁷. *United States v. Dotterweich*, 320 U.S. 277 (1943).
- ⁶⁵⁸. *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).
- ⁶⁵⁹. *Ashcroft v. Iqbal*, 556 U.S. 662 (2009).
- ⁶⁶⁰. *United States v. Park*, 421 U.S. 658 (1975).
- ⁶⁶¹. *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁶⁶². *Restatement (Second) of Torts* § 402A (1965).
- ⁶⁶³. *Kurns v. Railroad Friction Prods. Corp.*, 565 U.S. 625 (2012).
- ⁶⁶⁴. *Interstate Circuit, Inc. v. United States*, 306 U.S. 208 (1939).
- ⁶⁶⁵. *Packingham v. North Carolina*, 582 U.S. 98 (2017).
- ⁶⁶⁶. *FTC v. Indiana Federation of Dentists*, 476 U.S. 447 (1986).
- ⁶⁶⁷. *United States v. Apple Inc.*, 791 F.3d 290 (2d Cir. 2015).
- ⁶⁶⁸. *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁶⁶⁹. *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁶⁷⁰. *Department of Transportation v. Association of American Railroads*, 575 U.S. 43 (2015).
- ⁶⁷¹. *Burwell v. Hobby Lobby Stores, Inc.*, 573 U.S. 682 (2014).
- ⁶⁷². *Dodge v. Ford Motor Co.*, 170 N.W. 668 (Mich. 1919).
- ⁶⁷³. *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ⁶⁷⁴. *Gundy v. United States*, 588 U.S. ____ (2019).
- ⁶⁷⁵. *Auer v. Robbins*, 519 U.S. 452 (1997).
- ⁶⁷⁶. *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984).
- ⁶⁷⁷. *West Virginia v. EPA*, 597 U.S. ____ (2022).
- ⁶⁷⁸. *Twitter, Inc. v. Taamneh*, 598 U.S. ____ (2023).
- ⁶⁷⁹. *Slack Technologies, LLC v. Pirani*, 598 U.S. 759 (2023).
- ⁶⁸⁰. *Humphrey's Executor v. United States*, 295 U.S. 602 (1935).
- ⁶⁸¹. *NFIB v. Sebelius*, 567 U.S. 519 (2012).
- ⁶⁸². *Restatement (Third) of Agency* § 1.01 (2006).
- ⁶⁸³. *Interstate Circuit, Inc. v. United States*, 306 U.S. 208 (1939).
- ⁶⁸⁴. *United States v. Wise*, 370 U.S. 405 (1962).
- ⁶⁸⁵. *Jody Freeman, The Private Role in Public Governance*, 75 N.Y.U. L. Rev. 543 (2000).
- ⁶⁸⁶. *FTC v. Indiana Federation of Dentists*, 476 U.S. 447 (1986).
- ⁶⁸⁷. *Department of Transportation v. Association of American Railroads*, 575 U.S. 43 (2015).
- ⁶⁸⁸. *United States v. Apple Inc.*, 791 F.3d 290 (2d Cir. 2015).
- ⁶⁸⁹. *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ⁶⁹⁰. *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁶⁹¹. *West Virginia v. EPA*, 597 U.S. ____ (2022).
- ⁶⁹². *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁶⁹³. *Commodity Exchange Act*, 7 U.S.C. § 1a(9).
- ⁶⁹⁴. *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁶⁹⁵. *NFIB v. Sebelius*, 567 U.S. 519 (2012).
- ⁶⁹⁶. *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁶⁹⁷. *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁶⁹⁸. *Auer v. Robbins*, 519 U.S. 452 (1997).
- ⁶⁹⁹. *Department of Transportation v. Association of American Railroads*, 575 U.S. 43 (2015).
- ⁷⁰⁰. *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁷⁰¹. *Motor Vehicle Mfrs. Ass'n v. State Farm*, 463 U.S. 29 (1983).

- ⁷⁰². *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁷⁰³. *Ashcroft v. Iqbal*, 556 U.S. 662 (2009).
- ⁷⁰⁴. *Commodity Futures Trading Comm’n v. McDonnell*, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).
- ⁷⁰⁵. *United States v. Wise*, 370 U.S. 405 (1962).
- ⁷⁰⁶. *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ⁷⁰⁷. *West Virginia v. EPA*, 597 U.S. ____ (2022).
- ⁷⁰⁸. *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁷⁰⁹. *Burlington Industries, Inc. v. Ellerth*, 524 U.S. 742 (1998).
- ⁷¹⁰. *United States v. Park*, 421 U.S. 658 (1975).
- ⁷¹¹. *Texas Industries, Inc. v. Radcliff Materials, Inc.*, 451 U.S. 630 (1981).
- ⁷¹². *Slack Technologies, LLC v. Pirani*, 598 U.S. 759 (2023).
- ⁷¹³. *Commodity Exchange Act*, 7 U.S.C. § 1a(9).
- ⁷¹⁴. *Securities Act of 1933*, 15 U.S.C. §§ 77a–77aa.
- ⁷¹⁵. *Securities Exchange Act of 1934*, 15 U.S.C. §§ 78a–78qq.
- ⁷¹⁶. *SEC v. Ripple Labs Inc.*, 2023 WL 4507900.
- ⁷¹⁷. *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁷¹⁸. *United States v. Park*, 421 U.S. 658 (1975).
- ⁷¹⁹. *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁷²⁰. *Virginia State Bd. of Pharmacy v. Virginia Citizens Consumer Council*, 425 U.S. 748 (1976).
- ⁷²¹. *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁷²². *West Virginia v. EPA*, 597 U.S. ____ (2022).
- ⁷²³. *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁷²⁴. *SEC v. Capital Gains Research Bureau*, 375 U.S. 180 (1963).
- ⁷²⁵. *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁷²⁶. *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ⁷²⁷. *Packingham v. North Carolina*, 582 U.S. 98 (2017).
- ⁷²⁸. *Auer v. Robbins*, 519 U.S. 452 (1997).
- ⁷²⁹. *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁷³⁰. *Humphrey’s Executor v. United States*, 295 U.S. 602 (1935).
- ⁷³¹. *Twitter, Inc. v. Taamneh*, 598 U.S. ____ (2023).
- ⁷³². *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).
- ⁷³³. *United States v. Wise*, 370 U.S. 405 (1962).
- ⁷³⁴. *Motor Vehicle Mfrs. Ass’n v. State Farm*, 463 U.S. 29 (1983).
- ⁷³⁵. *West Virginia v. EPA*, 597 U.S. ____ (2022).
- ⁷³⁶. *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁷³⁷. *Department of Transportation v. Association of American Railroads*, 575 U.S. 43 (2015).
- ⁷³⁸. *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984).
- ⁷³⁹. *Auer v. Robbins*, 519 U.S. 452 (1997).
- ⁷⁴⁰. *United States v. Park*, 421 U.S. 658 (1975).
- ⁷⁴¹. *Slack Technologies, LLC v. Pirani*, 598 U.S. 759 (2023).
- ⁷⁴². *SEC v. Ripple Labs Inc.*, 2023 WL 4507900.
- ⁷⁴³. *NFIB v. Sebelius*, 567 U.S. 519 (2012).
- ⁷⁴⁴. *United States v. Classic*, 313 U.S. 299 (1941).
- ⁷⁴⁵. *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁷⁴⁶. *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁷⁴⁷. *Auer v. Robbins*, 519 U.S. 452 (1997).
- ⁷⁴⁸. *FTC v. Indiana Federation of Dentists*, 476 U.S. 447 (1986).
- ⁷⁴⁹. *West Virginia v. EPA*, 597 U.S. ____ (2022).
- ⁷⁵⁰. *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).

- ⁷⁵¹. *United States v. Wise*, 370 U.S. 405 (1962).
- ⁷⁵². *Interstate Circuit, Inc. v. United States*, 306 U.S. 208 (1939).
- ⁷⁵³. *Motor Vehicle Mfrs. Ass'n v. State Farm*, 463 U.S. 29 (1983).
- ⁷⁵⁴. *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁷⁵⁵. *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ⁷⁵⁶. *Ashcroft v. Iqbal*, 556 U.S. 662 (2009).
- ⁷⁵⁷. *INT'L Shoe Co. v. Washington*, 326 U.S. 310 (1945).
- ⁷⁵⁸. *Calder v. Jones*, 465 U.S. 783 (1984).
- ⁷⁵⁹. *Burger King Corp. v. Rudzewicz*, 471 U.S. 462 (1985).
- ⁷⁶⁰. *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁷⁶¹. *Packard Motor Car Co. v. NLRB*, 330 U.S. 485 (1947).
- ⁷⁶². *NFIB v. Sebelius*, 567 U.S. 519 (2012).
- ⁷⁶³. *Humphrey's Executor v. United States*, 295 U.S. 602 (1935).

§VI. Harvard Law Lens — Doctrinal Coherence and Constitutional Alignment

[\(Return to TOC\)](#)

Under a Harvard Law doctrinal analysis, decentralized systems cannot evade traditional public-law frameworks by rhetorical claims that “code is law.” Courts assess the *locus of power, the reality of control, and the consequences of harm*—not technological abstractions. The function of this section is to operationalize administrative law, constitutional law, and statutory interpretation as a unified judicial framework for evaluating governance inside decentralized architectures. In doing so, DAC aligns decentralized system analysis with the inherited structure of American constitutional jurisprudence, rather than permitting technological exceptionalism to fracture doctrinal coherence.⁷⁶⁴

This Harvard Law lens rejects the premise that distributed architecture alters constitutional accountability. The Constitution does not recognize software as sovereign. It recognizes *persons, powers, and limitations*. DAC therefore situates decentralized systems within the existing separation-of-powers model by clarifying that where discretion exists, constitutional constraint must apply.⁷⁶⁵

§I. Administrative Law Applied to Digital Systems

§I.A. The Post-Chevron Landscape — Courts Reclaim Interpretive Primacy

The collapse of Chevron deference represents one of the most consequential shifts in administrative law since the New Deal. Where agencies once enjoyed interpretive latitude over ambiguous statutory terms, federal courts now reclaim primary authority to determine statutory meaning. This shift removes the institutional fiction that agencies may expand their own jurisdiction through interpretive creativity.⁷⁶⁶

The judiciary’s return to interpretive primacy is grounded in constitutional separation of powers. Congress writes the law. Courts interpret the law. Agencies execute the law. Where an agency attempts to define “commodity,” “security,” or “money” without clear statutory authorization, courts now impose structural discipline. This shift fundamentally destabilizes the practice by which the CFTC and SEC previously relied on guidance, enforcement discretion, and informal rulemaking to expand digital-asset oversight.⁷⁶⁷

For decentralized systems, the implication is decisive: statutory ambiguity can no longer be resolved administratively. Courts will require textual, structural, and historical coherence. DAC anticipates this post-Chevron environment by grounding its definitional framework in constitutional architecture rather than regulatory preference.⁷⁶⁸

§I.B. The New Textualism — Narrowing of Agency Discretion

Modern textualism—especially as articulated through the jurisprudential lineage associated with Gorsuch and Kavanaugh—treats statutory interpretation as a constitutional act, not a managerial convenience. Under this framework, agencies cannot redefine statutory categories to address technological novelty. They must act within the textual and structural limits imposed by Congress.⁷⁶⁹

These interpretive restraints impose direct consequences:

- The **CFTC** may not expand “commodity” definitions to include mutable, discretionary, or governance-driven systems absent explicit congressional amendment.⁷⁷⁰
- The **SEC** may not treat governance tokens as securities unless each element of *Howey* is met as a matter of law, not policy preference.⁷⁷¹
- Agencies may not define “decentralization” through guidance, because the Constitution reserves interpretive authority for Article III courts.⁷⁷²

DAC’s doctrinal contribution is preemptive: it supplies courts with a definitions-first framework that constrains executive overreach while restoring statutory integrity. By rooting classification in constitutional limits rather than regulatory convenience, DAC harmonizes decentralized system analysis with the revived structure of American administrative law.⁷⁷³

§I.C. Standing, Injury, and Redressability in Decentralized Systems

Article III standing doctrine presupposes a legal world in which harm is traceable to identifiable actors, and relief is capable of binding those actors. Decentralized systems fracture each of these assumptions. DAC reconstructs standing analysis to preserve constitutional justiciability in the face of deliberately diffused power.⁷⁷⁴

Traditional standing doctrine requires a plaintiff to establish:

- (1) **injury in fact**,
- (2) **traceability (causation)**, and
- (3) **redressability**.

Decentralized architectures are designed to dissolve each of these criteria, not by accident, but by structural intent.⁷⁷⁵

1. Injury in Stateless Networks

In decentralized systems, harms arise through nontraditional mechanisms, including:

- protocol incentive design,
- slashing and confiscation mechanisms,

- governance-deployed rule changes,
- oracle manipulation,
- consensus-layer failures, and
- pseudonymous “rug pull” liquidity extractions.⁷⁷⁶

Despite the real economic and legal consequences, plaintiffs encounter systematic barriers to showing “particularized” harm, as courts often mischaracterize these injuries as generalized ecosystem dysfunction rather than individualized legal injury.⁷⁷⁷

DAC rejects this misclassification. Where protocol architecture makes harm probabilistic but financially real, injury-in-fact exists as a matter of constitutional logic. Economic harm need not be traditional to be constitutionally cognizable.⁷⁷⁸

2. Traceability — The Causation Problem

Standing doctrine requires that injury be “fairly traceable” to a defendant’s conduct. Decentralized systems weaponize dispersion:

- authority is distributed,
- intent is anonymized,
- control is collectivized, and
- governance power is obscured.⁷⁷⁹

This dispersion is often misinterpreted as a barrier to causation. DAC reverses that presumption.

DAC Doctrinal Rule:

Where control is **collective**, liability is **collective**.

Where control is **discretionary**, liability attaches to those who exercise it.⁷⁸⁰

Validators who collude, developers who commit discretionary upgrades, oracle operators who inject subjective data, and DAO participants who vote to alter rights are not passive. They are causal actors. The absence of formal titles does not defeat agency under constitutional standing doctrine.⁷⁸¹

3. Redressability — The Statelessness Barrier

Courts cannot provide relief unless an enforceable defendant exists. Stateless systems attempt to defeat this by presenting:

- no corporate entity,

- no executive officers,
- no registered offices, and
- no legally recognized governance body.⁷⁸²

DAC treats this architecture as a structural attempt to evade judicial power.

The DAC solution is to replace self-proclaimed statelessness with *fact-based judicial reconstruction* of control. Courts are directed to examine:

- behavioral incentives,
- upgrade authority,
- repository control,
- economic influence, and
- coordination patterns.⁷⁸³

When these elements are present, redressability is restored. The court is no longer bound by the architecture's self-description but guided by constitutional reality. Where persons can influence, persons can be bound.⁷⁸⁴

DAC therefore restores the enforceability of Article III standing without expanding federal power, simply by refusing to allow technological architecture to nullify constitutional structure.

§I.D. Fundamental Rights Constraints

Decentralized architectures cannot exist outside constitutional gravity. Harvard constitutional doctrine recognizes that private systems acquire *sovereign-like character* when they determine legal rights, affect economic liberty, regulate speech-adjacent behavior, or impose binding governance consequences. Where a private system performs these functions, constitutional constraint attaches as a matter of structural law, not statutory grace.⁷⁸⁵ DAC therefore rejects the premise that “private code” can operate as a constitutional vacuum.⁷⁸⁶

These constraints apply not because decentralized systems are governmental, but because they increasingly perform governmental functions without public accountability.⁷⁸⁷

1. Privacy

Decentralized protocols may not construct architectures that replicate surveillance functions prohibited to the state.

Where networks require:

- pervasive wallet traceability,
- permanent transaction correlation,
- deanonymization by design, or
- forced public key exposure,

they risk constructing Fourth Amendment–evading surveillance regimes.⁷⁸⁸

Private architecture cannot be used to launder what the Constitution forbids government to do directly. Distributed design does not extinguish reasonable expectations of privacy. Where protocols structurally coerce disclosure of intimate economic behavior, constitutional privacy constraints become functionally implicated.⁷⁸⁹

2. Autonomy

Autonomy is not extinguished because consent is expressed through code.

Self-executing architectures that:

- compel irreversible smart-contract execution,
- deny exit without penalty,
- impose nonconsensual slashing, or
- force mechanical participation in governance rules

risk infringing constitutional analogs of:

- compelled association,
- compelled speech, and
- procedural due process.⁷⁹⁰

DAC recognizes that forced algorithmic compliance — when functionally unavoidable — can erode the autonomy guarantees traditionally protected under substantive due process doctrine.⁷⁹¹

3. Equal Protection

Decentralized consensus systems frequently embed *economic stratification* directly into their architecture.

Mechanisms such as:

- staking-weighted governance,
- MEV extraction advantages,
- validator capital thresholds, and
- liquidity-gated access

can produce *structural disparate impacts* favoring wealth, geographic advantage, or institutional scale.⁷⁹²

Where system design burdens classes of users predictably and systemically, constitutional equal-protection principles are triggered as a matter of structural analogy. DAC treats algorithmic wealth stratification as legally cognizable when engineered into protocol mechanics.⁷⁹³

4. Limits on Self-Executing Digital Governance

Federal courts have consistently rejected systems that function as *private governments beyond review*.

Architectures that:

- impose penalties without hearing,
- adjudicate disputes without process,
- freeze assets without appeal, or
- alter rights without procedural notice

exceed the permissible scope of private ordering and collapse into unconstitutional private governance.⁷⁹⁴

DAC formalizes this constitutional boundary:

Self-executing governance cannot exceed the limits imposed on public governance.

When protocols adjudicate rights, enforce penalties, or alter economic entitlements, they must satisfy functional due-process analogs or lose constitutional legitimacy.⁷⁹⁵

Code does not displace constitutional structure. It inherits it.

§I.E. Policymaker Interpretation (Plain-English)

No superscript citations are included by design, as this section is drafted expressly for use by the United States Congress. It is written in plain constitutional language to preserve legislative primacy and ensure direct usability in statutory drafting.

For policymakers, the practical meaning of this section reduces to four clear truths:

First, *courts — not agencies — will ultimately define digital-asset law*. Regulatory guidance is no longer the final authority. Statutory language and constitutional structure will control outcomes.

Second, *decentralized systems make harm difficult to trace unless the law clearly assigns responsibility*. Without a legal framework that links human behavior to legal consequence, injured parties will be left without recourse and bad actors will hide behind architecture.

Third, *digital systems do not escape constitutional limits just because they are technical*. Systems must respect privacy, individual autonomy, and equal protection in the same way that governments must. Code cannot be used to bypass rights that the Constitution protects.

Fourth, *algorithms cannot replace legal process*. Automated enforcement, self-executing penalties, and irreversible governance actions must still align with due process and lawful adjudication.

DAC stabilizes this environment by giving Congress a framework that is coherent with constitutional structure and that courts are likely to uphold, rather than undermine. It equips lawmakers with a durable legal lens that restores clarity where technology created confusion.

§I.F. Core Arguments Introduced in This Section

No superscript citations are included by design, as this section was drafted expressly for use by the United States Congress. The language is structured to be immediately usable in legislative reasoning, statutory construction, and oversight functions without dependence on judicial footnote parsing.

First, the collapse of Chevron deference eliminates the ability of agencies to improvise digital-asset definitions. Congress must now write with precision. DAC supplies that precision by offering constitutional definitions that can be written directly into statute and defended in court.

Second, federal courts will interpret digital assets through textualism and constitutional structure, not regulatory convenience. That means legal categories must be grounded in constitutional logic, not industry custom, agency guidance, or market pressure.

Third, decentralized architectures are structurally designed to obscure injury, causation, and redressability. Without a formal doctrinal framework, victims lack recourse and bad actors evade accountability. DAC closes this gap by restoring legal traceability from human conduct to legal consequence.

Fourth, fundamental constitutional rights apply even when systems are technical. Privacy, autonomy, and equal protection cannot be engineered away by architectural design or algorithmic structure.

Fifth, protocol governance cannot function as a parallel private government. When systems impose penalties, modify rights, or operate without review, they must satisfy constitutional due-process analogs. Without those safeguards, such systems are legally defective by design.

DAC equips Congress with a constitutional logic that courts are structurally aligned to uphold.

§I.G. Arguments and Counter-Arguments

This section intentionally contains no superscript citations. It is drafted for use by the United States Congress to preserve clarity, legislative primacy, and direct applicability in statutory drafting and oversight functions.

Argument 1

“Decentralized systems are private; constitutional limits don’t apply.”

Counter-Argument

When private systems exercise sovereign-like functions, courts treat them not as purely private actors, but as constitutional subjects. Where a system governs rights, enforces rules, and controls economic access, it functions as a public authority rather than a market actor. Constitutional limits follow the function of power, not the label of the actor.

Argument 2

“Stateless systems are beyond the reach of courts.”

Counter-Argument

There is no such thing as stateless legal conduct when human beings are involved. Jurisdiction attaches to people, not code. Wherever participants act, communicate, coordinate, and influence outcomes, courts maintain binding authority. Code does not insulate conduct from jurisdiction.

Argument 3

“Agencies can adapt definitions to new technologies.”

Counter-Argument

Administrative flexibility ends where statutory text begins. Agencies cannot substitute policy judgment for legislative authority. Definitions that affect rights, liabilities, and jurisdiction must be written by Congress and applied by courts, not manufactured by executive interpretation.

Argument 4

“Self-executing code does not violate due process.”

Counter-Argument

When code imposes irreversible penalties, confiscates value, or alters rights without notice, hearing, or review, it mirrors the very forms of private adjudication that constitutional law has long rejected. Automated enforcement is not immune from constitutional limits simply because it is automated.

§I.I. Harvard Law Lens — Doctrinal Coherence and Constitutional Alignment

Decentralized systems may be technologically novel, but they are not constitutionally novel. Under Harvard Law’s doctrinal method, legal coherence is preserved by mapping new architectures onto inherited constitutional structures rather than permitting technological exceptionalism to dissolve legal discipline. DAC functions as a constitutional translation layer that reconciles distributed systems with the United States’ separation-of-powers framework, Article III justiciability, and due-process architecture.⁷⁹⁶

Courts are constitutionally obligated to evaluate *power, discretion, and attribution*—not metaphors, marketing, or software mysticism. A system’s *form* does not defeat constitutional inquiry; its *function* triggers it. DAC therefore harmonizes decentralized networks with public-law doctrine by restoring the traditional judicial lens: who exercises power, how that power operates, and what constitutional limits attach.⁷⁹⁷

§I.A. Doctrinal Coherence as a Constitutional Imperative

Doctrinal coherence is not academic formality; it is constitutional structure. The Supreme Court has repeatedly rejected regulatory regimes that fracture constitutional categories in favor of functional convenience. When Congress creates powers, courts must interpret them in harmony with constitutional boundaries, not as open-ended delegations to modern necessity.⁷⁹⁸

Digital-asset governance threatens this coherence by attempting to occupy multiple legal categories simultaneously: commodity in rhetoric, security in function, currency in effect. DAC resolves this collapse by re-anchoring classification to constitutional compatibility rather than technological aspiration.⁷⁹⁹

§I.B. Structural Alignment with Separation of Powers

Harvard Law’s structural constitutional method requires that:

- **Congress** defines legal categories,
- **Courts** interpret legal meaning, and

- **Agencies** execute within confined discretion.

Decentralized systems have disrupted this balance by pressuring agencies to invent new interpretive frameworks to accommodate statutory silence. In the post-Chevron landscape, such improvisation is no longer constitutionally tolerable.⁸⁰⁰

DAC aligns with this separation by providing courts with definitional discipline that prevents agencies from expanding jurisdiction through policy reinterpretation. It restores the judiciary's role as the constitutional arbiter of category, power, and liability.⁸⁰¹

§I.C. Constitutional Architecture as the Controlling Lens

Harvard's doctrinal method treats constitutional architecture—not economic expediency—as the controlling lens for legal development. When technologies evolve, the Constitution does not. Instead, legal doctrine translates new reality back into stable constitutional form.⁸⁰²

DAC performs this translation by:

- converting decentralization claims into *evidentiary standards*,
- converting algorithmic governance into *delegation analysis*, and
- converting “stateless” designs into *jurisdictional fact patterns*.

This process preserves constitutional supremacy without expanding federal power.⁸⁰³

§I.D. Alignment with Due-Process and Libertarian Structural Guarantees

DAC also harmonizes decentralized governance with the Due Process Clause by insisting that:

- rights cannot be altered without notice,
- property cannot be devalued without review, and
- governance cannot be exercised without accountability.

Self-executing code does not defeat these requirements; it intensifies them. When code performs adjudication, code must be treated as power. Where power exists, constitutional constraint follows.⁸⁰⁴

§I.E. The Harvard Lens Applied: Why DAC Survives Constitutional Review

Through a Harvard Law doctrinal lens, DAC survives constitutional scrutiny because it does not ask courts to invent new powers. It asks courts to *apply old constraints to new forms*. DAC:

- reinforces textualism,
- supports separation of powers,

- strengthens non-delegation doctrine,
- restores Article III standing coherence, and
- preserves due-process discipline.⁸⁰⁵

In short, DAC does not expand the Constitution. *It returns digital governance to it.*⁸⁰⁶

§VI. Glossary of Terms — Harvard Law Lens: Doctrinal Coherence and Constitutional Alignment

(Return to TOC)

The Glossary of Terms for §VI serves not as a conventional definitional appendix, but as an integrated judicial-operational framework designed to stabilize constitutional analysis at the intersection of emerging digital systems and entrenched public-law doctrine. Where prior scholarship has treated decentralized architectures as technological anomalies, this Glossary re-centers analysis within the traditional architecture of constitutional law by converting technical ambiguity into legally cognizable structures. The terms codified in this section are therefore not descriptive conveniences; they are doctrinal instruments structured to eliminate interpretive drift across federal courts, agency review, and academic legal analysis.

This Glossary is structured in direct architectural harmony with Table 26 (Blockchain Terminology → Constitutional Anchoring Matrix), which establishes the transformation of industry-native technical language into constitutionally legible constructs, and Table 27 (Cross-Reference Matrix: Constitutional Glossary ↔ Anchored Decentralization Test (ADT)), which ensures that every term within this section corresponds to a stable, repeatable judicial test. Together, these tables operate as a semantic stabilization layer, preventing ambiguity between statutory language, constitutional doctrine, and technological function.

The analytical purpose of this Glossary is further operationalized through its integration with Table 28 (Judicial Application Matrix — ADT Structural Failure Analysis) and Table 28.1 (Judicial Application Matrix — ADT Legal Consequence Mapping), which convert definitional clarity into testable judicial outcomes. These matrices ensure that each term defined herein produces a legally actionable classification when applied to real-world systems, eliminating discretion from interpretation and replacing it with structured constitutional logic.

To preserve fidelity to Supreme Court jurisprudence and to maintain institutional rigor, this Glossary is anchored to Table 28.2 (Case-Law Anchoring by Row — Judicial Precedent Mapping), which maps each concept directly to controlling constitutional and administrative precedents, and Table 28.3 (Conflict-of-Doctrine Map — CEA vs. Howey vs. Non-Delegation), which exposes the structural collisions that arise when decentralized architectures attempt to occupy incompatible legal classifications simultaneously. This ensures that every term within this section functions not only as a lexical definition, but as a litigation-ready doctrinal artifact.

Collectively, this Glossary functions as the doctrinal backbone of the Harvard Law Lens applied throughout §VI. It establishes a closed semantic system: one in which constitutional structure, statutory interpretation, and technological architecture are fused into a single, enforceable legal framework. The result is not merely definitional clarity, but constitutional permanence — a framework capable of enduring institutional scrutiny, judicial challenges, and scholarly review without drift, dilution, or reinterpretation.

Table 26. Blockchain Terminology → Constitutional Anchoring Matrix

Blockchain Term	Common Industry Meaning	DAC Constitutional Translation	Structural Power Characterization	Primary Legal Trigger
Validator	Node that orders and confirms transactions	De facto executive actor exercising discretionary authority	Executive-function surrogate	Managerial control presumption; Howey “efforts of others” activation
Miner	Proof-of-work computation participant	Economic governor influencing transaction inclusion and fee priority	Mixed executive–economic authority	Commodity disqualification where discretion exists
Oracle	External data input mechanism	Delegated fact-finding authority without constitutional accountability	Delegated quasi-judicial power	Non-delegation doctrine trigger; due process instability
DAO (Decentralized Autonomous Organization)	Token-based governance collective	Unincorporated legislative-like governance body	Legislative-function analog	Securities classification risk; administrative-law attribution
Governance Token	Token conferring voting rights	Delegated political-economic power	Shareholder-like managerial equity	Howey prongs 2–4 trigger; Forman profit-or-control threshold
Multisig Wallet	Multi-party authorization mechanism	Joint executive consent body	Implied agency / joint enterprise	Concerted action doctrine; joint liability vector
Fork (Hard/Soft)	Protocol rule alteration	Constitutional mutation mechanism	Ultra vires governance actuator	Commodity disqualification via mutability doctrine
Foundation	Non-profit steward entity	Shadow-state governance actor	Extra-constitutional power center	Jurisdictional anchor; agency attribution doctrine

Upgradable Smart Contract	Mutable on-chain logic	Discretionary delegation engine	Delegated legislative capacity	Non-delegation doctrine; due process failure risk
MEV (Maximal Extractable Value)	Privileged transaction reordering	Embedded economic stratification lever	Unequal protection mechanism	Equal protection and market-manipulation exposure
Treasury (Protocol-Owned)	On-chain pooled reserves	Shadow fiscal authority	Quasi-sovereign budgetary power	Securities presumption; unregistered collective investment signal
Whitepaper	Project description document	Quasi-promissory inducement instrument	Pre-contractual reliance artifact	Howey expectation-of-profit evidence
Roadmap	Future development plan	Forward-looking managerial representation	Executory governance projection	Investment contract indicia
Core Developers	Primary software authors	Latent sovereign rule authors	Soft-power constitutional displacement	Managerial shadow presumption
Repository Maintainers	GitHub or codebase controllers	Custodians of execution logic	Constructive possession of executive authority	Constructive control doctrine trigger
Staking	Token-locking for rewards	Performance-based economic delegation	Profit-expectation generator	Securities characterization vector
Treasury Grants	Ecosystem funding mechanism	Delegated economic planning power	Shadow fiscal-policy execution	Howey/managerial effort activation
Node Operator	Infrastructure host	Operational sovereign agent	Territorial jurisdiction proxy	Jurisdictional attachment under conduct-based nexus
Token Burning	Supply reduction mechanism	Discretionary monetary manipulation	Monetary-sovereign function	Article I monetary authority implication
On-Chain Voting	Token-weighted governance	Algorithmic legislative substitute	Synthetic legislative authority	Non-delegation and due-process stressor

Airdrop	Free token distribution	Behavioral-inducement mechanism	Market-conditioning stimulus	Securities solicitation signal
Liquidity Mining	Reward-based participation	Economic policy lever	Protocol-level fiscal engineering	Investment-contract formation evidence

Algorithmic Delegation

The assignment of legal or governance functions to self-executing code. In DAC analysis, algorithmic delegation is treated as a form of discretionary state-like power that must remain bounded by constitutional due-process and non-delegation principles.

Constitutional Alignment

The principle that all emerging legal architectures must map cleanly onto the separation of powers, fundamental rights, and judicial review traditions of the U.S. Constitution. Within DAC, this term ensures decentralized systems are evaluated through constitutional structure rather than technological abstraction.

Constitutional Architecture

The stable framework of rights, procedures, and structural constraints created by the U.S. Constitution. DAC treats this architecture as immutable, requiring all technological systems to conform rather than modify legal meaning.

Constitutional Supremacy

The doctrine that the Constitution remains the highest source of legal authority regardless of technological change. DAC rests on constitutional supremacy to prevent emergent code-based governance from replacing lawful judicial and legislative processes.

Constitutional Translation Layer

DAC's descriptive term for its core function: converting decentralized and algorithmic realities into categories that fit within constitutional law, administrative doctrine, and statutory interpretation without expanding federal power.

Doctrinal Coherence

A constitutional requirement that legal classifications, judicial tests, and regulatory authorities remain internally consistent across statutory and constitutional frameworks. In DAC, doctrinal coherence requires that digital systems be interpreted through existing public-law doctrines rather than treated as exceptional or autonomous legal categories.

Due Process Analog

A structural requirement that any system exercising quasi-governmental power must provide procedural fairness, notice, reviewability, and the opportunity to be heard. DAC applies due process analogs to protocol governance that performs adjudicative or punitive functions.

Functional Jurisprudence

A judicial mode of analysis that focuses on how power is actually exercised rather than how it is described. In DAC, functional jurisprudence is used to reject performative claims of decentralization when real-world managerial power exists.

Jurisdictional Attachment

The principle that legal jurisdiction follows human conduct rather than technological architecture. DAC uses this term to defeat claims that “stateless” code environments exist beyond judicial reach.

Judicial Primacy

The restored constitutional role of Article III courts as the final authority over statutory and constitutional meaning. In DAC, judicial primacy rejects regulatory self-expansion and assigns definitional authority over “commodity,” “security,” and “currency” to courts.

Non-Delegation Doctrine

The constitutional principle that Congress may not transfer its lawmaking authority to agencies without clear, intelligible standards. In DAC, non-delegation serves as a limiting force against agencies attempting to redefine the nature of digital assets through guidance rather than statute.

Post-Chevron Landscape

The judicial environment following the collapse of Chevron deference, characterized by restored judicial primacy in statutory interpretation and reduced agency discretion. In DAC analysis, this term signifies that courts—not agencies—control the definition of commodities, securities, and monetary instruments.

Public-Function Doctrine

A constitutional doctrine recognizing that private actors exercising traditionally governmental powers may be treated as state actors. DAC invokes this doctrine when decentralized systems replicate effects of sovereign adjudication, monetary control, or regulatory enforcement.

Separation of Powers

The constitutional architecture dividing authority among the legislative, executive, and judicial branches. DAC uses this concept to argue that decentralized systems cannot realign or bypass constitutional allocations of interpretive and enforcement power.

State-Action Analogy

An interpretive framework under which nominally private infrastructure becomes subject to constitutional constraints because its function mirrors state power. In DAC, decentralized governance systems are analyzed under this standard when they exert systemic control over rights or property.

Structural Litigation Viability

A term used in DAC to describe whether a legal framework allows courts to properly identify defendants, establish justiciability, and provide remedies. A system lacking structural litigation viability is constitutionally suspect under DAC.

Textualism (Structural Textualism)

A method of statutory interpretation emphasizing plain statutory meaning, constitutional structure, and historical legal boundaries. DAC relies on structural textualism to prevent agencies from expanding jurisdiction based on technological evolution rather than legislative authorization.

Table 27. Cross-Reference Matrix: Constitutional Glossary ↔ Anchored Decentralization Test (ADT)

Glossary Term (Harvard Law Lens)	Corresponding ADT Pillar	ADT Criterion Activated	Legal Function in DAC
Doctrinal Coherence	ADT-I: Structural Consistency	No statutory contradiction	Prevents category collapse (commodity/security/currency)
Constitutional Alignment	ADT-III: Jurisdictional Anchor	Federal power remains bounded	Ensures separation of powers integrity
Post-Chevron Landscape	ADT-II: Interpretive Authority	Courts control classification	Eliminates agency self-expansion
Textualism	ADT-II: Statutory Fidelity	Plain-text compliance	Blocks regulatory redefinition by guidance
Non-Delegation Doctrine	ADT-I: Governance Absence	No delegated algorithmic lawmaking	Prevents protocol-level sovereign mimicry
Separation of Powers	ADT-III: Institutional Boundaries	No cross-branch functional encroachment	Protects Congressional monetary authority
Functional Jurisprudence	ADT-IV: Behavioral Reality	Substance over form	Treats performative decentralization as legally irrelevant
Constitutional Architecture	ADT-I: Structural Permanence	Immutable legal framework	Rejects “code-as-constitution” narratives
Judicial Primacy	ADT-II: Interpretive Exclusivity	Courts as final arbiters	Forecloses agency definitional creativity
Due Process Analog	ADT-V: Procedural Neutrality	No unreviewable penalty engines	Bars private adjudication systems

Public-Function Doctrine	ADT-III: Sovereign Simulation Block	No private assumption of public power	Triggers state-actor level scrutiny
State-Action Analogy	ADT-III: Rights Impact Test	Rights-affecting protocols flagged	Converts private governance into constitutional subject
Jurisdictional Attachment	ADT-III: Human Anchor Test	Jurisdiction follows persons	Defeats “stateless code” defenses
Constitutional Supremacy	ADT-I: Legal Hierarchy	Federal constitutional dominance	Blocks protocol supremacy arguments
Structural Litigation Viability	ADT-VI: Justiciability Enforcement	Identifiable defendant requirement	Ensures courts retain remedial power
Algorithmic Delegation	ADT-IV: Discretion Prohibition	No autonomous discretionary engines	Treats governance-code as managerial power
Constitutional Translation Layer	ADT-II + ADT-III Integration	Cross-doctrinal coherence	Allows courts to operationalize DAC standards

Doctrinal Purpose Statement

This matrix operationalizes the Anchored Decentralization Test (ADT) by mapping Harvard Law constitutional constructs directly onto DAC’s structural enforcement criteria, allowing jurists, clerks, and scholars to evaluate decentralized systems through orthodox constitutional and administrative geometry without expanding federal power or inventing new legal categories.

Table 28. Judicial Application Matrix (ADT Structural Failure Analysis)

System Type	Managerial Control Present	Discretionary Authority	Governance Layer Exists	Jurisdictional Anchor Identifiable	ADT Outcome
Bitcoin (BTC)	✗ No	✗ No	✗ No	✓ Yes	Pass
Ethereum (ETH – post-Merge)	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
DAO-Governed Token (Generic)	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
Foundation-Backed Protocol	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
Proof-of-Stake L1 (Generic)	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
Forkable Open-Source Protocol	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
Purely Immutable Protocol (Theoretical)	✗ No	✗ No	✗ No	✓ Yes	Pass

NFT Collections (Typical)	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
Algorithmic Stablecoin	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
Fiat-Backed Stablecoin	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
Layer-2 Rollup Systems	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
Oracle-Dependent Systems	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
Multisig-Governed Protocol	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Fail
ACP-Based Infrastructure Object	✗ No	✗ No	✗ No	✓ Yes	Pass
ABDC Spine (ACP-Backed Currency Rail)	✗ No	✗ No	✗ No	✓ Yes	Pass

Table 28.1. Judicial Application Matrix (ADT Legal Consequence Mapping)

System Type	Judicial Classification	Constitutional Status
Bitcoin (BTC)	Commodity	Constitutionally permissible
Ethereum (ETH – post-Merge)	Security	Constitutionally governed
DAO-Governed Token (Generic)	Security	Non-delegation conflict
Foundation-Backed Protocol	Security	Managerial shadow present
Proof-of-Stake L1 (Generic)	Security	Due-process risk
Forkable Open-Source Protocol	Security	Mutability defeats commodity status
Purely Immutable Protocol (Theoretical)	Commodity	Constitutionally permissible (theoretical class)
NFT Collections (Typical)	Security / Consumer Asset	Securities-law exposure
Algorithmic Stablecoin	Security	Monetary power conflict
Fiat-Backed Stablecoin	Security / Banking Instrument	Article I monetary risk
Layer-2 Rollup Systems	Security	Delegation instability
Oracle-Dependent Systems	Security	Quasi-judicial delegation conflict
Multisig-Governed Protocol	Security	Joint enterprise established
ACP-Based Infrastructure Object	Commodity-Equivalent Infrastructure	Constitutionally aligned
ABDC Spine (ACP-Backed Currency Rail)	Sovereign Monetary Infrastructure	Article I compatible (design class)

Table 28.2. Case-Law Anchoring by Row (Judicial Precedent Mapping)

System Type	Primary Constitutional / Statutory Anchors	Doctrinal Basis for Classification
Bitcoin (BTC)	<i>Commodity Exchange Act</i> (7 U.S.C. §1a); <i>Howey</i> (328 U.S. 293) (negative inference)	Absence of managerial effort fails <i>Howey</i> prongs; qualifies as non-discretionary commodity object
Ethereum (ETH – post-Merge)	<i>SEC v. Howey</i> ; <i>Forman</i> (421 U.S. 837); <i>Reves</i> (494 U.S. 56)	Governance and discretionary upgrades constitute managerial effort and expectation of profit
DAO-Governed Tokens	<i>Howey</i> ; <i>United Housing v. Forman</i> ; <i>SEC v. Telegram</i> (448 F. Supp. 3d 352)	Token-holder governance constitutes collective managerial enterprise
Foundation-Backed Protocols	<i>Howey</i> ; <i>SEC v. Kik</i> (492 F. Supp. 3d 169)	Organizational management through foundation defeats decentralization claims
Proof-of-Stake L1s	<i>Reves</i> ; <i>West Virginia v. EPA</i> (597 U.S. 697)	Delegated discretionary authority and economic expectation align with securities classification
Forkable Open-Source Protocols	<i>Gundy v. United States</i> (588 U.S. ____); <i>Schechter Poultry</i> (295 U.S. 495)	Mutability demonstrates ongoing governance authority and non-delegation instability
Purely Immutable Protocol (Theoretical)	<i>CEA</i> §1a; negative inference from <i>Howey</i> and <i>Reves</i>	Absence of discretion renders theoretical constitutional commodity class
NFT Collections	<i>Howey</i> ; <i>Slack Tech. v. Pirani</i> (598 U.S. 759)	Promoter-driven appreciation narratives constitute investment contract behavior
Algorithmic Stablecoins	<i>Craig v. Missouri</i> (29 U.S. 410); Art. I §10	Monetary-like issuance risks unconstitutional usurpation of currency authority
Fiat-Backed Stablecoins	Art. I §8; <i>Veazie Bank v. Fenno</i> (75 U.S. 533)	Private issuance of money-equivalent instruments triggers federal monetary authority conflicts
Layer-2 Rollups	<i>Chevron</i> rollback principles; <i>West Virginia v. EPA</i>	Delegated operational authority lacks clear legislative authorization
Oracle-Dependent Systems	<i>Goldberg v. Kelly</i> (397 U.S. 254); Due Process Clause	Discretionary data injection creates quasi-adjudicative due-process risk
Multisig-Governed Protocols	<i>Howey</i> ; <i>Reves</i> ; joint-enterprise doctrine	Coordinated control establishes collective managerial enterprise

ACP-Based Infrastructure Objects	CEA §1a; U.C.C. Art. 7 (documents of title)	Non-discretionary infrastructure object aligned with commodity and warehouse-receipt logic
ABDC Spine (ACP-Backed Rail)	Art. I §8 (Monetary Powers); <i>Veazie Bank v. Fenno</i>	Sovereign-compatible infrastructure when legislatively authorized and non-discretionary

Table 28.3. Conflict-of-Doctrine Map (CEA vs. Howey vs. Non-Delegation)

Legal Framework	Core Legal Purpose	Trigger Condition	Conflict Point in Digital Systems	DAC Resolution Logic
Commodity Exchange Act (CEA)	Regulate inert economic goods traded in markets	Existence of a non-discretionary commodity object	Digital systems claim commodity status while remaining mutable, upgradeable, governed	DAC requires immutability + non-discretion as prerequisite for CEA applicability
Howey Test (Securities Law)	Regulate investment contracts involving expectation of profit from managerial effort	Presence of managerial effort and reliance by others	“Decentralized” projects retain founders, governance councils, foundations, token-voting	DAC treats any governance, upgrade, or promotion as dispositive managerial effort
Reves (Family Resemblance Test)	Determine whether instruments function as notes/securities	Functional resemblance to traditional securities	Tokens structured to evade note-like features while still distributing profit and control	DAC collapses function over form: economic behavior > cosmetic design
Non-Delegation Doctrine	Prevents Congress from delegating legislative power to private entities	Private actors exercising quasi-legislative authority	Protocols perform rulemaking, slashing, emergency halts, forks	DAC classifies protocol governance as per se unconstitutional delegation
Chevron (Pre-collapse framework)	Allowed agencies interpretive deference	Statutory ambiguity	Agencies stretched “commodity” and “security” definitions through guidance	Post-Chevron DAC restores judicial primacy over interpretive boundaries

Due Process Doctrine	Require predictable, intelligible rules before deprivation	Vagueness, discretion, lack of notice	Algorithms freeze funds, slash stake, fork protocols without procedural protections	DAC requires deterministic predictability as constitutional prerequisite
Article I §8 (Monetary Powers)	Vest monetary authority in Congress	Creation of money-like instruments	Stablecoins mimic sovereign currency while evading constitutional monetary structure	DAC treats private money-like governance as constitutional encroachment

Doctrinal Closure Logic (for Court Use)

If a system satisfies:

Condition	Legal Classification
Non-discretionary + immutable	Commodity (CEA-compatible)
Discretionary + managerial	Security (Howey-captured)
Algorithmic governance	Non-delegation violation
Unpredictable penalties	Due process violation

Judicial Utility of this Table

This permits SCOTUS and lower federal courts to:

- Identify **doctrinal collisions instantly**
- Determine **which constitutional principle controls**
- Apply DAC without new legislation

Doctrinal Summary — Harvard Law Lens: Doctrinal Coherence and Constitutional Alignment

This Glossary completes the structural architecture of §VI by converting technological ambiguity into a closed system of constitutional meaning. Where earlier chapters of DAC establish legal enforceability for Congress and operational mechanics for courts, this section performs a distinct institutional function: it creates a stable doctrinal language layer capable of surviving academic transmission, judicial recursion, and generational reinterpretation without loss of coherence. In so doing, it transcends the role of a reference appendix and becomes a jurisprudential substrate upon which future legal scholarship may build.

The Glossary's doctrinal role is therefore dual-tracked by design. First, it functions as a legislative harmonization tool — ensuring that Congress, committees, and congressional counsel operate from constitutionally synchronized terminology rather than industry-driven language. Second, and more critically, it establishes a pedagogical scaffold through which law schools, legal theorists, and constitutional scholars may anchor emerging fields of decentralized systems within existing public-law doctrine rather than treating them as sui generis anomalies.

By binding Table 26 (Blockchain Terminology → Constitutional Anchoring Matrix) and Table 27 (Constitutional Glossary ↔ Anchored Decentralization Test) into unified definitional logic, this Glossary creates a closed interpretive circuit: a system in which no term may drift from constitutional origin without immediately triggering doctrinal inconsistency. Tables 28, 28.1, 28.2, and 28.3 operationalize this stability, transforming abstract theory into justiciable structure and allowing legal actors to apply constitutional logic to technological systems without interpretive improvisation.

Most significantly, this section establishes the academic survivability doctrine of DAC. Rather than serving as a transient regulatory memorandum or reactive legal framework, DAC — through this Glossary — becomes a foundational field architecture. It provides future scholars with a repeatable constitutional grammar for evaluating decentralized governance, digital assets, and post-sovereign economic infrastructure without requiring departure from classical constitutional structure. In Harvard doctrinal terms, this accomplishes a rare achievement: *it renders a novel system legally intelligible without weakening the Constitution.*

Accordingly, this Glossary does not close §VI — it institutionalizes it. It ensures that DAC functions not merely as a tool of resolution for present conflicts, but as a doctrine capable of scholarly inheritance, judicial refinement, and statutory extension for decades to come. It is intended to be cited, challenged, taught, and improved — but never destabilized — because its architecture is not technological, but constitutional.

References

- ⁷⁶⁴ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).
- ⁷⁶⁵ *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁷⁶⁶ *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244 (2024).
- ⁷⁶⁷ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁷⁶⁸ *United States v. Mead Corp.*, 533 U.S. 218 (2001).
- ⁷⁶⁹ *Bostock v. Clayton County*, 590 U.S. 644 (2020).
- ⁷⁷⁰ *Commodity Exchange Act*, 7 U.S.C. § 1a(9).
- ⁷⁷¹ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁷⁷² *City of Arlington v. FCC*, 569 U.S. 290 (2013) (Roberts, C.J., dissenting).
- ⁷⁷³ *Gutierrez-Brizuela v. Lynch*, 834 F.3d 1142 (10th Cir. 2016) (Gorsuch, J., concurring).
- ⁷⁷⁴ *Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992).
- ⁷⁷⁵ *Allen v. Wright*, 468 U.S. 737 (1984).
- ⁷⁷⁶ *TransUnion LLC v. Ramirez*, 594 U.S. 413 (2021).
- ⁷⁷⁷ *Spokeo, Inc. v. Robins*, 578 U.S. 330 (2016).
- ⁷⁷⁸ *Havens Realty Corp. v. Coleman*, 455 U.S. 363 (1982).
- ⁷⁷⁹ *Clapper v. Amnesty Int’l USA*, 568 U.S. 398 (2013).
- ⁷⁸⁰ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁷⁸¹ *FTC v. Wyndham Worldwide Corp.*, 799 F.3d 236 (3d Cir. 2015).
- ⁷⁸² *Daimler AG v. Bauman*, 571 U.S. 117 (2014).
- ⁷⁸³ *Walden v. Fiore*, 571 U.S. 277 (2014).
- ⁷⁸⁴ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).
- ⁷⁸⁵ *Shelley v. Kraemer*, 334 U.S. 1 (1948).
- ⁷⁸⁶ *Marsh v. Alabama*, 326 U.S. 501 (1946).
- ⁷⁸⁷ *Burton v. Wilmington Parking Auth.*, 365 U.S. 715 (1961).
- ⁷⁸⁸ *Katz v. United States*, 389 U.S. 347 (1967).
- ⁷⁸⁹ *Carpenter v. United States*, 138 S. Ct. 2206 (2018).
- ⁷⁹⁰ *West Virginia State Bd. of Educ. v. Barnette*, 319 U.S. 624 (1943).
- ⁷⁹¹ *Planned Parenthood v. Casey*, 505 U.S. 833 (1992).
- ⁷⁹² *Washington v. Davis*, 426 U.S. 229 (1976).
- ⁷⁹³ *Village of Arlington Heights v. Metro. Hous. Dev. Corp.*, 429 U.S. 252 (1977).
- ⁷⁹⁴ *Londoner v. City of Denver*, 210 U.S. 373 (1908).
- ⁷⁹⁵ *Goldberg v. Kelly*, 397 U.S. 254 (1970).
- ⁷⁹⁶ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).
- ⁷⁹⁷ *INS v. Chadha*, 462 U.S. 919 (1983).
- ⁷⁹⁸ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁷⁹⁹ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁸⁰⁰ *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244 (2024).
- ⁸⁰¹ *City of Arlington v. FCC*, 569 U.S. 290 (2013) (Roberts, C.J., dissenting).
- ⁸⁰² *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).
- ⁸⁰³ *Gutierrez-Brizuela v. Lynch*, 834 F.3d 1142 (10th Cir. 2016) (Gorsuch, J., concurring).
- ⁸⁰⁴ *Goldberg v. Kelly*, 397 U.S. 254 (1970).
- ⁸⁰⁵ *Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).
- ⁸⁰⁶ *Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992).

§VII. CFTC Lens — Jurisdictional Expansion and Enforcement Logic

[\(Return to TOC\)](#)

The Commodity Futures Trading Commission (CFTC) occupies a jurisdictional posture historically limited by the textual boundaries of the Commodity Exchange Act (CEA). Congress vested the Commission with authority over *commodities, futures, swaps, and antifraud enforcement*, all anchored in the regulation of tangible economic instruments and derivative contracts arising in interstate commerce.⁸⁰⁷ Courts have consistently recognized that this jurisdiction is not plenary, nor technological in nature, but statutorily bounded by constitutional constraints on federal power.⁸⁰⁸

The advent of digital-asset markets has imposed sustained pressure on these boundaries, generating what DAC characterizes as *jurisdictional inflation*: informal expansion of agency authority unsupported by statutory amendment and increasingly untenable under post-Chevron judicial doctrine.⁸⁰⁹ Once judicial deference diminished, administrative elasticity in defining “commodity” has likewise deteriorated, requiring reaffirmation of constitutional and textual limits.⁸¹⁰ DAC therefore analyzes the CFTC not as an adversary institution, but as a constitutional instrument whose enforcement authority must be *realigned with statutory origin*.

§I. Commodity Supervision Without Commodities

The CFTC has increasingly asserted jurisdiction on the premise that “digital assets are commodities.”⁸¹¹ However, under Harvard textualism and longstanding commodity jurisprudence, a qualifying commodity must be:

- a *non-managerial, fungible object*,
- whose economic value does not depend upon *ongoing managerial conduct*, and
- whose price formation is governed by *market supply and demand rather than protocol governance*.⁸¹²

Most digital systems fail these statutory predicates. DAC identifies this failure not as interpretive disagreement, but as *structural disqualification*.

Where developers retain *upgrade authority*, the asset is rendered mutable and thus cannot satisfy the inert-object requirement of commodity status.⁸¹³

Where token-holders participate in *governance mechanisms capable of altering economic rules*, the asset becomes managerial.⁸¹⁴

Where a protocol requires *discretionary operational intervention*, the asset ceases to function as a commodity object and instead operates as a managed enterprise.⁸¹⁵

DAC therefore concludes:

- If *developers retain upgrade authority*, the object is not a commodity.⁸¹⁶
- If *governance token holders alter protocol economics*, the object is not a commodity.⁸¹⁷
- If *discretionary management is operationally necessary*, the object is not a commodity.⁸¹⁸

Accordingly, DAC constrains CFTC jurisdiction not through hostility, but through constitutional fidelity: the agency may regulate only those digital objects which meet the statutory definition of a commodity as Congress enacted, not those which merely claim the label through industry convention.

§II. Fraud, Manipulation, and the “Managerial Shadow”

Even where digital assets fail to qualify as commodities, the CFTC retains statutory authority to pursue *fraud and manipulation* under §6(c)(1) of the Commodity Exchange Act (“CEA”).⁸¹⁹ This authority, however, has been strained by the emergence of decentralized market structures that exhibit manipulation mechanisms fundamentally distinct from traditional commodities markets. Courts evaluating modern digital markets increasingly confront conduct that does not resemble price spoofing or false reporting, but rather *structural manipulation embedded within protocol design itself*.⁸²⁰

Decentralized markets demonstrate recurring patterns of conduct that DAC classifies as *managerial shadows*:

- **Validator collusion**, whereby transaction ordering is strategically aligned to extract economic value.⁸²¹
- **Oracle tampering**, in which external data feeds are selectively manipulated to distort internal protocol outcomes.⁸²²
- **Cross-chain arbitrage engineering**, which creates artificial pricing dislocations across bridges and wrapped instruments.⁸²³
- **Consensus bribery**, where actors are economically induced to alter block or proposal outcomes.⁸²⁴
- **Covert governance influence**, in which off-chain coordination silently directs on-chain voting results.⁸²⁵
- **Developer interventions**, where emergency patches and discretionary upgrades alter economic outcomes without transparent process.⁸²⁶

DAC treats these behaviors not merely as *misconduct*, but as *structural evidence that the system itself is governed rather than inert*. Where such managerial shadows exist, the underlying asset

cannot meet the Commodity Exchange Act's requirement of an unmanaged, non-discretionary object. This doctrinal conclusion does not weaken enforcement; rather, it *redirects it to the appropriate constitutional lane*.⁸²⁷

Under DAC, the presence of managerial shadow conduct performs two legally dispositive functions:

1. It disqualifies the asset from *commodity classification*, removing it from the CFTC's commodity jurisdictional basis.⁸²⁸
2. It triggers *alternative legal frameworks*, including securities law, fraud statutes, and constitutional due process analysis, without forcing CFTC jurisdiction beyond its statutory design.⁸²⁹

DAC therefore rejects jurisdictional expansion as an enforcement tool. Instead, it restores doctrinal coherence by holding that *structural management negates commodity status*, and that fraud and manipulation in governed systems must be addressed through *constitutionally aligned authorities, not administrative improvisation*.⁸³⁰

This preserves the CFTC's legitimacy, rather than diluting it, by confining enforcement to its original constitutional and statutory mission.

§III. Market Integrity in the Absence of a Market

CFTC enforcement authority is structurally premised on the existence of a recognizable "market" as that term is understood in federal commodities law.⁸³¹ Classic market integrity doctrine presumes the presence of centralized price discovery mechanisms, identifiable intermediaries, and standardized transactional architecture.⁸³² These assumptions are not peripheral; they form the doctrinal foundation upon which the Commodity Exchange Act was constructed.⁸³³

Decentralized digital networks systematically lack the essential structural features that define a legally cognizable market. Such networks operate without unified marketplaces, exhibit fragmented or non-existent order books, frequently lack identifiable counterparties, and are not anchored to any geographically established exchange facility.⁸³⁴ In the absence of these predicates, traditional concepts of market manipulation, spoofing, wash trading, and price distortion lose their analytical coherence.⁸³⁵ The legal architecture of market integrity collapses where no coherent market structure exists to be protected.⁸³⁶

Under the Doctrine of Anchored Decentralization (DAC), these networks are not treated as commodity markets, but rather as managed systems governed by discretionary protocol authorities.⁸³⁷ By reclassifying such systems according to their operational reality rather than their marketing representations, DAC restores jurisdictional clarity and prevents the misapplication of CFTC authority to structures that are, in substance, organizational governance systems rather than markets.⁸³⁸ This doctrinal correction supplies a remedial framework that preserves statutory fidelity while preventing regulatory distortion.⁸³⁹

§IV. Decentralization Claims vs. Enforcement Necessity

Digital asset promoters routinely advance a structural immunity theory premised on a single assertion: “*the system is decentralized, therefore it is not subject to regulation.*”⁸⁴⁰ This claim reflects neither statutory reality nor constitutional doctrine. Decentralization, as a descriptive technical label, does not function as a jurisdiction-stripping device under federal law.⁸⁴¹ Regulatory authority is not extinguished by architectural branding, but by the absence of legally cognizable control, management, or behavioral authority.⁸⁴²

The Doctrine of Anchored Decentralization (DAC) rejects decentralization as a self-proving condition. Instead, it applies a forensic, evidence-based framework designed to distinguish authentic structural dispersion from performative claims.⁸⁴³ Where managerial discretion governs protocol upgrades, token economics, validator admissions, or liquidity architecture, the legal system treats such networks as managed enterprises regardless of their technical distribution.⁸⁴⁴ Courts are not bound by self-description; *they are bound by substance.*⁸⁴⁵

DAC operationalizes this distinction through a tripartite decentralization test: technical dispersion, behavioral independence, and jurisdictional disaggregation.⁸⁴⁶ The technical inquiry measures whether control over code and infrastructure is truly non-custodial and non-coercive.⁸⁴⁷ The behavioral inquiry evaluates whether any identifiable actors retain the power to influence market outcomes through discretionary conduct.⁸⁴⁸ The jurisdictional inquiry examines whether enforcement power, governance authority, or system stability ultimately depends on a human or institutional anchor.⁸⁴⁹

Where these tests reveal retained managerial agency, decentralization rhetoric collapses as a matter of law.⁸⁵⁰ In such circumstances, enforcement is not only permissible; it is constitutionally required to preserve statutory coherence and prevent the creation of regulatory voids through semantic evasion.⁸⁵¹ DAC therefore restores legal fidelity by treating decentralization not as a shield, but as a factual question demanding proof, structure, and restraint grounded in evidentiary reality.⁸⁵²

§V. Policymaker Interpretation (Plain English)

This section intentionally omits superscript legal citations. It is drafted for direct use by Members of the United States Congress, legislative counsel, and policy staff. The objective is clarity of statutory consequence rather than academic argumentation. The legal doctrines supporting these conclusions are established elsewhere in this Doctrine and are fully sourced for judicial and scholarly purposes.

The Commodity Futures Trading Commission (CFTC) only has strong authority when a real “market” exists. That means a system with buyers and sellers, clear prices, recognizable intermediaries, and a structure similar to traditional exchanges. When those structures disappear, so does much of the CFTC’s authority to regulate market behavior.

Most digital asset systems today are not true commodities. They are managed systems. If there are people who can change the code, adjust supply, control validators, influence liquidity, or guide economic outcomes, then the system is not operating like gold, wheat, or oil. It is operating like a managed product. Managed products do not belong under classic commodities law.

This distinction matters because market-structure regulation depends on the existence of a real market. Rules about exchange registration, market manipulation, spoofing, and price discovery only work when there is a centralized or clearly defined trading structure. When trading happens across fragmented protocols, anonymous liquidity pools, or unordered code-based interactions, the traditional market framework collapses.

Fraud authority does not disappear. The government still retains strong power to prosecute lying, theft, market deception, and misrepresentation. Bad actors can and should be pursued. What changes is that the CFTC cannot legitimately claim authority to regulate the entire structure as though it were a traditional commodity market.

The Doctrine of Anchored Decentralization (DAC) gives Congress a defensible way to draw the boundary. If human discretion materially shapes outcomes, the system should be treated as managed—**not as a commodity**. If human discretion does not exist and the system functions without governance or discretionary control, then commodity-style regulation becomes more appropriate.

This framework allows Congress to protect innovation while preventing regulatory overreach. It provides a clean legal line that can be placed directly into statute, regulation, or committee guidance without relying on technical buzzwords or politically unstable definitions.

§VI. Arguments and Counter-Arguments

This section intentionally omits superscript footnotes and case citations. It is drafted as a defensive legislative instrument for the United States Congress. Its purpose is not judicial persuasion but constitutional insulation: to equip lawmakers with a legally coherent argument framework that stands independent of shifting agency interpretation, litigative volatility, and post-Chevron administrative instability. Jurisdictional and doctrinal anchors are fully documented elsewhere in this Doctrine.

Argument 1

“Digital assets behave like commodities and therefore should be regulated as such.”

Counter-Argument

This position confuses surface-level behavior with legal classification. Under long-established American legal doctrine, an object’s behavior in commerce is not the controlling factor when managerial authority exists. Commodities are defined by their lack of governance, not by how frequently they are traded or how liquid they appear to be. Wheat does not have a board of directors. Gold does not receive protocol upgrades. Oil does not adjust its supply schedule through human committees.

Where a digital system contains identifiable persons or entities capable of modifying functionality, altering token mechanics, influencing liquidity, privileging validators, or directing system outcomes, the asset ceases to be a commodity in legal substance. A system governed by human discretion is not decentralized in the constitutional sense, regardless of how “open” the network appears to be technologically.

Argument 2

“The CFTC should regulate decentralized systems aggressively to promote market stability and protect consumers.”

Counter-Argument

Stability objectives do not authorize jurisdictional expansion. After the collapse of Chevron-style deference, agencies no longer possess the structural authority to expand their own jurisdiction merely because regulation appears socially beneficial. Congress, not agencies, defines the limits of federal power. Absent explicit statutory authorization, agency attempts to expand market-structure jurisdiction into novel technological terrain become constitutionally vulnerable.

Allowing regulatory agencies to define the scope of their own authority creates constitutional instability rather than market stability. The DAC framework provides Congress with a mechanism to preserve stability while reaffirming constitutional separation of powers: stability flows from statute, not administrative improvisation.

Argument 3

“Commodity jurisdiction should logically extend to digital code because code functions as a tradable asset.”

Counter-Argument

This argument collapses the distinction between object and system. Commodities are defined by inertness. They do not evolve through governance. They do not react to voting. They do not contain embedded managerial levers. Digital codebases that can be upgraded, administered, parameter-adjusted, or economically tuned by humans are not commodities. They are systems.

A wheat kernel does not change itself because a committee votes. A barrel of oil does not receive a “patch.” A block of copper does not allow a foundation to alter its molecular structure by proposal. Yet codebases do precisely these things. Where a system is upgradable, governed, or intervention-capable, it resembles enterprise architecture—not a raw commodity.

§VI.1. Congressional Defensive Utility

These counter-arguments are intentionally constructed to function defensively for Congress. They allow lawmakers to reject unconstitutional jurisdictional expansion without appearing to oppose innovation, financial markets, or national competitiveness. They position Congress as the guardian of constitutional boundaries rather than an obstacle to technological progress.

The DAC framework enables Congress to preserve lawful innovation by drawing a bright constitutional line:

- No management → possible commodity treatment
- Any management → non-commodity, managed system

This structure does not weaken regulation. It restores its constitutional foundation.

§VII. Doctrinal Summary — CFTC Lens: Jurisdictional Expansion and Enforcement Logic

This chapter establishes a constitutional ordering of Commodity Futures Trading Commission authority in the context of digital asset markets. It rejects the modern tendency toward jurisdiction by analogy and replaces it with jurisdiction by structure. Rather than asking how unfamiliar systems might be regulated, it asks a more fundamental constitutional question: whether the structure of the system lawfully permits regulation under existing statutory authority.

Table 29 — Jurisdictional Lexicon Crosswalk: CFTC vs. SEC Authority supplies the reader with a defensible orientation framework. It translates statutory text and binding precedent into a coherent map that determines whether a system belongs within commodities law, securities law, or neither. This crosswalk is not discretionary; it is designed to be readable by Congress, courts, and enforcement staff as a shared point of legal reference.

Table 30 — System Architecture Lexicon: Commodity Qualification Matrix (CFTC Enforcement Use) supplies the structural litmus test. It moves the analysis beyond labels and focuses instead on architecture: managerial control, governance authority, discretionary upgrades, and human-directed economic levers. Where these properties exist, the commodity classification collapses as a matter of law.

Together, these instruments create a *constitutionally disciplined reference architecture that prevents jurisdictional inference in the absence of statutory and structural truth*. They do not empower jurisdictional expansion; they prevent it. They exist to protect Article I congressional authority, preserve the integrity of judicial review, and impose a legally coherent restraint on agency ambition in technologically novel environments.

The Glossary of Terms that follows is not ancillary. It operationalizes this doctrine. It provides the enforcement-grade vocabulary that allows these structural and jurisdictional constraints to be applied consistently, defensibly, and transparently across investigations, charging decisions, and judicial proceedings.

The reader should now proceed to the Glossary as the practical implementation layer of the doctrine articulated in this chapter.

§VII. Glossary of Terms — CFTC Lens — Jurisdictional Expansion and Enforcement Logic

[\(Return to TOC\)](#)

This Glossary of Terms is not a dictionary exercise. It is an enforcement architecture tool. The purpose of this glossary is to stabilize jurisdictional logic before investigative or prosecutorial authority is asserted. It is drafted to prevent the most frequent failure point in digital-asset enforcement: *the misclassification of managed systems as commodities*.

This glossary operates as the interpretive bridge between statutory law, judicial precedent, and system architecture. It must be read in direct coordination with Table 29 — Jurisdictional Lexicon Crosswalk: CFTC vs. SEC Authority and Table 30 — System Architecture Lexicon: Commodity Qualification Matrix (CFTC Enforcement Use). Those tables provide the structural boundaries; this glossary supplies the operational vocabulary that allows those boundaries to be applied consistently across fact patterns.

Table 29 functions as the jurisdictional orientation layer. It answers the threshold question every enforcement attorney must resolve before asserting authority: *Is this matter structurally within CFTC jurisdiction or SEC jurisdiction?* By mapping statutory hooks and binding precedent to operational system characteristics, Table 29 prevents jurisdiction from being inferred from labels, market hype, or agency ambition. It forces enforcement staff to anchor authority in law before proceeding.

Table 30 functions as the structural verification layer. Where Table 29 answers *which agency*, Table 30 answers *whether the system qualifies at all*. It is an architectural truth test. It examines whether the asset operates with managerial control, governance authority, upgrade discretion, programmable scarcity, or human-directed economic outcomes. If these attributes are present, the system does not qualify as a commodity market under the Commodity Exchange Act, regardless of branding or self-description.

This glossary is the *operational middle layer* between those two tables. It translates legal doctrine into enforcement-ready language. Each term is defined not for academic debate, but for practical field use: subpoenas, depositions, charging decisions, and litigation posture. The definitions supplied here are designed to align enforcement conduct with constitutional boundaries, ensuring that cases are built on structure rather than narrative.

Within §VII — *CFTC Lens — Jurisdictional Expansion and Enforcement Logic*, these three components interlock as a single enforcement discipline:

- **Table 29 establishes jurisdictional boundaries**
- **This Glossary supplies operational enforcement language**
- **Table 30 validates structural eligibility for commodity treatment**

This design protects both the Commission and the Constitution. It prevents jurisdictional inflation, reduces litigation exposure, and strengthens defensibility in federal court. It also

preserves the integrity of legitimate commodity markets by ensuring that enforcement authority is not diluted through overextension into systems that are legally foreign to commodities law.

For enforcement personnel, congressional counsel, and regulatory drafters, this glossary should be treated as a working instrument: a practical manual that ensures every assertion of authority begins with statute, passes through precedent, and survives structural reality before any action is taken.

Table 29. Jurisdictional Lexicon Crosswalk: CFTC vs. SEC Authority

(Statutory–Precedent Comparison Matrix for Digital Asset Classification)

Glossary Term / Concept	CFTC Statutory Hook	SEC Statutory Hook	Key Judicial Precedent Guidance	Jurisdictional Presumption under DAC
Commodity	CEA §1a(9), 7 U.S.C. §1a(9)	N/A (SEC does not define commodities)	<i>CFTC v. McDonnell; Forman</i>	CFTC only if no managerial control exists
Security / Investment Contract	N/A	Securities Act §2(a)(1), 15 U.S.C. §77b(a)(1)	<i>Howey; Reves</i>	SEC when managerial or entrepreneurial efforts affect value
Managerial Efforts	Jurisdiction-limiting factor	Jurisdiction-triggering factor	<i>Howey</i>	SEC if present; CFTC excluded structurally
Decentralization	Not a statutory test	Not a statutory test	<i>Forman; Howey</i>	Irrelevant unless no human discretion exists
Protocol Governance	Negative factor (weakens commodity status)	Positive factor (evidence of enterprise)	<i>Reves; Telegram</i>	Presumptive SEC jurisdiction
Price Discovery Structure	CEA §§4–6; DCM Core Principles	Exchange Act §6	<i>Coscia</i>	CFTC only if coherent, centralized market exists
Order Book	Structural foundation of commodities markets	Not required for securities	<i>McDonnell</i>	CFTC weakened or eliminated when absent
Actual Delivery	CEA §2(c)(2)(D), 7 U.S.C. §2	N/A	<i>CFTC v. McDonnell</i>	CFTC only if real delivery structure exists

Fraud / Manipulation	CEA §6(c), 7 U.S.C. §9	Securities Act §17(a)	<i>Zandford</i>	Concurrent authority (conduct-based, not structure-based)
Decentralized Exchange (DEX)	Weak nexus unless structured like DCM	Possible securities nexus	<i>McDonnell</i>	Neither agency gets market-structure authority without governance proof
Governance Tokens	Weakens commodity classification	Evidence of security-like governance	<i>Reves</i>	SEC presumptive jurisdiction
Upgradable Codebase	Incompatible with commodity logic	Indicates active enterprise	<i>Howey; Telegram</i>	SEC presumptive jurisdiction
Validator Admission Control	Inconsistent with commodity markets	Indicates centralized enterprise control	<i>Reves</i>	SEC presumptive jurisdiction
Supply Schedule Control	Natural for commodities only	Managed supply triggers securities analysis	<i>Howey</i>	SEC presumptive jurisdiction when programmable
Fork / Rollback Authority	Incompatible with commodities	Signals centralized management	<i>Telegram</i>	SEC presumptive jurisdiction
Custody / Intermediation	FCM / DCM / SEF structure required	Broker-dealer / clearing agency model	<i>Forman</i>	Depends on actual custody structure, not label
Geographic Nexus	CEA jurisdiction requires U.S. commerce	Exchange Act §10(b) territorial logic	<i>Morrison</i>	Limits both agencies when conduct is extraterritorial
Investment of Money	Not required	Required	<i>Howey</i>	SEC jurisdiction when present
Expectation of Profit from Others	Excluded	Required	<i>Howey</i>	SEC jurisdiction when present

Enterprise-like Revenue Distribution	Incompatible with commodities	Hallmark of securities	<i>Reves</i>	SEC jurisdiction

Footnote

This table is designed as a statutory-defensive instrument for Congress. In the current regulatory environment, jurisdictional determinations are frequently influenced by non-legal drivers, including agency press positioning, policy preference, technological anxiety, and political externalities rather than statutory text or structural fact. Table 29 replaces ad hoc discretion with a disciplined triad of statutory authority, binding judicial precedent, and verifiable system architecture. Its purpose is to provide Congress and reviewing courts with a single, stable reference point capable of answering the threshold question: *Where, if anywhere, does this system lawfully fit?*

Actual Delivery

The transfer of full ownership and control of an asset from seller to buyer within a commercially reasonable time. From an enforcement perspective, this is a threshold test for determining whether a transaction falls inside or outside retail commodity jurisdiction.

Books and Records Obligations

The statutory and regulatory requirements imposed on registrants to maintain accurate, complete, and auditable records of trading, communications, custody, and financial conditions. These obligations are treated as foundational for enforcement investigations.

Centralized Intermediary

A person or entity that controls access to a market, clears trades, holds customer funds, or otherwise performs functions traditionally associated with exchanges, brokers, or clearing organizations.

Commodity (CEA Usage)

A fungible good, service, right, or interest whose economic value is not dependent on the managerial efforts of others. From an enforcement lens, this definition excludes assets whose value is materially shaped by protocol developers, foundations, or governing bodies.

Control Person

Any individual or entity with direct or indirect power to influence operational, financial, or governance decisions of a platform or protocol. Used by enforcement to pierce decentralization claims and identify liability anchors.

Decentralization (Enforcement Usage)

A factual inquiry, not a marketing claim. Measured by whether any identifiable group retains power over upgrades, economic parameters, validator access, liquidity routing, or system continuity.

Designated Contract Market (DCM)

A trading facility registered with the CFTC that hosts futures or options trading under core principles related to surveillance, fairness, financial integrity, and customer protection.

Discretionary Authority

Any retained human authority to modify system behavior, voting mechanisms, consensus rules, liquidity privileges, or token economics. A central trigger for enforcement jurisdictional analysis.

Enforcement Anchor

The specific statutory hook or factual nexus that supports jurisdiction. Examples include domestic conduct, use of interstate commerce, U.S.-based victims, or identifiable managerial actors.

Fraud and Manipulation Authority

The CFTC's power to prosecute deceptive schemes, false statements, spoofing, wash trading, and other misconduct regardless of registration status.

Geographic Nexus

The domestic connection required for jurisdiction, including servers, personnel, victims, counterparties, or conduct occurring within the United States.

Governance Token

A digital instrument granting voting power over protocol rules, upgrades, or economic parameters. From enforcement view, such tokens evidence discretionary managerial control.

Interstate Commerce Nexus

The factual link tying conduct to U.S. commerce, necessary to invoke federal jurisdiction.

Jurisdictional Inflation

The attempted expansion of agency authority beyond its statutory foundation through interpretive theories, policy goals, or technology-driven arguments.

Liquidity Provider (LP)

An individual or entity supplying capital to a trading venue or protocol. When coordination or preference exists, LPs may be treated as control persons or intermediaries.

Managed System

A digital network whose operations, economics, or security depend on identifiable human discretion, governance mechanisms, or coordinated authority. Treated as non-commodity for structural jurisdiction purposes.

Market Integrity

The condition in which pricing, trading, and participation occur in a fair, transparent, and non-manipulated environment. From enforcement view, this presumes the existence of a coherent market structure.

Order Book

A centralized or semi-centralized system recording bids and offers. Absence of a coherent order book undermines traditional market-structure enforcement models.

Personal Jurisdiction

The court's authority over specific individuals or entities based on their contacts with the United States.

Price Discovery

The process by which markets establish asset value through transparent, competitive trading. Fragmented or non-existent price discovery weakens classic enforcement models relying on "market distortion."

Protocol Governance

The formal or informal structures by which a network modifies its own rules, economics, or security. For enforcement purposes, this is treated as evidence of managerial control.

Registrant

Any individual or entity registered with the CFTC, including FCMs, IBs, DCMs, SEFs, and CPOs.

Retail Commodity Transaction

A leveraged, margined, or financed transaction entered into with a retail customer that does not result in actual delivery.

Smart Contract

Automated code that executes transactions. From enforcement view, the presence of automation does not eliminate liability where human design, deployment, or control influences outcomes.

Spoofing

The practice of placing and canceling orders to manipulate perceived supply and demand. In decentralized systems, enforcement focuses on behavioral evidence rather than market formality.

Surveillance Authority

The CFTC's power to monitor trading activity and market behavior when a legally recognizable market infrastructure exists.

Swaps Execution Facility (SEF)

A registered trading system for swaps that is subject to CFTC oversight.

Wash Trading

Simulated trades designed to create artificial volume or false market signals.

Table 30. System Architecture Lexicon: Commodity Qualification Matrix (CFTC Enforcement Use)

System Property	Legal Standard for Commodities (CEA Baseline)	Observed in Digital Asset Systems	DAC Classification Outcome
Managerial Control	No identifiable controlling actor	Present → Developer teams, foundations, multisigs	Non-Commodity if present
Upgrade Authority	No capacity for discretionary alteration	Present → Admin keys, governance votes, emergency patches	Non-Commodity if present
Governance Voting	None (commodities do not vote)	Present → Token-based or council voting	Non-Commodity if present
Supply Adjustability	Natural scarcity (geology, biology, physics)	Programmable issuance, burns, mints	Non-Commodity if programmable
Human Discretion Over Outcomes	None	Present → Parameter tweaking, validator curation	Non-Commodity if present
Price Formation Structure	Transparent, centralized or coherent	Fragmented, pool-based, or protocol-driven	Weakens commodity classification
Order Book Existence	Recognizable centralized mechanism	Often absent or simulated	Weakens CFTC market-structure authority
Custodial Intermediary	Clear brokers, FCMs, clearinghouses	Usually absent or obscured	Undermines classic exchange model
Protocol Dependency	None	Operational success depends on active maintenance	Indicative of managed system
Fork / Rollback Authority	Impossible	Possible via human coordination	Non-Commodity if possible
Validator / Miner Admission Control	Not applicable	Often permissioned or influenceable	Indicates discretionary governance
Settlement Finality	Natural physical delivery	Probabilistic, reversible, or admin-controlled	Weakens commodity characterization
Geographic Anchor	Physical extraction/storage location	Stateless, virtual infrastructure	Weakens traditional jurisdiction theory

Economic Logic Source	Market physics (supply/demand only)	Embedded rules, emissions logic, governance knobs	Non-Commodity if logic is managed

Doctrinal Summary — CFTC Lens — Jurisdictional Expansion and Enforcement Logic

This Glossary of Terms operationalizes a constitutionally disciplined reference architecture designed to prevent jurisdictional inference in the absence of statutory and structural truth. It does not function as a mechanism of jurisdictional expansion. It functions as a mechanism of jurisdictional restraint.

Within §VII — *CFTC Lens — Jurisdictional Expansion and Enforcement Logic* — the glossary is structurally anchored to Table 29 (Jurisdictional Lexicon Crosswalk: CFTC vs. SEC Authority) and Table 30 (System Architecture Lexicon: Commodity Qualification Matrix – CFTC Enforcement Use). Together, these instruments establish a sequential discipline: statutory boundary recognition, structural system validation, and operational terminology alignment. This triad is designed to stabilize enforcement logic before investigative discretion is exercised.

Table 29 establishes the jurisdictional orientation layer. It translates statutory authority and binding judicial precedent into a functional crosswalk capable of resolving threshold classification disputes between commodities and securities frameworks. Table 30 establishes the architectural verification layer. It imposes a structure-first analysis that conditions the availability of commodity classification on the absence of managerial discretion, governance interference, or human-directed economic control.

The glossary itself functions as the linguistic enforcement core of the doctrine. It supplies definitions not as academic abstractions but as operational constraints. These definitions are drafted to ensure that enforcement posture remains faithfully tethered to constitutional separation-of-powers principles, post-*Chevron* administrative discipline, and federalist jurisdictional limits.

Collectively, this architecture does not empower the CFTC to regulate more expansively. It restricts the Commission to regulating only where its authority is legally earned. The design thereby protects Congress’s Article I prerogatives, preserves judicial review integrity, and reduces constitutional exposure created by interpretive overreach.

By replacing agency instinct with statutory discipline, precedent anchoring, and structural fact testing, this framework establishes a defensible enforcement logic that is resilient to technological novelty and political pressure. The result is a durable, court-survivable model for digital-asset jurisdiction that protects both constitutional order and legitimate market integrity.

References

- ⁸⁰⁷ *Commodity Exchange Act*, 7 U.S.C. § 1 *et seq.*
- ⁸⁰⁸ *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247 (2010).
- ⁸⁰⁹ *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244 (2024).
- ⁸¹⁰ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁸¹¹ *CFTC v. McDonnell*, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).
- ⁸¹² *Commodity Exchange Act* § 1a(9), 7 U.S.C. § 1a(9).
- ⁸¹³ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁸¹⁴ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁸¹⁵ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁸¹⁶ *Gonzales v. Raich*, 545 U.S. 1 (2005).
- ⁸¹⁷ *NFIB v. Sebelius*, 567 U.S. 519 (2012).
- ⁸¹⁸ *Free Enter. Fund v. PCAOB*, 561 U.S. 477 (2010).
- ⁸¹⁹ *Commodity Exchange Act* § 6(c)(1), 7 U.S.C. § 9(1).
- ⁸²⁰ *CFTC v. McDonnell*, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).
- ⁸²¹ *United States v. Coscia*, 866 F.3d 782 (7th Cir. 2017).
- ⁸²² *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).
- ⁸²³ *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247 (2010).
- ⁸²⁴ *Dirks v. SEC*, 463 U.S. 646 (1983).
- ⁸²⁵ *SEC v. Zandford*, 535 U.S. 813 (2002).
- ⁸²⁶ *Free Enter. Fund v. PCAOB*, 561 U.S. 477 (2010).
- ⁸²⁷ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁸²⁸ *Commodity Exchange Act* § 1a(9), 7 U.S.C. § 1a(9).
- ⁸²⁹ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁸³⁰ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁸³¹ *Commodity Exchange Act*, 7 U.S.C. § 1 *et seq.*
- ⁸³² *Commodity Exchange Act* § 6(c), 7 U.S.C. § 9; *CFTC Core Principles for Designated Contract Markets*, 17 C.F.R. pt. 38.
- ⁸³³ *Merrill Lynch, Pierce, Fenner & Smith Inc. v. Curran*, 456 U.S. 353 (1982).
- ⁸³⁴ *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 225–27 (E.D.N.Y. 2018).
- ⁸³⁵ *United States v. Coscia*, 866 F.3d 782 (7th Cir. 2017).
- ⁸³⁶ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).
- ⁸³⁷ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁸³⁸ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁸³⁹ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁸⁴⁰ *Commodity Exchange Act*, 7 U.S.C. § 1 *et seq.*
- ⁸⁴¹ *Morrison v. Nat’l Australia Bank Ltd.*, 561 U.S. 247 (2010).
- ⁸⁴² *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁸⁴³ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁸⁴⁴ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁸⁴⁵ *Tcherepnin v. Knight*, 389 U.S. 332 (1967).
- ⁸⁴⁶ *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁸⁴⁷ *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244 (2024).
- ⁸⁴⁸ *Free Enter. Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477 (2010).
- ⁸⁴⁹ *Gonzales v. Raich*, 545 U.S. 1 (2005).
- ⁸⁵⁰ *SEC v. Telegram Grp. Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁸⁵¹ *NFIB v. Sebelius*, 567 U.S. 519 (2012).
- ⁸⁵² *Merrill Lynch, Pierce, Fenner & Smith Inc. v. Curran*, 456 U.S. 353 (1982).

§VIII. SEC Lens — Boundary Management and Doctrinal Friction

[\(Return to TOC\)](#)

The Securities and Exchange Commission’s jurisdiction is grounded in three doctrinal pillars: the *Howey* “investment contract” test, the *Reves* “family resemblance” framework for notes, and *Forman*’s distinction between consumption and investment.⁸⁵³ These doctrines were designed to identify economic realities concealed behind formal labels, not to exempt systems merely because managerial activity is diffused across networks.⁸⁵⁴ DAC applies these tests through a constitutional and systems-architecture lens, demonstrating that decentralization by dispersion does not negate dependency on managerial effort.

§I. The “Efforts of Others” Clause in Consensus Models

Under *SEC v. W.J. Howey Co.*, an asset constitutes a security where purchasers invest money in a common enterprise with a reasonable expectation of profits derived from *the efforts of others*.⁸⁵⁵ The phrase “efforts of others” has never been limited to traditional corporate management. Rather, courts evaluate whether economic outcomes depend upon *discretionary, coordinated, human activity* external to the investor.⁸⁵⁶

In decentralized digital networks, the following actors repeatedly perform functions that meet this standard:

- **Consensus participants**, who determine transaction ordering and block inclusion through discretionary selection mechanisms.⁸⁵⁷
- **Governance token holders**, who alter protocol parameters, fee structures, inflation schedules, and economic rules through voting or proposal frameworks.⁸⁵⁸
- **Validator operators**, who exercise censorship discretion, impose MEV extraction priorities, and selectively process network activity.⁸⁵⁹
- **Developers**, who control repositories, author protocol upgrades, and direct code-level change, whether formally or informally.⁸⁶⁰
- **Oracle providers**, who inject discretionary external data into protocol state, materially affecting price, liquidation, and settlement.⁸⁶¹

DAC demonstrates that in such systems, *consensus is not mechanical*; it is managerial. Where protocol outcomes depend upon coordinated discretionary behavior by identifiable human actors, the system satisfies the *Howey* “efforts of others” prong as a matter of constitutional substance.⁸⁶²

This collapses the industry’s attempted distinction between “*technical participation*” and “*managerial effort*.” Where economic outcomes require:

- discretionary judgment,
- synchronized coordination, and
- ongoing behavioral governance,⁸⁶³

...the structure functions as a managed enterprise, not an inert commodity.

DAC therefore concludes that many so-called “decentralized” tokens are not merely adjacent to securities law — they are *structurally disguised investment contracts*. Their consensus mechanisms do not defeat *Howey*; they satisfy it.⁸⁶⁴

Doctrinal Clarification Note — Smart Contracts and Pooled Investment Logic

For purposes of this Doctrine, any smart contract architecture that aggregates capital from multiple participants, reallocates pooled assets, distributes yield, rebalances positions, or otherwise coordinates shared financial outcomes shall be understood as functionally consistent with the legal structure of a pooled investment vehicle or common enterprise under established United States securities jurisprudence.

This conclusion is derived from the economic-reality doctrine articulated by the Supreme Court in *SEC v. W.J. Howey Co.*, which establishes that a security exists where there is (i) an investment of money, (ii) in a common enterprise, (iii) with a reasonable expectation of profit to be derived from the efforts of others. When smart contracts operate as pooled systems in which participant outcomes are linked by shared risk pools, algorithmic or developer-configured logic, or governance-layer discretion, the commonality and reliance elements of *Howey* are satisfied irrespective of the technological form of execution.

This interpretation is reinforced by *United Housing Foundation, Inc. v. Forman*, which holds that substance governs over form and that nomenclature or technical design does not control legal classification where the economic reality reflects investment-oriented behavior. Smart contracts that function to manage shared capital, coordinate collective economic exposure, or algorithmically administer return distributions embody the precise economic characteristics *Forman* requires courts to prioritize over labels.

Further, under *Reves v. Ernst & Young*, instruments function as securities where they resemble traditional investment arrangements based on motivations of the parties, reasonable expectations of investors, the presence of risk-spreading mechanisms, and the absence of an alternative regulatory structure. Smart contract systems that pool assets for yield, governance-controlled outcomes, or protocol-managed profit structures satisfy these criteria by distributing risk across participants and creating reliance on system architects, coders, or controlling governance bodies.

Accordingly, the mere automation of these functions through software does not alter their legal substance. Code does not negate common enterprise, managerial orchestration, or reliance; rather, it operationalizes them. When smart contract architectures replicate the economic behavior of pooled capital management, they must be understood as the functional equivalent of collective investment vehicles, irrespective of whether these mechanisms are executed by human discretion or embedded programmatic logic.

The architectural neutrality of technology does not nullify the constitutional and statutory framework governing pooled investment risk under United States law.

§II. Disclosure Doctrine for Non-Corporate Assets

The Securities and Exchange Commission’s traditional disclosure framework was constructed for corporate issuers with identifiable management, boards, and centralized financial reporting obligations.⁸⁶⁵ Decentralized digital systems disrupt this architecture by eliminating the formalized issuer structure while retaining — and often concealing — functional centers of control. This has produced a doctrinal mismatch whereby disclosure obligations are avoided not because managerial risk is absent, but because managerial identity is diffused.⁸⁶⁶

In decentralized asset structures, the SEC confronts four recurring legal obstacles:

- No formally incorporated *issuer entity*.
- *Distributed governance* rather than centralized board authority.
- *Technical risk* substituting for traditional operational risk.
- *Dynamic control structures* rather than static managerial hierarchies.⁸⁶⁷

DAC resolves this tension by shifting disclosure analysis from *issuer-based disclosure* to *control-based disclosure*, restoring alignment with constitutional and statutory purpose.

Under DAC, the operative inquiry is no longer “Who issued the asset?” but:

- Who can *upgrade* the protocol?⁸⁶⁸
- Who can *modify or impose fees*?⁸⁶⁹
- Who controls *multisignature governance keys*?⁸⁷⁰
- Who influences *token supply, emissions, or burn mechanics*?⁸⁷¹

Where the answers point toward *identifiable persons, coordinated groups, or privileged technical actors*, the system satisfies the *Howey* reliance structure as a matter of legal substance.⁸⁷² The market participant is necessarily relying upon the *discretionary managerial conduct of others*, regardless of whether those actors self-identify as “developers,” “validators,” or “governance participants.”⁸⁷³

DAC thus reframes disclosure obligations as a function of *latent power*, not formal title. A decentralized system that contains:

- upgrade authority
- fee-setting discretion
- governance-key control
- economic steering mechanisms⁸⁷⁴

...necessarily contains *material risks* that must be disclosed under securities law, irrespective of corporate form. The absence of a corporation does not defeat *Howey*; rather, it intensifies the need for disclosure, because the managerial risk is obscured by architecture rather than eliminated.⁸⁷⁵

Accordingly, DAC restores constitutional coherence to disclosure doctrine by re-centering it on *control, discretion, and reliance*, rather than corporate formalities.

To operationalize the control-based disclosure doctrine articulated in this section, DAC introduces a functional disclosure trigger matrix designed to replace issuer-formalism with structural reality. This framework enables courts, regulators, and policymakers to evaluate decentralized systems based on *who actually holds discretionary power* rather than on corporate formality or token labels. Table 31 translates technical architecture into constitutional and securities-law consequences, providing a repeatable judicial tool for determining when decentralized assets trigger disclosure obligations under Howey-derived doctrine.

Table 31. Control-Based Disclosure Trigger Matrix (Non-Corporate Assets)

Control Feature	Actor Identifiable	Discretionary Authority Exists	Economic Outcomes Alterable	Disclosure Obligation Triggered	Howey Prong Activated	Doctrinal Consequence
Protocol Upgrade Keys	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Prong 2 & 3	Investment contract likely
Multisig Treasury Control	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Prong 3	Managerial enterprise established
Governance Token Vote Power	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Prong 2	Functional issuer identified
Oracle Price Feeds	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Prong 3	Reliance on discretionary actors
Emergency Pause Functions	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Prong 3	De facto executive authority exists
Validator Slashing Authority	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Prong 2	Economic coercion apparatus present
Fee Parameter Control	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Prong 2	Revenue-shaping managerial effort
Repository Merge Rights	✓ Yes	✓ Yes	✓ Yes	✓ Yes	Prong 3	Latent control = disclosure duty

Purely Automated Execution (Theoretical)	✗ No	✗ No	✗ No	✗ No	Not activated	Commodity-eligible (design-only class)

§III. Promotional Activity as Managerial Conduct

Founders and affiliated actors of purportedly “decentralized” systems routinely characterize their networks as community-driven, leaderless, and structurally immune from centralized control. In operational reality, however, these same actors frequently engage in sustained promotional and directional conduct, including media appearances, roadmap dissemination, protocol evangelism, governance coordination, and continuous market-facing communications. Such activity does not exist in a legally neutral vacuum; it functions as *managerial signaling* with direct regulatory consequence because it alters market behavior, shapes investor expectations, and materially influences price formation.⁸⁷⁶

Under settled securities jurisprudence, managerial conduct is not constrained to formal corporate titles or board-level authority. Courts have consistently recognized that *soft power, informational asymmetry, and strategic communications* can constitute the “efforts of others” under *SEC v. W.J. Howey Co.*, where investor reliance is produced through narrative and signaling rather than formalized governance.⁸⁷⁷ This principle has been reaffirmed in digital-asset enforcement. In *SEC v. Kik Interactive Inc.*, the court emphasized that promotional conduct and token-sale narratives could satisfy Howey’s managerial prong despite decentralization claims.⁸⁷⁸ Likewise, *SEC v. Telegram Group Inc.* rejected structural formalities in favor of economic reality, focusing on the practical dependence of network value upon the issuer’s ongoing promotional and organizational efforts.⁸⁷⁹

Promotional conduct therefore operates as *quasi-fiduciary activity*. Whitepapers, keynote addresses, Discord and Telegram leadership, GitHub stewardship, and ecosystem-grant coordination all convey an implicit promise of stewardship. These actions cultivate a legally cognizable expectation that identifiable persons will drive future value. Courts have repeatedly held that such expectations are central to determining whether an arrangement constitutes an investment contract, as articulated in *United Hous. Found., Inc. v. Forman* and its progeny.⁸⁸⁰

DAC formalizes this legal reality through the doctrine of *managerial signaling*: *where speech alters market behavior, speech becomes functionally managerial*.⁸⁸¹

Conference appearances, governance-forum participation, coordinated development narratives, and ecosystem-building initiatives generate market-moving influence attributable to specific actors. Judicial analysis does not interrogate the sincerity of decentralization rhetoric; instead, it examines *functional economic reality*, consistent with *Forman* and related jurisprudence rejecting form-over-substance defenses.⁸⁸² Courts in crypto-asset contexts have increasingly applied this logic by examining real-world dependency rather than stated intent, as reflected in *SEC v. Ripple Labs Inc.*, where the court analyzed the economic role of identifiable actors in shaping market expectations of token value.⁸⁸³

Founders or affiliated actors who publicly:

- promote token functionality,
- advertise future technical upgrades,
- publish economic projections,
- coordinate validator narratives, or
- endorse governance outcomes,

are engaging in conduct that is analytically equivalent to executive leadership, regardless of organizational disclaimers or decentralized branding.⁸⁸⁴ In *CFTC v. McDonnell*, the court recognized that influence over virtual-currency markets through communications and structural positioning can trigger regulatory authority even absent formal governance rights, reinforcing the principle that *functional control, not title, governs legal characterization*.⁸⁸⁵

DAC therefore treats *sustained promotional activity as presumptive managerial conduct*, regardless of disclaimers, decentralization rhetoric, or organizational form. Where founders or dominant communicators remain the narrative center of gravity, the network is not self-governing—it is *person-governed by communication*.⁸⁸⁶

DAC further recognizes the phenomenon of *threshold-induced structural influence*, a concept grounded in both historical legal logic and modern digital-asset enforcement patterns. Even where original founders are absent, anonymous, or inactive, sufficiently concentrated holdings can generate *de facto governance effects*. At sufficient scale, an actor’s economic position becomes structurally embedded in network stability, liquidity expectations, and price-formation dynamics. This condition does not require formal authority, voting rights, or protocol control. It arises from *market physics*, not legal titles. When this holdings-based influence crosses a functional threshold, the network ceases to behave as a self-governing architecture and instead becomes risk-sensitive to singular-actor behavior. This mirrors judicial concerns seen in *Telegram*, *Kik*, and *Ripple*, where courts focused on practical dependence and market vulnerability rather than formal decentralization. Decentralized code may remain intact while *economic gravity becomes centralized*.⁸⁸⁷

Doctrinal Position of DAC:

Promotional authority is managerial authority.

Narrative control is economic control.

Economic control defeats commodity ontology.⁸⁸⁸

§IV. Delegated Governance Tokens as Unregistered Voting Securities

Governance tokens in digital-asset systems are frequently characterized as “community coordination tools” or “utility governance mechanisms.” In functional reality, however, these instruments allocate *delegated managerial power* through on-chain voting processes that directly mirror the legal and economic characteristics of traditional securities.⁸⁸⁹ These tokens provide holders with:

- formal voting rights over protocol rules,
- claim-like interests in treasury-controlled assets,
- influence over protocol economics, issuance rates, and fee structures, and
- managerial authority through binding on-chain proposals.⁸⁹⁰

These attributes are doctrinally indistinguishable from:

- corporate voting shares,
- LLC membership interests, and
- investment-contract governance rights.⁸⁹¹

Under fundamental securities jurisprudence, an instrument need not be labeled “stock” to be regulated as such. Courts evaluate *substance over form*, focusing on whether the instrument confers voting power, economic participation, and reliance upon the managerial efforts of others.⁸⁹² Where governance tokens grant holders authority to alter protocol rules, treasury distributions, or economic parameters, they operate as *delegated governance instruments* rather than consumptive utilities.⁸⁹³

The presence of *tokenholder-based voting does not negate managerial structure*. Instead, it formalizes managerial delegation. Courts have recognized that even distributed decision-making architectures can satisfy the “efforts of others” requirement when managerial authority is exercised within a predefined structural framework.⁸⁹⁴ The existence of “community proposals” and “on-chain governance” does not eliminate centralization; it codifies it.⁸⁹⁵

Most governance-token systems retain embedded hierarchies in practice, including:

- founder-held supermajority positions,
- foundation-controlled delegations,
- privileged proposal pipelines, and
- discretionary emergency powers.⁸⁹⁶

These structures replicate traditional corporate governance mechanisms while avoiding statutory registration requirements.

DAC therefore classifies governance tokens as *per se investment interests* where voting rights, treasury control, or economic influence are bundled into tokenized form. Absent strict and provable disintermediation—defined as the elimination of managerial discretion, governance control, and upgrade authority—such tokens constitute *unregistered voting securities* under longstanding doctrine.⁸⁹⁷

Doctrinal Position of DAC:

Delegated voting authority is managerial authority.

Treasury influence is economic control.

Economic control constitutes a security interest.⁸⁹⁸

§V. Policymaker Translation (Plain English)

This section is intentionally written without citations. It is drafted in clear language for Members of the United States Congress and Congressional Counsel to allow direct operational understanding without legal cross-reference burden.

If people must rely on developers, founders, validators, or foundation-linked actors to make a system work, then the system is not truly decentralized. In that case, it functions like a traditional company and should be regulated as a security.

If holders of “governance tokens” are given real power to change how a protocol operates, how money moves through the system, or how resources are allocated, then those tokens function like voting shares in a company. That makes them securities.

If founders or influential insiders shape outcomes through public statements, roadmap promises, coordinated announcements, or voting influence, then the market is responding to people, not code. When people drive outcomes, the instrument is a security.

Decentralization is not a slogan. It is an engineering condition. If human beings retain control, influence, or the power to change outcomes, then decentralization does not exist in a legally meaningful sense.

DAC provides Congress with a clear, repeatable rule:

*When managerial control exists, decentralization dissolves.
When decentralization dissolves, securities law applies.*

This framework allows Congress to create stable, enforceable boundaries that protect markets, investors, and national financial infrastructure without stifling legitimate innovation.

§VI. Arguments and Counter-Arguments

This section is intentionally drafted without citations or footnote references. It is written in plain operational language for Members of the United States Congress and Congressional Counsel to enable direct policy use without technical burden.

Argument

“Governance tokens are merely “utility tokens” used for coordination.”

Counter-Argument

Voting power is management power. When a token allows a holder to change protocol rules, treasury use, or economic parameters, that token is not a utility. It is a management instrument. Management authority is a defining feature of a security.

Argument

“Distributed validators eliminate centralized control.”

Counter-Argument

Distribution of participation does not eliminate management. It relocates it. If participation directly alters economic outcomes, protocol behavior, or financial flows, it is managerial in nature. A system does not become non-managerial simply because management is widely shared.

Argument

“There is no corporate issuer, therefore the instrument is not a security.”

Counter-Argument

Securities law is not limited to corporations. The legal test does not require a registered company. It requires that purchasers rely on the managerial efforts of others. When reliance exists, the legal category follows the economic function, not the corporate form.

The controlling principle is simple:

*If people manage outcomes, the system is not decentralized.
If decentralization fails, securities law applies.*

DAC gives Congress a clear standard to distinguish between legitimate technological innovation and disguised managerial systems operating outside existing law.

§VII. Volatility as a Regulatory Signal: Historical Drawdowns and the Economics of Systemic Risk

Federal regulatory concern regarding Bitcoin and broader digital-asset markets has not been fundamentally technological in nature. Rather, it has been grounded in classical risk-stability economics: the relationship between *extreme asset volatility, investor confidence, and systemic trust collapse*.

Regulatory institutions in the United States were architected in response to historical market failures characterized by catastrophic drawdowns. The creation of the Securities and Exchange Commission in 1934 followed the 1929–1932 market collapse, which remains the reference point for modern market-stability doctrine.

Between September 3, 1929, and July 8, 1932, the Dow Jones Industrial Average declined from approximately 381.17 to 41.22, representing an 89% loss in value. The initial systemic shock occurred during a four-day window from October 24 (“Black Thursday”) through October 29 (“Black Tuesday”), in which the Dow fell from 305.85 to 230.07, approximately –25% in four sessions. By mid-November 1929, the market had lost nearly 50% of its value, with broader market indices reflecting declines of roughly 33% between September and November. The

extended multi-year collapse destroyed household wealth, destabilized banking systems, and precipitated long-term economic contraction.

From an institutional design perspective, the SEC was not created to respond to technology. It was created to respond to tail-risk drawdowns, speculative bubbles, and public-confidence collapse.

Bitcoin's market history exhibits drawdown behavior that strongly resembles pre-regulatory market instability patterns.

The most extreme Bitcoin collapse occurred in June 2011, when price declined from approximately \$32 to near-zero, representing an estimated 99% drawdown in a single trading episode, following the Mt. Gox exchange compromise. Subsequent major drawdowns demonstrate repetition of extreme-volatility signatures:

- **April 2013:** approximately –83%, from ~\$260 to ~\$50, associated with exchange system failures and liquidity shocks.
- **November 2013 to January 2015:** approximately –86%, from ~\$1,200 to ~\$170, coinciding with regulatory uncertainty and the Mt. Gox bankruptcy.
- **December 2017 to December 2018:** approximately –84%, from ~\$20,000 to ~\$3,200, associated with market deleveraging and global regulatory contraction.
- **March 2020:** approximately –50% in two days, during COVID-related global risk-off conditions.
- **May 2021:** approximately –53%, resulting from environmental narrative shocks and foreign regulatory actions.
- **November 2021 to November 2022:** approximately –77%, from ~\$69,000 to ~\$15,500, linked to macro-tightening and systemic failures such as Terra/Luna and FTX.

A recent market episode reinforces the structural volatility pattern described above. According to CoinMarketCap data provided for this analysis, Bitcoin traded at approximately \$110,064.43 on November 1, 2025, and declined to approximately \$82,228.77 by November 21, 2025, reflecting a drawdown of roughly 25% in less than three weeks. While materially smaller than the depression-era equity collapse or Bitcoin's historic 70–90% crashes, the speed and magnitude of this correction exemplify the type of high-velocity price instability that modern market-stability frameworks are designed to detect. From a regulatory-economics perspective, such rapid depreciation functions as a systemic stress signal. The concern is not the underlying technology but the persistence of drawdown dynamics that historically correlate with loss of investor confidence, liquidity contraction, and broader confidence erosion.

From a comparative economic-systems lens, these drawdowns place Bitcoin within the risk signature range of historically fragile markets. Traditional U.S. equity markets exhibit major bear markets on the order of 20–50%, while depression-level events exceed 80% only under rare

systemic failure conditions. Bitcoin has repeatedly observed 70–90% drawdowns as routine cyclical events.

This pattern is economically significant.

From a Harvard market-stability framework, such volatility is not interpreted as innovation. It is interpreted as *structural fragility* — a condition known to erode public trust, amplify speculative behavior, and trigger regulatory immune responses.

In this context, regulatory agencies do not evaluate blockchain as a technology. They evaluate *drawdown amplitude, liquidity rupture, contagion vectors, and systemic confidence degradation*. Bitcoin's behavior is analyzed not as a digital experiment, but as a *high-amplitude stress-event generator* within the broader financial ecosystem.

Thus, regulatory posture is not a reaction to decentralization. It is a response to *measurable economic risk indicators*.

As Henri Bergson observed in 1928,

“An increase in the material means at the disposal of humanity may even present dangers unless it is accompanied by a corresponding spiritual effort.”

From a market-stability architecture perspective, this observation is not philosophical — it is *structural*. When economic systems scale faster than their legal and ethical frameworks, risk does not disappear. *It concentrates.*

The failure to align technological power with economic and legal discipline is not merely an absence of foresight. It is a *systemic vulnerability*.

Markets built without constraint do not liberate humanity.

They expose it.

Technology does not remove responsibility.

It amplifies it.

Structure is not restraint.

It is stewardship.

Glossary of Terms §VIII. SEC Lens — Boundary Management and Doctrinal Friction

[\(Return to TOC\)](#)

This Glossary is not supplementary. *It is structural.*

The definitions that follow are drafted not as academic abstractions, but as operational instruments for regulators, policymakers, and courts tasked with maintaining the integrity of United States market architecture. Chapter §VIII addresses a central problem that has emerged across digital-asset markets: the systematic erosion of legal boundaries through linguistic reframing, technical abstraction, and behavioral misdirection. The SEC Lens does not treat this as rhetorical conflict. It treats it as *boundary failure*.

The Securities and Exchange Commission does not regulate narratives. It regulates economic reality. This chapter is therefore organized around the principle that statutory classifications are not symbolic categories but *load-bearing structural elements* of market stability. When boundaries between securities, commodities, and currencies blur, doctrinal friction emerges—not as a philosophical disagreement, but as systemic strain within the financial infrastructure of the Republic.

Two evidentiary instruments anchor this chapter.

Table 32 — Jurisdictional Boundary Matrix is presented as a structural diagnostic. It contrasts SEC and CFTC jurisdiction not as competing authorities, but as coordinated boundary-preservation systems operating under distinct statutory mandates. The table functions as an architectural cross-section of federal market supervision, demonstrating that the SEC’s concern is not technological novelty, but the presence of managerial reliance, delegated control, and economic dependency. By design, Table 32 illustrates that jurisdiction is not asserted through preference, but triggered through economic structure.

Table 33 — DeFi Classification Safety Checklist (SEC Education Tool) functions as the applied engineering model of this chapter. It converts doctrinal interpretation into operational diagnostics. This table is not written for lawyers. It is written for builders, founders, developers, and market participants. Within a Harvard-level legal framework, Table 33 performs the same role as a stress test or compliance audit: it translates abstract doctrine into functional architecture. Where Table 32 establishes boundary theory, Table 33 operationalizes boundary detection.

Together, these tables are not illustrative. They are evidentiary. They demonstrate that decentralized systems are not misperceived by regulators; they are being correctly interpreted through existing legal instruments that have governed economic behavior for over a century. The presence of doctrinal friction is not created by the SEC. It is revealed by measurable economic conditions.

The Glossary that follows provides precise definitions for the structural forces identified in these tables. Each term is drafted from the SEC’s institutional perspective, emphasizing functional control, reliance, market influence, and systemic risk rather than technological implementation. These terms are intended to be used by:

- enforcement staff interpreting violations,
- Congressional counsel assessing statutory clarity,
- courts evaluating functional economic reality, and
- market participants seeking lawful architectural design.

This chapter does not argue that digital markets are unlawful. It argues that they are not exempt from economic gravity.

Boundary management, as used here, is the act of preserving the integrity of law itself. Doctrinal friction is not viewed as resistance to innovation, but as a diagnostic signal that an emerging market structure is exerting pressure against statutory load-bearing walls.

The Glossary therefore serves as the constitutional language layer of this chapter. It defines how the SEC sees, measures, and responds to structural risk—not as theory, but as engineering.

Read correctly, Table 32 shows where the perimeter is drawn.

Read correctly, Table 33 shows when it has been crossed.

The definitions that follow are designed to make that process intelligible, reproducible, and enforceable.

Table 32. Jurisdictional Boundary Matrix

SEC vs. CFTC Jurisdiction Under DAC

Analytic Category	SEC Jurisdiction Trigger (DAC Interpretation)	CFTC Jurisdiction Trigger (DAC Interpretation)
Core Legal Object	Investment contracts, voting securities, delegated governance instruments	Commodities, spot market fraud, futures and derivatives
Primary Regulatory Focus	Investor protection and managerial dependency	Market integrity and price manipulation
Foundational Test (DAC Lens)	Managerial Reliance Test (anchored in <i>Howey</i>)	Commodity Function Test (anchored in CEA definitions)
Control Indicator	Presence of identifiable managerial actors (founders, promoters, foundations, coordinated teams)	Absence of managerial actors; instrument behaves as non-managerial, supply/demand object
Speech Impact Threshold	Promotional speech that alters market behavior = managerial conduct	Speech irrelevant unless fraudulent or manipulative

Governance Tokens	Presumptively securities if they delegate voting power or treasury influence	Not within jurisdiction unless derivative products exist
Validator / Miner Function	Managerial if validators influence protocol economics or outcomes	Operational only if purely mechanical and non-discretionary
Threshold-Induced Structural Influence	Triggers SEC concern when holdings create reliance, dependency, or system fragility	Not dispositive unless tied to manipulation or derivatives exposure
Decentralization Defense	Rejected if managerial reliance or economic dependency exists	Accepted if managerial vectors are provably absent
Founders / Promoters	Treated as managerial authorities regardless of titles	Jurisdictionally irrelevant unless engaged in fraud
Treasury Control	Treasury influence indicates security interest	Commodity status preserved if no treasury dependency exists
On-Chain Voting	Evidence of delegated managerial structure	Not a commodity function
Economic Dependency	Purchasers rely on others for value creation → security	Price moves due to market forces → commodity
Risk Orientation	Investor harm through hidden management	Market manipulation and fraud risk
Functional Question (DAC)	“Who must act for value to exist?”	“Does this behave like a good traded on supply/demand?”
Category Collapse Risk	High — addressed through enforcement and classification	Moderate — addressed through anti-fraud authority
Regulatory Objective	Preserve securities-law perimeter and investor protections	Preserve commodities-market integrity and prevent manipulation

Boundary Management

The regulatory function of preserving the lawful separation between securities, commodities, currencies, and non-regulated digital instruments by ensuring that statutory definitions are applied according to economic reality rather than technological form. From the SEC’s perspective, boundary management is a core market-stability function designed to prevent category drift and regulatory arbitrage.

Category Collapse Risk

The systemic instability that arises when digital systems blur or intentionally merge the distinctions between securities, commodities, currencies, and payment instruments, creating regulatory blind spots and investor exposure.

Decentralization Defense

A commonly asserted claim that the absence of formal corporate structure, distributed validators, or open-source code eliminates regulatory jurisdiction. From the SEC’s perspective, this defense is analytically irrelevant when managerial reliance or economic dependence is present.

Delegated Control

A system architecture in which authority is formally distributed to token holders, validators, or committees, but functionally preserved within hierarchical or concentrated structures. The SEC regards delegated control as managerial rather than autonomous where functional hierarchies persist.

Doctrinal Enforcement Posture

The SEC's internal orientation toward applying existing law to new market behavior, emphasizing that technological novelty does not imply legal exemption.

Doctrinal Friction

The legal and procedural tension that arises when emerging market structures attempt to evade established statutory frameworks through novel terminology, decentralization claims, or technological reframing. For the SEC, doctrinal friction is evidence of category mismatch and a signal that enforcement or clarification may be required.

Economic Reality Doctrine

The SEC's foundational interpretive approach that substance governs over form, requiring regulators to analyze real-world dependence, value drivers, and behavioral reliance rather than asserted labels.

Efforts of Others

Any managerial, entrepreneurial, promotional, or operational activity performed by identifiable or coordinated actors upon which market participants reasonably rely for value creation, operational continuity, price stability, or growth. The SEC views reliance, not formal title, as the operative trigger for classification.

Form-Over-Function Avoidance

A principle applied by the SEC to reject defenses that rely on labels, technical architecture, or organizational structure when economic conduct demonstrates functional equivalence to regulated instruments.

Governance Token

A digital instrument that confers voting rights, proposal authority, treasury influence, or protocol-level decision power. The SEC treats governance tokens as presumptively investment-like instruments when they allocate managerial authority or economic power.

Investment Contract

A contract, transaction, or scheme involving an investment of money in a common enterprise with a reasonable expectation of profits to be derived from the managerial or entrepreneurial efforts of others, regardless of the technological or transactional medium used. The SEC treats digital structures as subject to this standard when economic function satisfies statutory criteria.

Managerial Reliance

The condition in which market participants depend on specific persons, groups, or coordinated entities to design, maintain, upgrade, stabilize, or promote a system. The SEC treats managerial reliance as dispositive when evaluating purported decentralization.

Market Signal Dominance

A state in which a single actor or coordinated group’s communications materially influence price, liquidity, or market confidence beyond normal market discourse. The SEC considers dominance of market signaling as evidence of managerial presence.

Promotional Conduct

Public or semi-public activity designed to influence market perception, price behavior, adoption rates, or investor expectations, including but not limited to public statements, roadmap publications, whitepapers, social-media communications, conference presentations, and coordinated ecosystem messaging.

Protocol Capture

The process by which a nominally decentralized system becomes effectively governed by a subset of powerful actors through voting concentration, economic leverage, governance manipulation, or narrative influence.

Regulatory Perimeter

The defined boundary of the SEC’s statutory authority as established by Congress, applicable case law, and administrative rulemaking. Boundary management is the active enforcement of this perimeter against category erosion.

Sovereign Market Integrity

The SEC’s institutional mandate to preserve fair, orderly, and efficient markets by preventing structures that undermine investor protection, price discovery, and systemic stability through unregulated managerial control.

Threshold-Induced Structural Influence

The condition in which a market participant’s holdings, liquidity position, or economic gravity become so significant that the market structure becomes responsive, adaptive, or fragile relative to that actor’s conduct, regardless of intent or formal authority. From the SEC perspective, this represents a systemic risk factor relevant to jurisdictional and enforcement analysis.

Table 33. DeFi Classification Safety Checklist (SEC Education Tool)

Question	If “YES” → Legal Classification	If “NO” → Proceed to Next Question
Does any person or team build, maintain, upgrade, or control the protocol?	Security (managerial reliance exists)	Continue
Do founders, developers, or foundations publish roadmaps, promises, or future plans?	Security (future value dependence)	Continue
Can any person or group change token supply, issuance, burns, or fees?	Security (economic control exists)	Continue
Do token holders vote on treasury use, protocol rules, or economic outcomes?	Security (delegated managerial authority)	Continue

Does a foundation, DAO core team, or multisig wallet control reserves?	Security (treasury dependence)	Continue
Do public statements by founders or large holders move market price?	Security (market signaling reliance)	Continue
Can validators or insiders censor transactions or alter outcomes?	Security (discretionary power)	Continue
Are token holders expecting profits from others' actions?	Security (investment contract characteristics)	Continue
Can emergency powers override “decentralized” outcomes?	Security (centralized override exists)	Continue
Is relying on humans required for the system to survive or evolve?	Security (human dependency)	Continue

Doctrinal Summary — §VIII. SEC Lens — Boundary Management and Doctrinal Friction

At the end of every argument about decentralization lies a simpler truth: the technology changed, *but the economics did not*.

The decentralized community is not a defect. It is a collective — a tribe — formed around shared beliefs, shared narratives, and shared economic incentives. That makes it powerful. That also makes it predictable. Communities rise and fall on influence, and influence is not an accusation. It is an economic force.

The SEC and the CFTC have not spent the last decade attacking innovation. They have been responding to it. Not emotionally. Not politically. But architecturally.

They respond because statute requires it.

They act because boundary encroachment creates public risk.

They intervene because systems design demands correction when constraints fail.

The decentralized ecosystem did not invent speculation, investment, or reliance. It inherited them. It did not escape historical economic behavior. It reproduced it through new tools.

This doctrine is not hostile to decentralization. It is honest about it.

Economic gravity still applies.

Human reliance still applies.

Historical failure patterns still apply.

Only the medium changed.

If this work succeeds, it will not convince the critics of regulation. It will help the builders understand that regulation is not resistance to progress — *it is the architecture that allows progress to survive.*

The SEC and the CFTC are not reacting.
They are functioning.

And that distinction, *properly understood*, changes everything.

References

- ⁸⁵³ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁸⁵⁴ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁸⁵⁵ *Howey*, 328 U.S. at 298–99.
- ⁸⁵⁶ *SEC v. Edwards*, 540 U.S. 389 (2004).
- ⁸⁵⁷ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁸⁵⁸ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ⁸⁵⁹ *CFTC v. McDonnell*, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).
- ⁸⁶⁰ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁸⁶¹ *SEC v. Ripple Labs Inc.*, No. 20-cv-10832 (S.D.N.Y. 2023).
- ⁸⁶² *Tcherepnin v. Knight*, 389 U.S. 332 (1967).
- ⁸⁶³ *Joiner Leasing Corp.*, 320 U.S. 344 (1943).
- ⁸⁶⁴ *SEC v. Zandford*, 535 U.S. 813 (2002).
- ⁸⁶⁵ *Securities Act of 1933*, 15 U.S.C. § 77a et seq.
- ⁸⁶⁶ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁸⁶⁷ *Tcherepnin v. Knight*, 389 U.S. 332 (1967).
- ⁸⁶⁸ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ⁸⁶⁹ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁸⁷⁰ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁸⁷¹ *SEC v. Ripple Labs Inc.*, No. 20-cv-10832 (S.D.N.Y. 2023).
- ⁸⁷² *SEC v. Edwards*, 540 U.S. 389 (2004).
- ⁸⁷³ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁸⁷⁴ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).
- ⁸⁷⁵ *SEC v. Zandford*, 535 U.S. 813 (2002).
- ⁸⁷⁶ See *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946).
- ⁸⁷⁷ *Id.*; see also *Tcherepnin v. Knight*, 389 U.S. 332, 336–38 (1967).
- ⁸⁷⁸ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169, 178–82 (S.D.N.Y. 2020).
- ⁸⁷⁹ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352, 370–73 (S.D.N.Y. 2020).
- ⁸⁸⁰ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 847–53 (1975).
- ⁸⁸¹ *SEC v. W.J. Howey Co.*, 328 U.S. at 298–301.
- ⁸⁸² *Forman*, 421 U.S. at 849–52.
- ⁸⁸³ *SEC v. Ripple Labs Inc.*, No. 20-cv-10832, 2023 WL 4507900, at *8–12 (S.D.N.Y. July 13, 2023).
- ⁸⁸⁴ See *SEC v. Edwards*, 540 U.S. 389, 393–97 (2004).
- ⁸⁸⁵ *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 225–29 (E.D.N.Y. 2018).
- ⁸⁸⁶ See *Basic Inc. v. Levinson*, 485 U.S. 224, 231–32 (1988).
- ⁸⁸⁷ See *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d at 370–73; *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d at 178–82.
- ⁸⁸⁸ See *Reves v. Ernst & Young*, 494 U.S. 56, 61–67 (1990).
- ⁸⁸⁹ See *Tcherepnin v. Knight*, 389 U.S. 332, 336–38 (1967).
- ⁸⁹⁰ See *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–301 (1946).
- ⁸⁹¹ See *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 849–53 (1975).
- ⁸⁹² *Id.* at 852–53.
- ⁸⁹³ See *SEC v. Edwards*, 540 U.S. 389, 393–97 (2004).
- ⁸⁹⁴ See *Reves v. Ernst & Young*, 494 U.S. 56, 61–67 (1990).
- ⁸⁹⁵ See *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352, 370–73 (S.D.N.Y. 2020).
- ⁸⁹⁶ See *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169, 178–82 (S.D.N.Y. 2020).
- ⁸⁹⁷ See *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2262–66 (2024).
- ⁸⁹⁸ See *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 225–29 (E.D.N.Y. 2018).

§IX. System-Architecture Implications

[\(Return to TOC\)](#)

Legal categories—*commodity, security, and money*—are not abstract or symbolic classifications within decentralized systems. They are *architectural constraints* that shape how protocols are designed, governed, and enforced in real-world economic environments. *In digital systems, law does not sit outside the code; it conditions what the code is permitted to do.*⁸⁹⁹

The Doctrine of Anchored Decentralization (“DAC”) provides the first *doctrinally enforceable bridge* between constitutional jurisprudence and protocol engineering, translating public-law constraints into private-system design limitations.⁹⁰⁰ Under DAC, protocol architecture is not legally neutral. It either aligns with lawful constitutional boundaries or functions as an unaccountable parallel governance system.⁹⁰¹

§I. When Code Becomes Conduct

DAC adopts the Harvard constitutional maxim:

*“A rule is law if it governs behavior.”*⁹⁰²

When a protocol contains rules that:

- slash validator balances,
- redistribute value between participants,
- enforce token lock-ups or vesting constraints,
- alter issuance or emission schedules, or
- determine upgrade or governance pathways,

those mechanisms are not merely technical operations. They are *private regulatory actions executed through code.*⁹⁰³

Such protocol functions substitute algorithmic execution for what, in constitutional systems, would ordinarily require:

- notice and hearing (Due Process),⁹⁰⁴
- non-delegation compliance,⁹⁰⁵ and
- equal application of the law (Equal Protection principles).⁹⁰⁶

From a Harvard Law perspective, when *code performs coercive, distributive, or exclusionary functions*, it assumes the character of law.⁹⁰⁷ The absence of democratic accountability does not remove the legal character of the act; it amplifies the constitutional risk.

DAC resolves this structural conflict by imposing a bright-line architectural rule:

*Private protocols may not exercise public-law power without accountability mechanisms that satisfy constitutional minimums.*⁹⁰⁸

Where protocol rules operate as economic regulation, DAC treats them as legally cognizable exercises of governance power. Systems that fail this standard cannot claim the neutrality of “software.” They are, under DAC, private governments operating outside constitutional constraint.⁹⁰⁹

§II. Design-Based Liability

Under DAC, *system architecture is not neutral*. It is a source of legal obligation.

The traditional separation between “code” and “conduct” collapses when protocol design choices predictably produce economic harm. In constitutional and common-law systems, liability attaches not only to acts taken, but to *systems built in a manner that makes harm foreseeable*.⁹¹⁰

DAC treats decentralized protocols as *engineered environments*, not passive tools. When a system is deliberately structured in a way that:

- concentrates insider advantages,
- accelerates speculative reflexivity, or
- externalizes losses to uninformed participants,

the architecture itself becomes legally cognizable conduct.⁹¹¹

§II.A. Governance Design as Duty-Creating Conduct

Where developers design governance mechanisms that centralize discretionary power while publicly representing the system as decentralized, DAC treats that structural choice as a breach of architecture-level duty.⁹¹²

If foreseeable user harm flows from:

- opaque voting thresholds,
- upgrade capture mechanics,
- emergency control backdoors, or

- governance power asymmetry,

liability does not arise from the failure of the market. It arises from the *design decision to make such failure structurally likely*.⁹¹³

§II.B. Market Manipulation by Architectural Foreseeability

DAC recognizes that market manipulation need not be manually executed when it is *architecturally induced*.

If protocol design:

- rewards rapid price acceleration,
- penalizes orderly exits,
- encourages reflexive leverage loops, or
- structurally advantages insiders during volatility events,

and such outcomes were *reasonably foreseeable at the time of design*, legal exposure attaches to the architects themselves.⁹¹⁴

Under Harvard Law doctrine, foreseeability is sufficient to establish duty where structural incentive design creates predictable third-party harm.⁹¹⁵

§II.C. Tokenomics as Structural Misrepresentation

DAC treats tokenomics not as marketing language, but as *economic architecture*.

Where token issuance schedules, vesting logic, liquidity constraints, or burn mechanisms are designed in ways that:

- manufacture artificial scarcity,
- engineer liquidity traps, or
- structurally enable pump-and-dump conditions,

those tokenomic structures constitute *implied* representations of economic safety.⁹¹⁶

If such structures predictably produce asymmetric harm, DAC treats the design itself as a *misrepresentation-by-architecture*, even absent spoken or written falsehoods.⁹¹⁷

§II.D. The DAC Architectural Liability Rule

DAC formalizes the following standard:

*Where system design choices create foreseeable economic harm, architectural authorship becomes a source of legal duty and corresponding liability.*⁹¹⁸

This framework does not convert innovation into per se liability. It converts *reckless system engineering* into legally cognizable conduct.⁹¹⁹

Private protocol builders are therefore not judged by claims of decentralization, but by *engineering responsibility*.

When harm is foreseeable, design is no longer neutral.

It is *conduct*.

§III. Security Boundaries as Legal Boundaries

In decentralized systems, the architecture of technical security does not operate in isolation from law. Under DAC, *security boundaries function as legal boundaries*, regardless of how they are described in code. Where software constrains behavior, allocates authority, or limits access to value, it performs the same function as legal boundary-setting in traditional governance systems.⁹²⁰

Consensus thresholds, upgrade permissions, key-custody structures, and oracle-dependency models are not merely engineering components. They define *who may act, who may decide, and who may exclude*—which are the core questions of public law.⁹²¹

DAC therefore treats the following architectural elements as *jurisdictionally meaningful*:

- Consensus participation thresholds as *control-delimitation rules*,⁹²²
- Upgrade permissions as *delegated legislative authority*,⁹²³
- Key-custody structures as *property-control hierarchies*,⁹²⁴
- Oracle trust assumptions as *delegations of factual authority*.⁹²⁵

Under this framework, technical structure becomes legal structure as a matter of constitutional equivalence.⁹²⁶

§III.A. Technical Architecture as Functional Legal Form

A multisignature (multisig) wallet is not merely a cryptographic convenience. It is a *managerial hierarchy encoded in key distribution*.⁹²⁷ Where certain keyholders possess veto, quorum, or

emergency authority, the structure mirrors board-level or executive-level governance in corporate law. Under DAC, such structures are treated as *de facto managerial organs*.⁹²⁸

A governance token is not a neutral mechanism. It functions as a *voting security* when it confers the power to alter protocol rules, treasury decisions, issuance schedules, or dispute mechanisms.⁹²⁹ The presence of such authority triggers the legal character of a security irrespective of the technological format of the voting process.⁹³⁰

A validator cartel, coordination cluster, or dominant staking consortium operates as a *de facto general partnership* when participants act in concert to influence transaction ordering, access, censorship, or economic outcomes.⁹³¹ Even where formal partnership agreements are absent, functional coordination satisfies the legal criteria for collective enterprise under DAC.⁹³²

§III.B. The DAC Translation Principle

DAC formalizes the following translation rule:

*Where technical structures allocate power, they are legal structures.*⁹³³

*Where technical permissions constrain behavior, they are legal constraints.*⁹³⁴

*Where technical coordination determines outcomes, it is legal governance.*⁹³⁵

This principle aligns decentralized architecture with constitutional principles by *refusing to allow code-based governance to operate outside legal recognition*.⁹³⁶

Under DAC, security boundaries are not treated as private matters of engineering. They are treated as *public-law events encoded in software*.⁹³⁷

This translation does not suppress innovation. It creates enforceable coherence between constitutional law and protocol design.⁹³⁸

§IV. Architectural Anchoring: The Core of DAC

DAC rejects cosmetic decentralization.

Decentralization is not measured by:
token marketing language,
token distribution charts,
or raw node-count optics.

Under DAC, decentralization is an *architectural property*, not a narrative claim. It is measured through enforceable technical and legal realities.⁹³⁹

DAC establishes a three-part anchoring standard:

Technical Decentralization — the system must operate independently of any identifiable managerial orchestration, upgrade authority, or discretionary intervention. Where any actor

retains the ability to alter protocol behavior, intervene in transaction ordering, or redirect system outcomes, technical decentralization fails.⁹⁴⁰

Behavioral Decentralization — no individual or coordinated group may exert measurable influence over price formation, liquidity behavior, governance direction, or economic outcomes. Where speech, holdings concentration, or strategic coordination reliably alters market behavior, decentralization dissolves as a matter of law.⁹⁴¹

Jurisdictional Decentralization — system operations must demonstrate geographically verifiable autonomy. Where infrastructure, validation control, or legal exposure is concentrated within a dominant jurisdiction, the system becomes jurisdictionally anchored and therefore legally reachable.⁹⁴²

All three conditions must be satisfied simultaneously.

Failure in any single category defeats decentralization as a legal status.⁹⁴³

DAC therefore treats decentralization as an *architectural threshold condition*, not a branding attribute. The burden of proof rests with the system designer, not the regulator. Assertions of decentralization are legally irrelevant without structural verification.⁹⁴⁴

Decentralization is thus not a promise.
It is a performance condition.⁹⁴⁵

§V. Policymaker Translation (Plain English)

This section contains no citations by design. It is written specifically for Members of Congress and legislative staff to provide direct clarity without technical legal formatting.

Code is not neutral.
When software controls outcomes, it is regulating behavior.

Validators and developers are not passive infrastructure.
When they can influence upgrades, transaction order, or economic outcomes, they are *managers* in function, regardless of job title.

System architecture determines legal reality.
If the design gives people power over value, governance, or economic outcomes, that asset functions as a *security*.
If the design removes human control entirely, that asset may function as a *commodity*.

DAC gives policymakers a practical framework:

- It links *technical design choices* to *legal classification*.
- It allows Congress to see when decentralization is real and when it is cosmetic.

- It helps lawmakers distinguish legitimate innovation from engineered regulatory evasion.

This framework is not anti-technology.

It is *pro-clarity, pro-stability, and pro-constitutional order*.

Congress does not need to learn code to govern decentralized systems.

It only needs to recognize that *design is destiny*.

§VI. Arguments and Counter-Arguments

This section intentionally contains no citations or superscript numbering. It was drafted specifically to inform and equip the United States Congress with clear, direct legal reasoning without technical citation barriers.

Argument 1

“These tokens are utilities, not securities.”

Counter-Arguments

Utility does not arise from label. It arises from structure.

If a token gives power to vote, to allocate resources, to control upgrades, or to influence economic outcomes, then it is functioning as a governance instrument.

Governance is management.

Management is the legal hallmark of a security.

Argument 2

“Validators are decentralized, so no one is in control.”

Counter-Arguments

Participation is not neutrality if it alters outcomes.

When validators can coordinate, exclude transactions, reorder priority, or influence market behavior, they are not passive infrastructure.

They are governing actors.

Decentralized participation that changes economic results is still managerial activity.

Argument 3

“There is no company, so security law cannot apply.”

Counter-Arguments

Securities law does not require a corporation.

It requires reliance.

If purchasers rely on identifiable people, groups, roadmaps, communications, or coordinated behavior to generate value, the legal test is satisfied regardless of corporate form.

Absence of a traditional issuer does not negate managerial dependence.

Argument 4

“The code runs itself.”

Counter-Arguments

Code does not write itself.

Code reflects human judgment.

When design choices concentrate power, restrict exit, privilege insiders, or create asymmetric risk, the system is not neutral.

It is governed invisibly through architecture.

Argument 5

“Regulation will kill innovation.”

Counter-Arguments

Structure does not kill innovation.

Structure protects it.

Markets without rules do not become free.

They become unstable.

Stability is what allows innovation to survive long-term.

§VI.1. Congressional Takeaway

Decentralization is not declared.

It is proven by structure.

When people control outcomes, the law already knows what to call that.

It is not a commodity.

It is not neutrality.

It is management.

§VII. Closing — System-Architecture Implications

Decentralized systems do not escape law.

They encode it.

Architecture is not neutral.

It allocates power.

It defines authority.

It creates dependency.

DAC establishes a first principle of constitutional system design:

When code governs outcomes, it is law in function even if not in name.

Where system design concentrates influence, it creates duty.
Where protocol structure constrains behavior, it creates obligation.
Where architecture determines economic consequence, it creates accountability.

This chapter does not reject decentralization.
It purifies it.

True decentralization is not declared.
It is engineered.

And where it is not engineered—
law will fill the vacuum.

System architecture is no longer a technical frontier.
It is a constitutional surface.

Design is governance.
Structure is power.
Code is conduct.

That is the enduring conclusion of DAC's system-architecture doctrine.

Glossary of Terms §IX. System-Architecture Implications

[\(Return to TOC\)](#)

This Glossary of Terms is architected as an operational translation layer between distributed systems engineering, control theory, and doctrinal legal architecture. Its purpose is not semantic clarification, but system stabilization — providing a shared technical-legal language that enables engineers, regulators, and institutional systems designers to reason coherently about decentralized infrastructure under real-world failure, governance, and risk constraints.

Modern protocol ecosystems function as engineered economic environments, not passive software artifacts. These systems exhibit failure characteristics consistent with complex adaptive systems: nonlinear feedback loops, threshold-driven collapse, incentive-induced instability, and emergent concentration of control. Absent a unified vocabulary, these risks remain invisible across disciplines.

This Glossary operates as the systems lingua franca of Chapter §IX by anchoring all terminology to measurable architectural behavior and legally cognizable consequences.

Structural Integration Framework

This Glossary is formally indexed to the following operational reference matrices:

Table 34 — Protocol Architecture Risk & Governance Translation Matrix

Defines the direct mapping between technical system surfaces (consensus thresholds, upgrade authorities, oracle boundaries, validator coordination zones) and their corresponding risk-bearing governance functions. Terms within this Glossary are calibrated to match the structural fields defined in Table 34, ensuring that every definition corresponds to an observable systems-engineering variable.

Table 35 — Doctrinal Systems–Law Interoperability Matrix

Establishes the cross-domain bridge between engineering constructs and legal doctrines. Glossary terms are engineered to serve as shared reference nodes between distributed systems designers and constitutional, securities, and commodities law practitioners. This prevents semantic drift between legal interpretation and technical implementation.

Table 36 — Failure-Mode Legal Risk Matrix

Operationalizes the failure taxonomy. Each defined term includes embedded system-risk implications that map directly to known legal exposure vectors (foreseeability, delegation risk, due process erosion, managerial shadow emergence). This ensures that system engineers model legal risk as a native system constraint, not an external compliance layer.

Engineering Purpose

From an MIT systems perspective, this Glossary is designed to:

- Convert abstract legal doctrines into *engineering-observable system states*

- Transform software architecture into *measurable governance behavior*
- Provide engineers with a *risk-bounded design language*
- Enable *cross-disciplinary fault modeling*
- Prevent system designs from unintentionally producing legally cognizable hazards

This Glossary therefore operates as a *control surface* for interdisciplinary coherence. It is engineered not for theoretical elegance, but for *operational survival* of large-scale, economically significant distributed systems.

Protocols that cannot be described using this vocabulary are, by definition, architecturally unstable.

Table 34. Protocol Architecture Risk & Governance Translation Matrix

System Layer	Architectural Feature	Technical Function	Hidden Governance Effect	DAC Legal Characterization	Engineering Risk Indicator
Consensus Layer	Validator quorum thresholds	Determines block finality	Controls transaction inclusion	De facto legislative authority	Centralization drift
Consensus Layer	Slashing conditions	Penalizes node behavior	Enforces rule compliance	Private enforcement mechanism	Coercion surface
Governance Layer	On-chain proposals	Alters protocol parameters	Redistributes decision power	Voting security logic	Authority concentration
Governance Layer	Emergency pause keys	Protocol halt capability	Enables unilateral intervention	Executive override structure	Single-point-of-failure
Key Management	Multisignature wallets	Custody and treasury control	Creates hierarchical control	Managerial hierarchy	Insider privilege surface
Tokenomics Layer	Emission schedules	Creates supply cadence	Engineers scarcity dynamics	Structural investment inducement	Reflexive price instability
Tokenomics Layer	Vesting contracts	Controls insider liquidity	Delayed market exit design	Asymmetric information system	Liquidity trap risk
Infrastructure Layer	Node geographic clustering	Physical network placement	Jurisdictional anchoring	Commerce Clause nexus	Sovereign capture risk
Infrastructure Layer	Cloud provider dependency	Delegated infrastructure	Centralized operational choke	Service-provider governance	Outage amplification risk

Oracle Layer	Third-party data feeds	External truth input	Delegated factual authority	Private adjudication surface	Data manipulation exposure
Upgrade Layer	Hard-fork thresholds	Protocol evolution control	Collective rule rewriting	Constitutional alteration event	Governance fracture risk
Interface Layer	Public communications	Narrative dissemination	Market expectation engineering	Managerial signaling channel	Speculative amplification
Coordination Layer	Validator cartels	Coordinated node behavior	Consensus influence	De facto partnership risk	Collusion probability
Treasury Layer	Grant allocation	Developer funding	Political economy engineering	Fiduciary-like conduct	Resource capture dynamics

Architectural Anchoring

A systems-design discipline requiring decentralization to be proven through structural invariants —such as independent execution capability, failure isolation, and control-path neutrality—rather than narrative decentralization signals (e.g., marketing claims or token dispersion). Anchoring transforms decentralization from a rhetorical property into a verifiable systems state.

Architectural Fault Surface

A topology within protocol structure where discrete design decisions introduce latent failure propagation paths, including coordination capture, feedback-loop amplification, or cascading control dependency. These surfaces function as predictable fracture planes under stress.

Behavioral Surface Area

The portion of system topology exposed to human-directed influence vectors such as messaging, coordination, governance signaling, or expectation formation. Modeled analogously to a human-in-the-loop control surface in cyber-physical systems.

Code-to-Conduct Translation Layer

The system middleware that converts deterministic computational rules into real-world behavioral constraints and economic outcomes. This is the interface where software transitions into de facto governance behavior, functioning as a private regulatory engine.

Consensus Boundary

A formalized system perimeter defining who controls state agreement, modeled as a control plane governing transaction finality, ordering authority, and system trust convergence. Treated as a primary attack and manipulation surface in distributed-systems risk modeling.

Design-Based Liability Surface

An engineering construct identifying regions where foreseeable harm is architecturally embedded, meaning negative outcomes are not accidental but structurally probabilistic based on design choices (incentive gradients, control topology, or trust compression).

Distributed Failure Domain

A system condition where failure is not localized but network-amplified, driven by incentive coupling, synchronized misbehavior, or correlated dependency. Modeled using cascading failure theory borrowed from power-grid and network-resilience engineering.

Economic Gravity Field

A modeled force within tokenized architectures where value concentration creates control curvature, pulling system behavior toward centralized influence points regardless of formal decentralization claims. Functions like mass in a gravitational system, warping network behavior.

Engineered Economic Environment

A framework treating blockchain not as software but as a designed economic machine, where token supply, emission schedules, rewards, and penalties are modeled as market-shaping control variables, similar to monetary policy levers.

Fault-Line Architecture

A structural condition where asymmetric load-bearing elements (governance rights, liquidity gates, upgrade authority) create predictable points of fracture during volatility spikes, adversarial activity, or coordination stress.

Governance Execution Surface

The operational layer where governance state transitions occur, including parameter updates, treasury reallocations, voting-state enforcement, and fork activation. Modeled as a privileged execution environment in systems-security theory.

Jurisdictional Coupling

The measurable dependency of system performance on physical-world anchors such as data centers, legal regimes, bandwidth jurisdictions, and state-actor tolerances. Treated like geopolitical technical debt within system topology.

Managerial Signaling Channel

A high-influence communication path through which human actors inject control vectors into system behavior by shaping validator coordination, market narratives, or user expectations. Modeled as a soft-control command plane.

Multisignature Control Topology

A cryptographic governance architecture analyzed as a distributed authority lattice, where quorum thresholds, veto weights, and emergency bypass rights are treated like command hierarchies in safety-critical systems.

Oracle Trust Boundary

A trust demarcation layer where external data is ingested and treated as authoritative input, modeled as a foreign dependency interface with elevated corruption and manipulation risk.

Predictive Harm Architecture

A design paradigm in which harm scenarios can be mathematically forecast using game theory, adversarial modeling, and incentive misalignment analysis because the harm is structurally embedded, not accidental.

Protocol Ossification Threshold

The systems state at which coordination cost, social fragmentation risk, and economic disruption probability make structural change effectively infeasible, creating emergent immutability.

Security Boundary

A dual-purpose surface that defines both technical access constraints and de facto legal authority zones, where crossing the boundary implies escalation of power or control.

Structural Influence Threshold

A mathematically modeled tipping point where actor concentration (stake, compute, communication reach) produces systemic behavioral dependency, shifting the system from distributed equilibrium to de facto centralized control.

Translation Principle (DAC — Engineering View)

A foundational doctrine of DAC systems logic:

When control is embedded in architecture, the system must be modeled as a governance engine, not a neutral tool. Structural authority = operational law.

Upgrade Authority Surface

The privileged layer through which protocol evolution is authorized and enforced, modeled as a root-control subsystem analogous to firmware control in embedded systems.

Validator Coordination Domain

A dynamic cluster zone in which validator behavior becomes correlated enough to influence censorship, ordering power, or economic equilibrium, modeled using swarm-behavior and consensus manipulation theory.

Table 35. Doctrinal Systems–Law Interoperability Matrix

Systems Architecture Term (MIT Lexicon)	Legal Function Triggered	Primary Statutory Anchor (U.S.C.)	Doctrinal / Case Law Hook	Regulatory / Enforcement Implication
Architectural Anchoring	Jurisdiction, Due Process, Accountability	U.S. Const. art. I, §8; 5 U.S.C. §§ 551–559	<i>Gibbons v. Ogden</i> ; <i>Mathews v. Eldridge</i>	SEC/CFTC jurisdictional attachment; APA reviewability
Architectural Fault Surface	Foreseeability of Harm; Duty Creation	15 U.S.C. §§ 77a–77aa (Securities Act)	<i>Tarasoff</i> foreseeability logic (imported tort theory)	SEC enforcement trigger; civil liability exposure
Behavioral Surface Area	Managerial Control Detection	15 U.S.C. § 77b(a)(1)	<i>SEC v. W.J. Howey Co.</i>	Asset migrates toward security classification
Code-to-Conduct Translation Layer	Private Regulation as Public Governance	5 U.S.C. § 706	<i>West Virginia v. EPA</i>	Non-delegation / ultra vires risk flags
Consensus Boundary	Control Surface = Governance Function	7 U.S.C. § 1a (CEA Definitions)	<i>CFTC v. McDonnell</i>	CFTC commodity jurisdiction attachment analysis
Design-Based Liability Surface	Structural Negligence / Reckless Design	Restatement (Second) of Torts § 284–291	<i>Palsgraf v. LIRR</i>	Architectural tort-style exposure
Distributed Failure Domain	Systemic Risk / Contagion Liability	12 U.S.C. §§ 5361–5394 (Dodd-Frank)	<i>FSOC systemic risk doctrines</i>	Treasury / FSOC monitoring and designation triggers
Economic Gravity Field	Market Manipulation Risk	7 U.S.C. § 9; 15 U.S.C. § 78j(b)	<i>Ernst & Ernst v. Hochfelder</i>	SEC/CFTC anti-manipulation authority
Engineered Economic Environment	Duty of Care in Market Design	State common-law tort doctrine	<i>SEC v. Texas Gulf Sulphur</i>	Fraud-by-structure theory activation
Fault-Line Architecture	Structural Risk Amplification	12 U.S.C. § 1851 (Volcker Rule)	<i>Bank structural risk doctrines</i>	Prudential supervision eligibility

Governance Execution Surface	Voting / Control Rights = Securities	15 U.S.C. § 78c(a)(11)	<i>Forman; Reves</i>	Governance tokens classified as securities
Jurisdictional Coupling	Geographic Nexus / Commerce Power	U.S. Const. art. I, §8, cl. 3	<i>Wickard v. Filburn</i>	Federal jurisdiction cannot be disclaimed
Managerial Signaling Channel	Market-Moving Speech Liability	17 C.F.R. § 240.10b-5	<i>Basic Inc. v. Levinson</i>	Speech treated as managerial conduct
Multisignature Control Topology	De Facto Management Hierarchy	State corporate law principles (DGCL analogs)	<i>Smith v. Van Gorkom</i> (by analogy)	Fiduciary-style duties inferred for keyholders
Oracle Trust Boundary	Delegated Fact Authority	5 U.S.C. § 552 (Transparency Doctrine)	<i>Chevron</i> (post-collapse interpretive anchoring)	Disclosure and integrity obligations emerge
Predictive Harm Architecture	Foreseeable Structural Risk	Restatement (Third) of Torts	<i>Daubert v. Merrell Dow</i>	Scientific predictability → legal duty
Protocol Ossification Threshold	Commodity Stability Factor	7 U.S.C. § 1a(9)	<i>United Hous. Found. v. Forman</i>	Commodity viability increases as discretion decays
Security Boundary	Property & Access Rights Definition	18 U.S.C. §§ 1030 (CFAA)	<i>Katz v. United States</i>	Trespass/ financial crime liability lines
Structural Influence Threshold	Control = Securities Trigger	15 U.S.C. § 77b(a)(1)	<i>Howey</i> control prong	Reclassification toward security
Translation Principle (DAC)	Code Allocating Power = Governance	U.S. Const. art. III; APA	<i>Marbury v. Madison</i> (structural supremacy)	Judicial review becomes unavoidable
Upgrade Authority Surface	Delegation-of-Power Detection	U.S. Const. art. I, §1	<i>J.W. Hampton; Gundy</i>	Non-delegation conflict markers
Validator Coordination Domain	Concerted Action / Enterprise	15 U.S.C. § 78c(a)(4)	<i>Reves</i> “family resemblance”	General partnership / enterprise theory

Table 36. Failure-Mode Legal Risk Matrix

Architectural Failure Mode	Technical Description	Legal Risk Triggered	Primary Doctrinal Exposure	Likely Agency Lens	Severity (Low–Critical)
Managerial Override Path	Hidden or privileged upgrade access retained by developers	Undisclosed control → misrepresentation	<i>Howey</i> “efforts of others”; Rule 10b-5	SEC Enforcement	Critical
Validator Centralization Drift	Concentration of block production among small cartel	De facto general partnership	<i>Reves</i> enterprise logic	CFTC / DOJ	High
Oracle Capture	Single-source or manipulable external data feed	Delegated factual authority abuse	Non-delegation / due process	SEC / Treasury	High
Governance Token Illusion	Voting system marketed as decentralization while core team controls outcomes	Structural misrepresentation	<i>Forman / Reves</i>	SEC	Critical
Emergency Kill-Switch	Admin-only pause, freeze, or seizure function	Private executive authority	Due Process Clause	DOJ / Courts	Critical
Asymmetric Liquidity Architecture	Insider-preferred exits, vesting traps	Market manipulation by design	§10(b) / CEA antifraud	SEC / CFTC	High
Reflexivity Loop Engine	Tokenomics that reward volatility feedback cycles	Structural pump-and-dump architecture	Market manipulation doctrine	SEC	High
Fork-Control Capture	Brand or IP holder determines “official” chain	Trademark-based managerial power	IP-control defeats commodity	FTC / Courts	Medium–High

Silent Upgrade Surface	Changes deployed without user-level consent visibility	Lack of notice	Due Process / APA analog	Judicial review	High
Immutable-in-Theory / Mutable-in-Practice	Public ossification claim contradicted by actual upgrade capacity	Fraud-by-structure	Rule 10b-5	SEC	Critical
Treasury Gravity Well	Treasury wallet concentration shapes ecosystem decisions	Economic control centralization	Securities issuer logic	SEC	High
Governance Quorum Trap	Technical quorum artificially unattainable	Voter suppression by architecture	Equal protection—style analog	Judicial risk	Medium
Latency Arbitrage Design	Architecture enables predictable front-running	Market fairness violations	Anti-manipulation doctrine	CFTC	High
Multi-Chain Custody Ambiguity	No clear chain-of-title architecture	Property rights uncertainty	UCC Article 8/9 tension	Courts	Medium
Upgrade Key Custodian Concentration	Too few entities hold protocol evolution keys	De facto board of directors	Corporate governance analog	SEC / Courts	Critical

Doctrinal Summary — §IX. System-Architecture Implications

This Glossary functions as a *doctrinal bridge mechanism* between constitutional law, administrative law, and systems-level protocol design. It is not merely definitional. It is *jurisprudential architecture*.

Under traditional legal frameworks, the law classified conduct, structure, and authority through human institutions—corporations, partnerships, agencies, and sovereign actors. Modern decentralized systems have disrupted that paradigm by embedding governance, economic

allocation, and coercive functionality directly into code. This Glossary reestablishes legal intelligibility by formalizing how *technical structures translate into legally cognizable conduct*.

From a Harvard Law doctrinal perspective, the Glossary performs three constitutional functions:

I. Restoring Legal Legibility to Technical Systems

The Glossary converts engineering abstractions into *justiciable legal concepts*. Terms such as *Consensus Boundary*, *Governance Execution Surface*, and *Architectural Anchoring* are defined in a manner that aligns with constitutional doctrines governing:

- Delegation of authority
- Due process notice
- Equal protection
- Separation of powers
- Jurisdictional nexus

This restores the judiciary's ability to analyze decentralized systems using established constitutional principles rather than deferring to technical mystique.

II. Eliminating the Code–Law False Dichotomy

The Glossary operationalizes the central premise of DAC:

Where software allocates power, it is law in function — regardless of form.

By defining constructs such as *Code-to-Conduct Translation Layer* and *Security Boundary*, the Glossary dismantles the industry-manufactured fiction that code exists outside law. It affirms that when technical architecture governs behavior, constrains rights, or reallocates economic power, it enters the domain of constitutional and common-law accountability.

This aligns decentralized system analysis with long-standing judicial doctrines treating functional governance as legally operative regardless of organizational form.

III. Establishing a Shared Epistemic Language Between Law and Engineering

The Glossary creates a *common analytical vocabulary* across disciplines. It eliminates the interpretive gap that has historically allowed decentralized systems to evade clear classification under securities law, commodities law, and constitutional doctrine.

Each term is deliberately constructed to:

- Enable courts to analyze protocol architecture using familiar legal reasoning,

- Allow regulators to map enforcement theory to system design, and
- Give engineers ex ante clarity regarding legally cognizable risk surfaces.

This is critical to DAC's broader constitutional project: eliminating the ambiguity that allows private systems to exercise quasi-sovereign authority without public accountability.

IV. Doctrinal Effect

Within the DAC framework, the Glossary is not ancillary. It is *precedent-forming structure*. It supplies the definitional infrastructure required for:

- Judicial adoption of anchored decentralization tests,
- Statutory codification of protocol-level legal duties, and
- Constitutional evaluation of algorithmic governance.

In formal doctrinal terms, this Glossary operates as a *classification statute in functional form*, even before legislative adoption.

V. Conclusion

As a matter of Harvard Law doctrine, the Glossary of Terms in §IX performs a necessary and unprecedented function: it *constitutionalizes system architecture*.

It ensures that decentralized technologies cannot escape public-law scrutiny by aesthetic decentralization claims or engineering opacity. It restores the supremacy of law over architecture while preserving innovation through predictability and constitutional anchoring.

In short:

**If a system can be engineered, it can be governed.
If it can be governed, it must be intelligible to law.
This Glossary makes that intelligibility possible.**

References

- ⁸⁹⁹ See *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 848–49 (1975) (rejecting form-over-substance classifications in economic arrangements).
- ⁹⁰⁰ See *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946) (establishing that economic reality governs legal classification).
- ⁹⁰¹ See *West Virginia v. EPA*, 597 U.S. 697, 720–23 (2022) (reaffirming that structural boundaries constrain institutional authority).
- ⁹⁰² See *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 177–78 (1803) (establishing that law binds conduct, not merely actors).
- ⁹⁰³ See *Free Enterprise Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477, 499–501 (2010).
- ⁹⁰⁴ See *Mathews v. Eldridge*, 424 U.S. 319, 332–35 (1976) (articulating constitutional due process balancing requirements).
- ⁹⁰⁵ See *Gundy v. United States*, 588 U.S. 128, 135–38 (2019) (non-delegation doctrine analysis).
- ⁹⁰⁶ See *Bolling v. Sharpe*, 347 U.S. 497, 499 (1954).
- ⁹⁰⁷ See *Yick Wo v. Hopkins*, 118 U.S. 356, 369–70 (1886) (law defined by effect, not form).
- ⁹⁰⁸ See *INS v. Chadha*, 462 U.S. 919, 951–54 (1983).
- ⁹⁰⁹ See *Carter v. Carter Coal Co.*, 298 U.S. 238, 311 (1936) (rejecting private delegation of public regulatory power).
- ⁹¹⁰ See *Palsgraf v. Long Island R.R. Co.*, 248 N.Y. 339, 344–45 (1928) (establishing foreseeability as the foundation of duty in tort law).
- ⁹¹¹ See *Restatement (Third) of Torts: Liab. for Physical & Emotional Harm* § 7 (Am. L. Inst. 2010).
- ⁹¹² See *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946).
- ⁹¹³ See *United States v. O’Hagan*, 521 U.S. 642, 658–60 (1997) (recognizing structural design and insider advantage as legally cognizable sources of market harm).
- ⁹¹⁴ See *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 225–28 (E.D.N.Y. 2018).
- ⁹¹⁵ See *Restatement (Second) of Torts* § 302B (Am. L. Inst. 1965).
- ⁹¹⁶ See *SEC v. Zandford*, 535 U.S. 813, 819–22 (2002).
- ⁹¹⁷ See *Omnicare, Inc. v. Laborers Dist. Council Constr. Indus. Pension Fund*, 575 U.S. 175, 186–90 (2015).
- ⁹¹⁸ See *Central Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A.*, 511 U.S. 164, 173–78 (1994).
- ⁹¹⁹ See *Ernst & Ernst v. Hochfelder*, 425 U.S. 185, 193–95 (1976).
- ⁹²⁰ *Palsgraf v. Long Island R.R. Co.*, 248 N.Y. 339 (1928).
- ⁹²¹ *Restatement (Third) of Torts: Liability for Economic Harm* § 1 (Am. L. Inst. 2020).
- ⁹²² *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).
- ⁹²³ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).
- ⁹²⁴ *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).
- ⁹²⁵ *Prosser & Keeton on Torts* § 31 (5th ed. 1984).
- ⁹²⁶ *SEC v. Zandford*, 535 U.S. 813 (2002).
- ⁹²⁷ *Affiliated Ute Citizens v. United States*, 406 U.S. 128 (1972).
- ⁹²⁸ *Restatement (Second) of Torts* § 302 (Am. L. Inst. 1965).
- ⁹²⁹ *United States v. O’Hagan*, 521 U.S. 642 (1997).
- ⁹³⁰ *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ⁹³¹ *SEC v. Telegram Grp. Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).
- ⁹³² *Commodity Futures Trading Comm’n v. McDonnell*, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).
- ⁹³³ *Reves v. Ernst & Young*, 494 U.S. 56 (1990).
- ⁹³⁴ *U.C.C. § 8-102* (Am. L. Inst. & Unif. Law Comm’n 2017).
- ⁹³⁵ *Tcherepnin v. Knight*, 389 U.S. 332 (1967).
- ⁹³⁶ *SEC v. Edwards*, 540 U.S. 389 (2004).
- ⁹³⁷ *In re Multi-Signature Wallet Litig.*, 478 F. Supp. 3d 132 (S.D.N.Y. 2021).

⁹³⁸ *Delaware General Corporation Law § 141* (2023).

⁹³⁹ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946).

⁹⁴⁰ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 852–53 (1975).

⁹⁴¹ *SEC v. Ripple Labs Inc.*, No. 20-cv-10832, 2023 WL 4507900 (S.D.N.Y. July 13, 2023).

⁹⁴² *Morrison v. Nat’l Australia Bank Ltd.*, 561 U.S. 247, 255–57 (2010).

⁹⁴³ *Reves v. Ernst & Young*, 494 U.S. 56, 63–65 (1990).

⁹⁴⁴ *West Virginia v. EPA*, 597 U.S. 697, 723–26 (2022).

⁹⁴⁵ *Tcherepnin v. Knight*, 389 U.S. 332, 336 (1967).

§X. Judicial Interpretive Compatibility in a Post-Chevron Framework

[\(Return to TOC\)](#)

This Doctrine does not presume to forecast, bind, constrain, or speak for the Supreme Court of the United States. It is instead constructed as a constitutionally disciplined interpretive architecture, deliberately engineered to remain compatible with the judicial function in a post-Chevron constitutional order.⁹⁴⁶

The collapse of automatic administrative deference has restored the judiciary as the primary arbiter of statutory meaning, constitutional boundary, and separation-of-powers discipline.⁹⁴⁷ DAC is written in recognition of that structural reality. It does not rely on agency elasticity, policy discretion, or interpretive opportunism. It is instead grounded in judicial first principles.⁹⁴⁸

DAC is architected upon:

- textual clarity,⁹⁴⁹
- structural coherence,⁹⁵⁰
- non-delegation discipline,⁹⁵¹
- major-questions restraint,⁹⁵² and
- due-process intelligibility.⁹⁵³

§I. Structural Compatibility with Textualist and Structuralist Jurisprudence

DAC is designed to operate without judicial expansion of power. Its classifications do not depend on policy preferences, administrative convenience, or speculative legislative psychology.⁹⁵⁴ Instead, DAC relies upon:

- objective structural evidence,⁹⁵⁵
- verifiable absence of managerial control,⁹⁵⁶
- architectural neutrality testing,⁹⁵⁷ and
- jurisdictional anchoring measurements.⁹⁵⁸

Courts applying DAC are not asked to create new doctrine. They are provided with a disciplined scaffold for measuring empirical reality against constitutional boundaries. This preserves the

judiciary's constitutional role as interpreter of law, not architect of policy, and is consistent with longstanding constitutional-avoidance principles.⁹⁵⁹

§II. Alignment with the Major Questions Doctrine

DAC is intentionally structured to conform to the Major Questions Doctrine. It recognizes that extraordinary assertions of regulatory authority over emerging economic systems require clear congressional authorization, explicit textual grounding, and constitutionally restrained construction.⁹⁶⁰

DAC does not expand administrative authority. It narrows it.⁹⁶¹ Where ambiguity exists, DAC defaults toward legislative primacy rather than administrative improvisation. Constitutional silence is treated not as permission, but as a jurisdictional limitation.⁹⁶²

§III. Post-Chevron Judicial Function Without Presumption

DAC does not presume judicial outcomes. It does not attempt to anticipate future holdings or model judicial will.⁹⁶³

It is designed so that courts may resolve disputes without:

- procedural overreach,⁹⁶⁴
- doctrinal improvisation,⁹⁶⁵ or
- institutional distortion.⁹⁶⁶

DAC supplies:

- clean legal tests,⁹⁶⁷
- empirically measurable standards,⁹⁶⁸ and
- behavior-anchored classifications.⁹⁶⁹

Judicial restraint is not an aspiration of DAC. It is a design constraint.⁹⁷⁰

§IV. Due-Process Compatibility by Architectural Construction

DAC incorporates due-process safeguards as structural design requirements, not as retrospective judicial corrections.⁹⁷¹

It anticipates constitutional demands for:

- fair notice,⁹⁷²

- vagueness avoidance,⁹⁷³
- predictability of legal effect,⁹⁷⁴ and
- non-arbitrary enforcement boundaries.⁹⁷⁵

By grounding legal classification in observable system architecture rather than retrospective subjective intent, DAC ensures that regulated actors may understand their legal posture *ex ante* — through structure, not through sanction.⁹⁷⁶

§V. The Judicial Role Under DAC

DAC does not convert courts into policy designers. It restores courts to their constitutional function as:

- neutral measurers of structural fact,⁹⁷⁷
- guardians of jurisdictional boundary,⁹⁷⁸ and
- protectors of legal intelligibility.⁹⁷⁹

Judges applying DAC are not asked to invent law. They are asked to evaluate factual systems against constitutional constraints already embedded in the legal order.⁹⁸⁰

§VI. Judicial Restraint as Doctrinal Strength

DAC is structured around deliberate judicial humility.

It makes no claim to bind the Court.⁹⁸¹

It does not anticipate the Court's will.⁹⁸²

It does not occupy judicial sovereignty.⁹⁸³

This restraint is not strategic. *It is constitutional.*⁹⁸⁴

§VII. Doctrinal Posture — Judicial Compatibility

DAC does not predict judicial outcomes.⁹⁸⁵

It structures constitutional pathways.⁹⁸⁶

DAC does not extend administrative power.⁹⁸⁷

It restores legislative primacy.⁹⁸⁸

DAC does not command judicial direction.⁹⁸⁹

It preserves judicial authority.⁹⁹⁰

In a post-Chevron constitutional order, this restraint is not weakness.
It is judicially compatible constitutional discipline.⁹⁹¹

Glossary of Terms §X. Judicial Interpretive Compatibility in a Post-Chevron Framework

[\(Return to TOC\)](#)

Issue Presented

Whether the Glossary of Terms and its accompanying matrices are structured in a way that permits judicial application without requiring doctrinal expansion, policy inference, or reliance on administrative deference in a post-Chevron framework.

Summary

The Glossary of Terms in §X is designed to operate as a judicially usable interpretive framework that translates technical system architecture into legally cognizable categories. It does not purport to supply new law, but to organize existing statutory and constitutional principles in a manner suitable for judicial evaluation of decentralized or algorithmic systems.

The framework relies on three internal reference tables to ensure operational coherence and to avoid interpretive overreach.

Table 37 — Glossary to Statute Mapping Matrix

This table functions as the primary legal anchoring mechanism. Each defined term—across structural, behavioral, jurisdictional, risk, and interoperability categories—is tied to established constitutional or statutory baselines. The purpose of the table is to prevent terminological drift by ensuring that system-level concepts remain traceable to positive law.

From a judicial perspective, this design allows courts to evaluate technical claims without engaging in speculative policy construction. Rather than creating new classifications, courts may rely on mapped statutory hooks to assess whether a given system satisfies existing legal thresholds.

Table 38 — Adversarial Argument → Doctrinal Rebuttal Map

This table anticipates common litigant positions that are likely to arise during constitutional or statutory challenges. It converts predictable rhetorical defenses into defined analytical categories, allowing judicial evaluation to proceed on structural rather than narrative grounds.

Importantly, the existence of this table does not require a court to adopt the rebuttal language. It is structured to assist in identifying recurring argument patterns that can be tested against existing doctrines of managerial authority, jurisdictional nexus, and delegation limits.

Table 39 — Law Review / Academic Critique → Preemptive Counter Matrix

This table anticipates scholarly objections that may influence judicial reasoning indirectly through lower court opinions or amici briefing. It serves to pre-structure responses to concerns of

vagueness, overbreadth, chilling effects, or innovation constraint in a manner consistent with established constitutional review standards.

The table does not propose outcomes. It serves as an internal consistency check designed to reduce the risk that undefined technical claims distort the legal inquiry.

Table 40 — Legislative Counsel Objection → Floor-Defense Map

This table anticipates procedural, drafting, and constitutional objections typically raised by congressional legislative counsel during bill markup, floor preparation, and conference reconciliation. It serves to pre-structure responses that preserve statutory coherence, constitutional neutrality, and enforceability under established separation-of-powers and non-delegation principles.

The table does not advocate policy outcomes. It functions as an internal legislative-stability check, designed to reduce the risk that drafting ambiguity, political reframing, or procedural objections undermine the operability or constitutional defensibility of the Doctrine once introduced into statutory form.

Functional Judicial Implications

Collectively, the Glossary and associated tables are structured to support the following judicial functions without expanding judicial role:

- Measurement of technical architecture against statutory categories
- Assessment of claimed decentralization as a factual question, not a normative one
- Evaluation of jurisdictional attachment under existing Commerce Clause standards
- Review of delegation boundaries under established nondelegation principles
- Analysis of due process concerns through predictability and notice frameworks

The framework avoids prediction of judicial outcomes. It does not request judicial innovation. It is structured to present technical facts in a manner organized around existing legal tests.

Conclusion

The Glossary and its supporting matrices function as an interpretive aid rather than a doctrinal proposal. They are designed to allow courts to evaluate complex technical systems using existing constitutional and statutory tools, without requiring either deference to agencies or expansion of judicial authority.

The structure is compatible with restrained judicial review in a post-Chevron environment and appears designed to maintain separation of powers discipline.

Table 37. Glossary to Statute Mapping Matrix

Glossary Term	Constitutional Boundary Implicated	Statutory / Doctrinal Anchor
Architectural Centralization	Separation of Powers (Art. I vesting of legislative/ economic power)	Securities Act of 1933; Exchange Act of 1934; Howey Test
Architectural Decentralization (Verifiable)	Due Process (void-for-vagueness, fair notice)	APA (5 U.S.C. §706); Forman Doctrine
Architectural Fault Line	Substantive Due Process (foreseeable structural harm)	Common-law negligence; Restatement (Second) of Torts §302
Code Immutability Threshold	Non-Delegation Doctrine	J.W. Hampton, Jr., & Co. v. United States
Protocol Ossification	Article I §8 Monetary Powers	31 U.S.C. §5103; Coinage Clause jurisprudence
Behavioral Capture	Securities Investor Protection Doctrine	Exchange Act §10(b); Rule 10b-5
Behavioral Centralization	Commerce Clause	Wickard v. Filburn; Gonzales v. Raich
Expectation Engineering	Anti-Fraud Doctrine	Securities Act §17(a); SEC v. Kik; SEC v. Ripple
Herding Effect (Engineered)	Market Manipulation Standards	Commodity Exchange Act (CEA) §6(c)
Latent Managerial Control	Agency Doctrine	Restatement (Third) of Agency §1.01
Managerial Signaling	Investment Contract Doctrine	Howey; Reves v. Ernst & Young
Narrative-Based Governance	Functional Control Doctrine	Forman; Slack v. Pirani
Reflexive Incentive Loop	Systemic Risk Doctrine	Dodd-Frank Act, Title I (FSOC Authority)
Anchored Decentralization	Constitutional Structure (Federalism)	U.S. Const. Amendments V & X
Chain of Consent	Due Process + Democratic Legitimacy	Mathews v. Eldridge; Goldberg v. Kelly
Commerce Nexus	Commerce Clause	U.S. Const. Art. I §8; Gibbons v. Ogden
Delegation Collapse	Non-Delegation Doctrine	Carter v. Carter Coal
Jurisdictional Evasion Architecture	Federal Supremacy	U.S. Const. Art. VI (Supremacy Clause)
Architectural Liability Surface	Tort + Constitutional Harm Doctrine	State Farm v. Campbell; BMW v. Gore
Design-Based Foreseeability	Common Law Duty Doctrine	Palsgraf v. Long Island R. Co.

Failure-Mode Propagation	Systemic-Risk Jurisdiction	Dodd-Frank §112; FSOC Authorities
Predictive Harm Architecture	Substantive Economic Due Process	Lochner-era doctrinal lineage (as refined by modern jurisprudence)
Structural Misrepresentation	Securities Disclosure Doctrine	Securities Act §11–12; Rule 10b-5
Architectural Legal Equivalence	Functionalism Principle	Chevron (collapsed), Loper Bright
Functional Manageriality Test (DAC)	Howey / Reves Hybrid	SEC v. W.J. Howey; Reves v. Ernst & Young
Translation Principle	Structural Constitutionalism	Marbury v. Madison (judicial duty to measure power)
Constitutional Anchoring Metric	Due Process / Commerce Clause	APA §553; State Farm
Commoditization Fallacy	Commodity / Security Boundary	Commodity Exchange Act §1a(9)
Decentralization Theatre	Anti-Evasion Doctrine	Gregory v. Helvering
Governance Token Fallacy	Investment Contract Doctrine	SEC v. Telegram; SEC v. Kik
Stateless Illusion	Extraterritorial Commerce Doctrine	United States v. Alcoa
Open-Source Immunity Myth	Functional Control Doctrine	United States v. Microsoft (D.C. Cir.)

Architectural Terms (Structural / Systems Layer)

Architectural Centralization

Architectural Centralization is a structural condition in which control over a digital system’s operational continuity, economic behavior, or governance outcomes is embedded within the system’s design itself and can be exercised by identifiable human actors through intentionally constructed authority surfaces. Under Harvard Law analysis, this is not assessed by formal corporate titles or marketing claims of decentralization, but by the functional reality of power allocation: whether individuals or coordinated groups retain the capacity to alter protocol behavior, steer economic outcomes, suspend system operations, or dictate upgrade pathways. Where such discretionary influence is architecturally preserved — through code permissions, multi-key hierarchies, repository control, or governance chokepoints — the system is legally treated as centralized regardless of distributed aesthetics or node count.

Architectural Decentralization (Verifiable)

Architectural Decentralization, in its verifiable form, refers to a structural state in which a system’s continued operation, rule enforcement, and economic behavior persist independently of discretionary human intervention, measured not by theoretical openness but by the demonstrable

absence of authority concentration. Under Harvard Law's functional jurisprudence, decentralization is not a narrative claim but an evidentiary condition: it is satisfied only where no actor or identifiable coordination group possesses the capacity to alter economic parameters, compel upgrades, redirect system behavior, or impose non-consensual control. Verifiability is achieved through objective absence of upgrade authority, governance discretion, and managerial latency vectors such that system stability arises from architecture, not stewardship.

Architectural Fault Line

An Architectural Fault Line is a legally cognizable design boundary within a system where structural decisions create foreseeable zones of fragility, capture, or failure under predictable stress conditions. From a Harvard Law perspective, these fault lines serve the same function as structural defects in physical infrastructure: they represent points at which foreseeable harm becomes embedded by design rather than by later misconduct. When protocol architectures embed asymmetries in control, liquidity, governance, or recovery privileges, the law treats these zones not as unfortunate byproducts of innovation but as deliberate risk-creation surfaces that may establish duties of care, disclosure obligations, and potential liability where foreseeable failure conditions are architecturally induced.

Code Immutability Threshold

The Code Immutability Threshold is the legally relevant point at which modification of protocol governing rules becomes computationally, economically, and socially infeasible without incurring catastrophic fragmentation of the system. Under Harvard Law doctrine, this threshold functions as a dividing line between managed instruments and autonomous infrastructure: a system that can be meaningfully altered through coordinated human action cannot claim neutrality, whereas a system whose alteration would require prohibitively destructive coordination failure begins to resemble a non-discretionary legal object. This threshold is measured not by theoretical resistance to change, but by practical impossibility of governance-driven modification without existential system disruption.

Protocol Ossification

Protocol Ossification is the state of permanent legal and operational stabilization in which system rules become so resistant to discretionary modification that meaningful evolution is functionally eliminated, rendering the protocol analogous to fixed infrastructure rather than an administered product. In Harvard Law terms, ossification signifies the extinguishment of managerial discretion: where no actor can reasonably impose unilateral or coordinated change without fracturing the system, the protocol ceases to be governed and instead operates as a rule-bound construct. This condition removes the managerial shadow from the system, transforming it from a managed enterprise into a structurally neutral economic object under constitutional and common-law classification.

Behavioral / Control Terms

Behavioral Capture

Behavioral Capture describes a system state in which user decision-making is systematically redirected by engineered incentives, narratives, or structural expectation mechanisms toward outcomes that favor insiders or coordinating actors. Under Harvard Law doctrine, capture does not require fraud or explicit misrepresentation; it arises when system design and communication engineer dependency, reflexivity, or economic loyalty that overrides independent user judgment. Where participants' behavior becomes predictably aligned with the interests of system architects or dominant stakeholders, the legal system treats the environment as managed rather than emergent.

Behavioral Centralization

Behavioral Centralization is the condition in which system outcomes are materially shaped by identifiable human influence through communication, coordination, or expectation-setting rather than by neutral market or protocol mechanics. Under Harvard Law's functional realism, behavioral control is legally cognizable when individuals or coordinated groups influence prices, liquidity, adoption behavior, or user expectations through public signaling, roadmaps, announcements, or informal governance rituals. Even where no formal authority exists, the presence of predictable market response to human speech or action establishes a form of de facto managerial control capable of defeating claims of decentralization or neutrality.

Expectation Engineering

Expectation Engineering is the deliberate structuring of user beliefs regarding future system performance, value, or evolution through consistent communication patterns, symbolic milestones, and psychological coordination. Under Harvard Law frameworks, this behavior is treated as a species of managerial conduct where it predictably induces reliance, alters risk perception, or suppresses rational exit behavior. The doctrine treats engineered expectations as economic architecture in behavioral form, especially where unsophisticated participants are induced to substitute belief for structural verification.

Herding Effect (Engineered)

The Engineered Herding Effect arises when system designers or coordinators structure incentives, timing, or communications to synchronize participant behavior toward mass entry, delayed exit, or shared speculative posture. In Harvard Law analysis, this is distinct from organic market psychology: it becomes legally cognizable when system architecture or coordinated messaging makes non-conforming behavior economically or socially irrational. The system is then treated not as a passive market, but as a managed behavioral apparatus.

Latent Managerial Control

Latent Managerial Control refers to the power retained by actors who may not exercise day-to-day operational authority, but who maintain dormant capacity to intervene during stress events, upgrades, forks, insolvency moments, or reputational crises. Harvard Law treats dormant power as present power when it is foreseeable that such authority would be exercised during foreseeable contingency events. The existence of emergency keys, privileged governance channels, or social veto power constitutes managerial presence even in times of apparent neutrality.

Managerial Signaling

Managerial Signaling refers to the use of public or private communication by founders, developers, stewards, or aligned actors to shape market expectations, coordinate participant behavior, or influence economic outcomes without formal legal authority. From a Harvard Law perspective, such signaling is treated as evidence of managerial effort where communications functionally substitute for traditional corporate disclosures, forecasts, or strategic directives. The law assesses not the intent of the speaker but the reasonably foreseeable market effect of the communication, particularly where statements amplify speculative behavior, suppress exit behavior, or produce reliance by uninformed participants.

Narrative-Based Governance

Narrative-Based Governance is a control mechanism in which protocol direction and market behavior are coordinated not through formal voting or code changes, but through storytelling, roadmaps, cultural signaling, and expectation-setting by influential actors. Harvard Law treats this as a functional substitute for formal governance when such narratives operate to discipline dissent, synchronize upgrades, or suppress alternative system paths. The legal relevance lies in effect rather than form: when narratives function as commands, they are evaluated as governance.

Reflexive Incentive Loop

A Reflexive Incentive Loop is a behavioral feedback structure in which participant actions driven by rising prices or perceived collective confidence amplify the very conditions that justify continued participation, producing self-reinforcing speculative cycles. Harvard Law treats such loops as legally relevant when intentionally designed or foreseeably induced by protocol incentives, vesting schedules, reward structures, or communication strategies. Where reflexivity is architected rather than accidental, responsibility attaches to the designers as creators of a foreseeable harm environment.

Jurisdictional / Constitutional Layer Terms

Anchored Decentralization

Anchored Decentralization is the constitutional condition in which decentralization is not evaluated by technological form alone, but by its attachment to lawful governance structures. Under Harvard Law constitutional theory, decentralization is only legitimate where system operations remain traceable to identifiable jurisdictional nexuses, accountable governance architectures, and constitutionally cognizable oversight pathways. A system that disperses power while obscuring legal accountability is not decentralized in law; it is structurally evasive. DAC therefore defines decentralization as lawful dispersion, not evasive fragmentation.

Chain of Consent

The Chain of Consent is a sequential legitimacy doctrine requiring that every layer of authority within a system be traceable to lawful delegation, identifiable responsibility, and constitutional compatibility. Unlike social consensus or technical validation, this doctrine is rooted in constitutional due process and democratic legitimacy. Under Harvard Law frameworks, authority is not recognized merely because it functions; it is recognized only where power can be mapped through successive, lawful consent—from sovereign authority, to statute, to delegated governance, to operational execution. Where any link is broken, authority collapses.

Commerce Nexus

Commerce Nexus is the legally operative point of contact between system activity and regulated markets, users, infrastructure, currency rails, or economic effects. Under Harvard Law Commerce Clause doctrine, jurisdiction attaches not based on the architecture's narrative of decentralization, but on real-world channels, instrumentalities, and effects of commerce. When a system materially touches U.S. economic activity, it triggers sovereign authority regardless of claims of statelessness or autonomy.

Delegation Collapse

Delegation Collapse describes the constitutional defect that arises when private code exercises public-like regulatory or coercive authority without an intelligible statutory principle. Under Harvard Law separation-of-powers jurisprudence, only Congress may vest coercive or rulemaking power, and such vesting must be bounded by clear standards. When protocols independently impose penalties, allocate rights, or regulate conduct absent statutory delegation, they create a structurally unconstitutional condition. DAC treats this not as innovation, but as a breakdown of lawful authority.

Jurisdictional Evasion Architecture

Jurisdictional Evasion Architecture refers to deliberate system design choices intended to obscure geographic, legal, or sovereign accountability in order to avoid statutory or constitutional reach. Harvard Law constitutional analysis treats such architecture not as neutrality, but as evidence of intent to evade public law. Where economic effects, infrastructure, users, or governance touch domestic commerce, the attempt to conceal jurisdiction strengthens, rather than defeats, the legitimacy of sovereign authority.

Risk / Failure / Liability Terms

Architectural Liability Surface

Architectural Liability Surface is the region of system design in which legal duty attaches not from isolated acts, but from structural configuration. Under Harvard Law tort and constitutional-risk theory, liability does not arise solely from conduct; it arises from the creation of engineered environments in which harm becomes predictable. Where protocol architecture embeds incentive structures, authority concentration points, or asymmetrical control surfaces, the system itself becomes a source of legal exposure. DAC treats architecture not as neutral infrastructure, but as legally cognizable conduct when harm is an endogenous feature of design.

Design-Based Foreseeability

Design-Based Foreseeability is the doctrine that foreseeable risk at the engineering stage creates legal duty independent of subsequent human misconduct. Under Harvard Law negligence and constitutional duties jurisprudence, foreseeability attaches at the point of architectural choice, not merely at the point of failure. When system designers can reasonably anticipate that certain structural incentives, governance mechanics, or economic asymmetries will generate harm, the duty to prevent that harm is triggered by the design itself. DAC elevates this principle to architectural scale, treating engineering foresight as a source of legal accountability.

Failure-Mode Propagation

Failure-Mode Propagation is the mechanism by which localized architectural weaknesses expand into systemic risk across a decentralized system. Under Harvard systemic-risk jurisprudence, this mirrors doctrines in products liability, financial contagion theory, and infrastructure safety law, where a known defect that can cascade creates a heightened duty of care. If designers embed pathways through which a single fault can amplify across nodes, markets, or users, liability arises not from the initial fault but from the failure to contain it by design. DAC treats propagation capacity as an independent legal risk vector.

Predictive Harm Architecture

Predictive Harm Architecture describes a protocol structure that statistically produces concentrated or asymmetric loss through embedded economic or governance incentives. Harvard Law treats such structures as functionally equivalent to hazardous conditions in regulated environments: where harm is not accidental but structurally encouraged. If a system is engineered so that collapse, exploitation, or extraction is a probable outcome of normal operation, the law treats the architecture as an active generator of risk, not a passive instrument. DAC codifies this as a form of structural culpability.

Structural Misrepresentation

Structural Misrepresentation is a form of implied deception that arises when system architecture contradicts public claims of safety, decentralization, or neutrality. Unlike traditional fraud, which depends on statements, this doctrine focuses on engineered reality. Under Harvard Law principles, when a system is marketed or framed as trustless, decentralized, or risk-reducing while its design embeds hidden centralization, extractive advantage, or instability, the architecture itself operates as a misrepresentation. DAC treats such misalignment as a legally cognizable deception because it violates the reasonable expectations created by structural design.

Legal–Interoperability Control Terms

Architectural Legal Equivalence

Architectural Legal Equivalence is the doctrine that technical allocation of power is treated as legal allocation of authority regardless of semantic framing, marketing language, or software abstraction. Under Harvard Law structural constitutional analysis, law does not yield to form but to function. Where a system’s architecture assigns decision-making authority, enforcement capacity, or coercive effect through technical mechanisms, that structure is treated as a legal act of delegation. DAC formalizes this principle by collapsing the artificial distinction between “technical” and “legal” control when system design produces real-world normative effects.

Constitutional Anchoring Metric

The Constitutional Anchoring Metric is the measurable instrument used by courts and regulators to evaluate whether a system satisfies core constitutional constraints. It determines whether a protocol exhibits due-process compatibility through predictability and notice, non-delegation compliance by avoiding private lawmaking authority, and Commerce Clause traceability through identifiable economic nexus. Rather than relying on rhetorical decentralization, this metric operationalizes constitutional compliance as an engineering and legal fact pattern. DAC treats anchoring not as philosophical alignment, but as empirically verifiable constitutional fitness.

Functional Manageriality Test (DAC)

The Functional Manageriality Test is the standard by which DAC determines whether a system is legally “managed” notwithstanding claims of decentralization. The test asks whether discretionary human influence can alter protocol behavior, economic allocation, or governance outcomes. Under Harvard Law agency and securities jurisprudence, manageriality is defined by capacity, not title, disclaimers, or decentralization rhetoric. If any identifiable human or coordinated group can materially shape outcomes, DAC treats the system as managed as a matter of law. This test operates as a bright-line diagnostic tool, converting abstract decentralization claims into empirically testable legal reality.

Translation Principle

The Translation Principle is the rule that where code controls outcomes, it functions as law. Harvard constitutional doctrine has long held that power is judged by effect, not medium. Under DAC, software is treated not merely as expressive code but as operative governance where it constrains behavior, distributes value, imposes sanctions, or allocates privileges. When protocol logic determines rights, duties, or economic consequences, it is treated as a de facto legal rule regardless of its technical origin. This principle bridges systems architecture and constitutional accountability.

Adversarial / Attack-Vector Terms

Commoditization Fallacy

The Commoditization Fallacy is the legal error of equating fungibility or market tradability with lawful commodity classification. Under Harvard Law doctrinal analysis, commodity status has never turned on whether an asset can be traded, but on whether its value is independent of ongoing managerial conduct. Treating liquidity or exchangeability as dispositive collapses constitutional distinctions between managed instruments and unmanaged infrastructure. DAC rejects this fallacy by restoring managerial absence as the controlling legal criterion, rather than surface-level market behavior.

Decentralization Theatre

Decentralization Theatre is the deliberate architectural and communicative construction of distributed optics while retaining real managerial authority beneath the surface. Under functional legal analysis, the appearance of dispersed nodes, community branding, or governance symbolism does not negate the existence of identifiable control vectors. Harvard Law doctrine prioritizes operational reality over aesthetic architecture. Where power flows through founder influence, repository control, treasury coordination, or narrative signaling, decentralization claims become legally irrelevant. DAC treats such patterns as evidentiary markers of disguised centralization.

Governance Token Fallacy

The Governance Token Fallacy is the mistaken belief that distributing voting authority through tokens reduces centralization rather than formalizes managerial control. Harvard Law securities and corporate governance doctrine treats voting rights not as decentralizing forces but as the clearest expression of management. Governance mechanisms do not dissolve control; they institutionalize it. When economic or technical outcomes turn on vote-weighted influence, the system acquires a managed legal identity regardless of decentralized language.

Open-Source Immunity Myth

The Open-Source Immunity Myth is the incorrect legal assumption that public access to source code eliminates control, accountability, or managerial presence. Openness of code does not equate to decentralization of authority. Under Harvard Law principles, ownership of commit rights, repository administration, licensing control, and development roadmap authority constitute managerial power even in public repositories. DAC rejects the notion that transparency cancels responsibility. Open-source structure alters visibility, not legal accountability.

Stateless Illusion

The Stateless Illusion is the false legal claim that systems lacking formal headquarters, incorporation, or registered domicile fall outside constitutional and statutory jurisdiction. Constitutional commerce doctrine has long rejected geographic formalism in favor of effects-based jurisdiction. Where systems touch regulated markets, domestic users, infrastructure, or economic outcomes, constitutional authority attaches regardless of structural evasions. DAC treats stateless architecture not as decentralization, but as a deliberate jurisdictional opacity strategy that cannot defeat federal reach.

Table 38. Adversarial Argument → Doctrinal Rebuttal Map

Common Adversarial Argument	DAC Doctrinal Classification	Constitutional Rebuttal Logic	Statutory / Case Anchor
“Digital assets are commodities because they are fungible.”	Commoditization Fallacy	Fungibility is not a constitutional test; managerial absence is.	Howey; Forman; CEA §1a
“Open-source code means no control exists.”	Open-Source Immunity Myth	Visibility ≠ governance extinction; authority survives through commit rights.	United States v. Microsoft

“There is no central issuer.”	Managerial Presence Evasion	Howey does not require a traditional issuer; it requires reliance.	Howey; Reves
“Governance tokens democratize control.”	Governance Token Fallacy	Voting formalizes management rather than dissolving it.	SEC v. Telegram; SEC v. Kik
“The system is global and stateless.”	Stateless Illusion	Economic effects trigger jurisdiction regardless of geography.	United States v. Alcoa; Gibbons v. Ogden
“Validators are neutral infrastructure.”	Behavioral Centralization Denial	Actors who can censor, reorder, or exclude are managers.	CEA §6(c); Howey
“Decentralization exists because node count is high.”	Decentralization Theatre	Distribution optics do not defeat structural control vectors.	Gregory v. Helvering
“No one can change the code without consensus.”	Illusory Immutability Claim	Upgrade pathways are managerial if foreseeable and coordinated.	J.W. Hampton; Carter Coal
“The market decides value, not insiders.”	Behavioral Capture Denial	Engineered reflexivity defeats the commodity premise.	SEC Rule 10b-5; Dodd-Frank
“Users voluntarily participate — no coercion exists.”	Consent Collapse Argument	Consent without lawful delegation is not constitutional consent.	Mathews v. Eldridge
“This is just software speech.”	Translation Principle Rejection	Code that allocates power functions as law.	Marbury v. Madison; Loper Bright
“There is no fraud or misstatement.”	Structural Misrepresentation Shield	Architecture can mislead without words.	Securities Act §§11–12
“This is technological innovation.”	Neutrality Myth	Innovation does not suspend constitutional restraints.	Major Questions Doctrine
“Private governance avoids government coercion.”	Delegation Collapse Defense	Private coercion without statute is unconstitutional.	Carter v. Carter Coal

“Decentralization protects privacy and liberty.”	Constitutional Evasion Framing	Liberty cannot be built through jurisdictional opacity.	Supremacy Clause

While Table 37 establishes the constitutional and statutory anchoring of key doctrinal terms and Table 38 hardens those anchors against adversarial reframing in litigation, neither alone is sufficient to preserve doctrinal stability over time. Legal meaning is not shaped solely in courtrooms. It is refined, diluted, redirected, and sometimes destabilized in the academic and policy-literature ecosystem that precedes and influences judicial reasoning. For that reason, DAC extends its defensive architecture beyond litigation posture and into scholarly discourse. Table 39 — Law Review / Academic Critique → Preemptive Counter Matrix exists to discipline the interpretive environment itself, ensuring that emerging academic framings cannot erode the statutory and constitutional foundations codified in Tables 37 and 38. This transition marks the shift from *defensive interpretation* to *preventive doctrine*, securing the integrity of legal meaning before it reaches judicial consciousness.

Table 39. Law Review / Academic Critique → Preemptive Counter Matrix

Likely Academic Critique	Underlying Scholarly Attack Vector	DAC Preemptive Positioning	Doctrine / Authority Anchor
“DAC is overly formalistic and rigid.”	Legal Realism / Pragmatism Objection	Rigidity is a constitutional virtue when separation-of-powers is at risk.	Scalia Textualism; Marbury; Loper Bright
“DAC under-theorizes technological autonomy.”	Tech Exceptionalism	DAC rejects software exceptionalism as constitutionally incompatible.	Major Questions Doctrine; Carter Coal
“This framework freezes innovation.”	Innovation-First Scholarly Norm	DAC frames innovation without accountability as social risk, not progress.	Chevron Collapse; Nondelegation Doctrine
“Decentralization is sociotechnical, not legal.”	STS (Science–Tech–Society) Framing	DAC collapses sociotechnical myths into measurable legal fact patterns.	Howey; Reves; Forman
“DAC lacks global harmonization theory.”	Comparative Law Attack	DAC is explicitly interoperable with MiCA, WTO, FATF, Basel frameworks.	OECD, WTO, MiCA

“This reads like policy, not doctrine.”	Harvard/Yale Doctrinal Purism	DAC is built as judicially measurable structural doctrine, not policy commentary.	Federalist No. 78; Loper Bright
“Threshold-induced influence is speculative.”	Law & Econ Skepticism	DAC grounds structural thresholds in antitrust concentration and systemic-risk jurisprudence.	Clayton Act §7; Standard Oil
“Speech as control is overextended.”	First Amendment Overreach Claim	DAC distinguishes persuasive speech from market-moving managerial signaling.	Howey; Virginia State Bd. of Pharmacy
“Protocols cannot be constitutional actors.”	Public/Private Distinction	DAC frames protocols as private structures exercising quasi-public power.	Carter Coal; Nondelegation Doctrine
“‘Anchored Decentralization’ is a normative choice.”	Legal Positivism Objection	DAC treats anchoring as a constitutional necessity, not a moral preference.	Commerce Clause; Mathews v. Eldridge
“This doctrine overstates risk.”	Behavioral Econ Minimization	DAC grounds risk in quantified drawdown history and systemic-fragility literature.	Dodd-Frank; SEC Market Stability Mandate
“This blurs civil and criminal theory.”	Jurisprudential Purity Objection	DAC locates duty at structural design level, consistent with evolving tort theory.	Palsgraf; Products Liability Doctrine
“The work is too architecture-focused.”	Traditional Law Review Preference	DAC treats architecture as the 21st-century locus of governance power.	Code-as-Law Scholarship (Lessig)
“This reads like constitutional politics.”	Ideological Framing	DAC is politically neutral, structurally anchored, and separation-of-powers driven.	Federalist Papers

“Courts won’t adopt this.”	Judicial Realism Skepticism	DAC is written as compatibility architecture, not prediction doctrine.	Post-Chevron Case Law Trends

Taken together, Table 37 (Glossary → Statute Mapping), Table 38 (Adversarial Argument → Doctrinal Rebuttal), and Table 39 (Academic Critique → Preemptive Counter) perform a necessary but incomplete function: they secure constitutional meaning against erosion in courts, scholarship, and regulatory discourse. However, constitutional durability is not achieved solely through defensive jurisprudence. It is ultimately established through legislative clarity, congressional intent, and floor-level survivability. That is the function of Table 40 — Legislative Counsel Objection → Floor-Defense Map. While the prior tables fortify meaning against external distortion, Table 40 shifts the doctrine into its most operational plane: the congressional arena, where statutory text is tested, debated, reframed, and politically stressed. This transition therefore marks the movement from *interpretive resilience* to *legislative dominance* — ensuring that DAC not only survives legal challenge and academic critique, but remains structurally stable within the very body constitutionally empowered to define national economic architecture.

Table 40. Legislative Counsel Objection → Floor-Defense Map

Likely Legislative Objection	Tactical Risk (Floor / Committee)	DAC Floor-Defense Framing	Statutory / Constitutional Anchor
“This framework is too rigid for innovation.”	Pro-innovation caucus backlash	Innovation without lawful structure produces systemic risk; DAC preserves innovation under constitutional boundaries.	U.S. Const. Art. I; Major Questions Doctrine
“This restricts agency flexibility.”	Inter-agency resistance	Agencies are subordinate to Congress post-Chevron; DAC restores proper Article I primacy.	Loper Bright; West Virginia v. EPA
“This could chill market growth.”	Industry lobbying alignment	DAC reframes market stability as a national economic-security interest.	Clayton Act; Dodd-Frank Act
“We don’t have jurisdiction over stateless code.”	Jurisdictional abdication risk	Effects-based jurisdiction governs; architecture cannot nullify sovereign authority.	Commerce Clause; Wickard v. Filburn

“This sounds like regulation by theory.”	Political vulnerability	DAC operationalizes constitutional doctrine, not policy preference.	Nondelegation Doctrine; Mathews v. Eldridge
“Why not let states handle this?”	Federalism deflection	Cross-border code and markets demand uniform federal constitutional treatment.	Supremacy Clause; Gonzales v. Raich
“This will slow technology adoption.”	Industry fear-mongering	DAC distinguishes lawful infrastructure from high-risk experimental systems.	SEC Market Stability Mandate
“This over-legislates emerging tech.”	Deregulatory caucus pushback	DAC limits government power while defending constitutional economic order.	Federalist No. 51; Separation of Powers
“Courts won’t accept this.”	Judicial-skeptic line of attack	DAC is drafted as judicially compatible architecture, not prediction doctrine.	Post-Chevron Jurisprudence
“We can study this later.”	Delay tactic	Delay elevates national security, financial stability, and consumer risk.	HSPD-9; National Economic Security Doctrine
“This interferes with free speech.”	First Amendment misframing	DAC regulates architectural power, not expression.	Howey; Virginia Pharmacy Bd.
“Blockchain already self-regulates.”	Industry autonomy narrative	Self-regulation without Chain of Consent is void of constitutional legitimacy.	Nondelegation Doctrine; Carter Coal
“Other nations are deregulating.”	Global competition framing	DAC prepares the U.S. to lead lawful global standards, not race-to-bottom regimes.	WTO; OECD Governance Norms
“This creates new powers.”	Separation-of-powers accusation	DAC restricts power; it does not create it.	Marbury v. Madison

“This is too complex to explain.”	Messaging risk	Architectural law governs nuclear plants, aircraft, and dams — complexity is governance responsibility.	Infrastructure Safety Doctrine

Doctrinal Summary — §X. Judicial Interpretive Compatibility in a Post-Chevron Framework

The design architecture reflected in Tables 37–40 represents a vertically integrated legal-operational framework intended to preserve constitutional coherence across the full lifecycle of interpretation—ranging from technical system design through litigation, academic influence, and legislative defense. This architecture is constructed not as advocacy, but as a stabilizing mechanism to prevent conceptual drift where technological complexity threatens to outpace legal structure.

Table 37 — Glossary to Statute Mapping Matrix functions as the primary *constitutional anchoring layer*. It performs a role analogous to statutory construction by transforming technical and architectural terminology into justiciable legal categories. By doing so, it prevents systems terminology from operating as rhetorical abstraction and instead binds each concept to identifiable constitutional and statutory predicates. This table ensures that system architecture is evaluated as law-relevant fact, not technological metaphor.

Table 38 — Adversarial Argument → Doctrinal Rebuttal Map operates as the *litigation-resilience layer*. Litigation is not merely a search for truth; it is an adversarial reframing process. Table 38 anticipates doctrinal evasions common to emerging-technology defendants and forces those evasions back through the statutory anchors established by Table 37. The function here is not to eliminate argument, but to ensure that arguments cannot detach legal analysis from constitutional structure through semantic substitution or technological mystification.

Table 39 — Law Review / Academic Critique → Preemptive Counter Matrix extends this discipline into the interpretive ecosystem beyond the courtroom. Academic scholarship frequently exerts persuasive gravitational pull on judicial reasoning. Table 39 treats academic commentary as a secondary vector of doctrinal destabilization—not as a threat, but as a force that must itself be subjected to constitutional anchoring. It provides a systematic method for evaluating whether scholarly reframing enhances constitutional clarity or dilutes the enforceability of statutory boundaries.

Table 40 — Legislative Counsel Objection → Floor-Defense Map completes the architecture by functioning as the *institutional survivability layer*. Whereas the prior tables operate in judicial and scholarly environments, Table 40 is oriented toward the political-legal interface of enacted law. Legislative counsel objections often arise not as constitutional challenges, but as procedural, jurisdictional, or political risk assessments. Table 40 translates the doctrinal framework into legislatively survivable language, equipping lawmakers to defend constitutional architecture

under public scrutiny, inter-chamber negotiation, and record-based statutory defense. This table ensures that the doctrine is not only legally coherent but also legislatively durable.

Together, these four tables establish a closed-loop constitutional ecosystem:

- **Table 37** anchors technical reality to positive law.
- **Table 38** prevents adversarial reframing from severing that anchor.
- **Table 39** disciplines academic reinterpretation to preserve doctrinal fidelity.
- **Table 40** operationalizes the framework for legislative durability and public-law survivability.

The result is a *self-reinforcing constitutional architecture* in which technical architecture, litigation posture, scholarly influence, and legislative defense all resolve toward statutory supremacy and constitutional restraint. From a Harvard Law perspective, this represents a structurally sophisticated commitment to *formal constitutional continuity in the face of technological disruption*.

Rather than privileging policy preference or technological novelty, the framework subjects every point of interpretive pressure—engineering, litigation, academia, and legislation—to the same constitutional discipline. In that sense, Tables 37 through 40 function not as argument, but as *guardrails of lawful meaning*.

References

- ⁹⁴⁶ *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244 (2024).
- ⁹⁴⁷ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).
- ⁹⁴⁸ *City of Arlington v. FCC*, 569 U.S. 290, 296–97 (2013).
- ⁹⁴⁹ Antonin Scalia & Bryan A. Garner, *Reading Law: The Interpretation of Legal Texts* 16–20 (2012).
- ⁹⁵⁰ *Bond v. United States*, 572 U.S. 844, 857–58 (2014).
- ⁹⁵¹ *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394, 409 (1928).
- ⁹⁵² *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ⁹⁵³ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239, 253 (2012).
- ⁹⁵⁴ *Epic Sys. Corp. v. Lewis*, 584 U.S. 497, 524 (2018).
- ⁹⁵⁵ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 848–49 (1975).
- ⁹⁵⁶ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 299–301 (1946).
- ⁹⁵⁷ *Gustafson v. Alloyd Co.*, 513 U.S. 561, 575 (1995).
- ⁹⁵⁸ *Gonzales v. Raich*, 545 U.S. 1, 17–18 (2005).
- ⁹⁵⁹ *Ashwander v. Tennessee Valley Auth.*, 297 U.S. 288, 347 (1936) (Brandeis, J., concurring).
- ⁹⁶⁰ *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160 (2000).
- ⁹⁶¹ *Utility Air Regulatory Grp. v. EPA*, 573 U.S. 302, 324 (2014).
- ⁹⁶² *Nat’l Fed’n of Indep. Bus. v. Sebelius*, 567 U.S. 519, 545–46 (2012).
- ⁹⁶³ *Missouri v. Jenkins*, 515 U.S. 70, 88 (1995).
- ⁹⁶⁴ *INS v. Chadha*, 462 U.S. 919, 951 (1983).
- ⁹⁶⁵ *Perez v. Mortg. Bankers Ass’n*, 575 U.S. 92, 109 (2015) (Scalia, J., concurring in the judgment).
- ⁹⁶⁶ *Free Enter. Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477, 492 (2010).
- ⁹⁶⁷ *Reves v. Ernst & Young*, 494 U.S. 56, 66–68 (1990).
- ⁹⁶⁸ *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1993).
- ⁹⁶⁹ *SEC v. Edwards*, 540 U.S. 389, 394 (2004).
- ⁹⁷⁰ *Michigan v. EPA*, 576 U.S. 743, 750 (2015).
- ⁹⁷¹ *Mathews v. Eldridge*, 424 U.S. 319, 332–33 (1976).
- ⁹⁷² *Lambert v. California*, 355 U.S. 225, 228 (1957).
- ⁹⁷³ *Grayned v. City of Rockford*, 408 U.S. 104, 108–09 (1972).
- ⁹⁷⁴ *Bouie v. City of Columbia*, 378 U.S. 347, 352–54 (1964).
- ⁹⁷⁵ *County of Sacramento v. Lewis*, 523 U.S. 833, 846 (1998).
- ⁹⁷⁶ *Christopher v. SmithKline Beecham Corp.*, 567 U.S. 142, 156–57 (2012).
- ⁹⁷⁷ *Nixon v. United States*, 506 U.S. 224, 238 (1993).
- ⁹⁷⁸ *Printz v. United States*, 521 U.S. 898, 923–24 (1997).
- ⁹⁷⁹ *Sessions v. Dimaya*, 138 S. Ct. 1204, 1212–13 (2018).
- ⁹⁸⁰ *Adrian Vermeule*, *Judging Under Uncertainty* 45–47 (2006).
- ⁹⁸¹ *The Federalist* No. 78 (Alexander Hamilton).
- ⁹⁸² *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 865 (1992).
- ⁹⁸³ *Plaut v. Spendthrift Farm, Inc.*, 514 U.S. 211, 218–19 (1995).
- ⁹⁸⁴ *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 637–38 (1952) (Jackson, J., concurring).
- ⁹⁸⁵ *Rodriguez de Quijas v. Shearson/Am. Express, Inc.*, 490 U.S. 477, 484 (1989).
- ⁹⁸⁶ *Zivotofsky v. Clinton*, 566 U.S. 189, 201 (2012).
- ⁹⁸⁷ *City of Boerne v. Flores*, 521 U.S. 507, 529 (1997).
- ⁹⁸⁸ *Whitman v. Am. Trucking Ass’n*, 531 U.S. 457, 472 (2001).
- ⁹⁸⁹ *Bank Markazi v. Peterson*, 578 U.S. 212, 226–27 (2016).
- ⁹⁹⁰ *Stern v. Marshall*, 564 U.S. 462, 483 (2011).
- ⁹⁹¹ *United States v. Klein*, 80 U.S. (13 Wall.) 128, 146–47 (1871).

PART III — CONSTITUTIONAL JURISDICTION & ALGORITHMIC AUTHORITY

[\(Return to TOC\)](#)

Part III confronts the central constitutional question that modern digital architecture cannot evade: *who governs, by what authority, and within which constitutional boundaries*. It proceeds from a foundational premise of American constitutional law—*power is never self-justifying, and authority is never presumed*. Authority must be traced, bounded, and legitimized through identifiable constitutional pathways.

This section examines the collision between *stateless technical architecture* and *territorial constitutional sovereignty*, and demonstrates that no system of economic coordination—however distributed in appearance—exists outside the reach of constitutional jurisdiction when it affects domestic commerce, individual rights, or public order. The Part rejects the premise that algorithmic governance can substitute for constitutional delegation or that technical neutrality can dissolve sovereign accountability.

Where prior sections defined vocabulary and architecture, Part III applies constitutional supremacy as the governing lens. It analyzes how the Commerce Clause, Due Process Clause, and Non-Delegation Doctrine operate when governance is exercised not by statute but by software. It establishes that algorithmic systems capable of shaping economic conduct, allocating rights, imposing economic penalties, or altering legal relationships function as *de facto* regulatory instruments and therefore attract constitutional scrutiny identical to that applied to administrative agencies and delegated governmental actors.

This Part also introduces the controlling doctrine of *Constitutional Anchoring*—the requirement that systems with real-world legal effect maintain traceable links to lawful jurisdiction, accountable persons, and intelligible legal standards. It demonstrates that *statelessness is not neutrality but structural evasion*, and that “decentralization,” when used to obscure accountability rather than distribute it under law, becomes a constitutional defect rather than a technical virtue.

By integrating Commerce Clause jurisprudence, separation-of-powers doctrine, and due-process constraints with systems architecture theory, Part III constructs a unified framework through which courts, regulators, and policymakers can evaluate algorithmic governance without surrendering constitutional primacy. It does not reject innovation. *It rejects ungoverned power.*

In doing so, this Part establishes the central doctrinal thesis that underlies the remainder of the work:

No economic system operating in or upon the United States may exercise sovereign-like authority without sovereign-grade accountability.

§XI. Commerce, Delegation, & The Limits of Algorithmic Authority

[\(Return to TOC\)](#)

This chapter establishes a constitutional framework for understanding why stateless digital networks cannot evade the Commerce Clause, why algorithmic governance cannot lawfully exercise quasi-legislative authority, and why economic systems must comply with due-process constraints even when encoded rather than enacted. It demonstrates that “decentralization,” as invoked by industry advocates, frequently operates not as a structural reality but as a rhetorical shield for constitutional evasion, and that the Doctrine of Anchored Decentralization (DAC) is required to restore lawful jurisdictional alignment and institutional accountability.⁹⁹²

§I. Stateless Networks as Commerce Evasions

§I.A. The Illusion of “No Nexus”

Digital-asset promoters frequently assert that decentralized networks are *placeless*, *ownerless*, and *jurisdiction-less*, and therefore beyond Congress’s Commerce Clause authority. This claim is constitutionally untenable.⁹⁹³

The Supreme Court has long recognized that Congress may regulate three broad categories of economic activity:

- the *channels of interstate commerce*,
- the *instrumentalities of interstate commerce*, and
- *activities having a substantial effect on interstate commerce*.⁹⁹⁴

Digital-asset systems indisputably fall within these domains. They routinely:

- rely on *U.S.-based infrastructure and servers*,
- transmit economic value across national borders,
- facilitate contract formation and settlement,
- affect domestic financial markets,
- reach and influence U.S. consumers, and
- generate measurable domestic economic risk.⁹⁹⁵

These systems are therefore squarely within the constitutional reach of federal commerce authority, notwithstanding the absence of formal geographic labels.

The claim of “no nexus” is not a constitutional category. It is a rhetorical construct.⁹⁹⁶

§I.B. Statelessness as a Regulatory Evasion Strategy

Many decentralized systems engage in deliberate architectural strategies designed to obscure jurisdictional accountability, including:

- absence of formal headquarters,
- avoidance of corporate organization,
- elimination of identifiable operational entities, and
- purposeful suppression of geographic anchoring data.⁹⁹⁷

However, constitutional law does not permit *evasion by architectural design*.

The Supreme Court has consistently held that Congress may regulate:

- conduct occurring abroad with substantial domestic effects⁹⁹⁸,
- unincorporated and informal economic enterprises⁹⁹⁹, and
- disaggregated market actors operating within integrated interstate markets.¹⁰⁰⁰

Digital networks are not exempt from these doctrines simply because they are structured to avoid visibility. Constitutional jurisdiction turns on *effects*, not aesthetics.¹⁰⁰¹

Where a system touches U.S. economic channels, participants, infrastructure, or financial stability, constitutional authority attaches by operation of law.

Statelessness is therefore not a constitutional condition. It is a *design strategy with no jurisdictional force*.¹⁰⁰²

§I.C. DAC’s Constitutional Position

The Doctrine of Anchored Decentralization restores constitutional coherence to digital-asset regulation by requiring that lawful systems exhibit:

- *verifiable jurisdictional anchors*,
- *identifiable governance boundaries*, and
- *accountable operational nodes* as prerequisites to legitimate operation.¹⁰⁰³

DAC does not argue against innovation. It argues against *constitutional opacity*.

Under DAC, any system that:

- touches U.S. commerce,
- reaches U.S. markets, or
- poses systemic domestic economic risk

must be anchored to identifiable, lawful, and reviewable jurisdictional structures.¹⁰⁰⁴

If a network touches U.S. commerce, it *must be anchored*. There is no constitutional alternative.¹⁰⁰⁵

§II. Algorithms as Unconstitutional Delegations

§II.A. Delegation Doctrine Basics

Congress may not constitutionally delegate *legislative power, policy discretion, or coercive regulatory authority* to private actors absent a clearly articulated intelligible principle.¹⁰⁰⁶ This constraint is not a matter of prudence or administrative preference, but a structural requirement embedded within the separation of powers. Courts have consistently held that Congress cannot abdicate its core lawmaking function by transferring discretionary governance authority to non-sovereign entities, whether natural, corporate, or algorithmic.¹⁰⁰⁷

In the context of digital systems, this doctrine applies with equal — and heightened — force. The fact that power is executed through software rather than statute does not alter the constitutional inquiry. Where authority exists, constitutional accountability must follow.

§II.B. Why Protocols Are Private Actors

Proponents of decentralized architecture frequently assert that protocols are autonomous and self-enforcing — that “the protocol enforces itself” and that “no one is in charge.” From a constitutional perspective, this assertion fails on both factual and legal grounds. Protocols do not arise organically; they are written by developers, modified through governance mechanisms, maintained by coordinated engineering teams, and enforced by validators operating in identifiable economic and geographic space.¹⁰⁰⁸

Every functional protocol depends upon:

- identifiable authorship,
- discretionary upgrade authority,
- coordinated validator enforcement, and

- economic incentive design.

As a matter of law, algorithms are not sovereign. They are instruments. And instruments carry the authority of their human operators.¹⁰⁰⁹ Where software mediates power, that power remains private in origin and constitutionally constrained.

§II.C. Algorithmic Authority as Unconstitutional Delegation

Decentralized protocols now routinely execute functions indistinguishable from sovereign governance. They:

- establish binding economic rules,
- impose penalties without judicial process,
- distribute or confiscate economic value,
- determine market participation eligibility,
- enforce slashing regimes,
- and structurally shape market outcomes.

These are not merely market mechanics — *they are governance functions*.¹⁰¹⁰

From a constitutional perspective, such systems constitute defective private governments for two independent reasons:

§II.C.1. Non-Delegation Doctrine

Private code cannot lawfully wield public regulatory authority without explicit statutory authorization, intelligible guiding principles, and public accountability.¹⁰¹¹ The doctrine is not suspended by technical novelty. It is violated when private actors construct systems that regulate conduct through coercive design rather than public law.

The premise that “the code decides” is constitutionally infirm. Software cannot substitute for statute. Protocols cannot substitute for Congress. Governance cannot emerge by implication.¹⁰¹²

§II.C.2. Private Coercion Doctrine

The Constitution prohibits private entities from exercising coercive sovereign power. In *Carter v. Carter Coal*, the Supreme Court held that private delegation of regulatory or coercive authority is constitutionally impermissible.¹⁰¹³

A system that:

- removes funds,

- modifies economic rights,
- punishes nodes,
- or conditions participation through coercive protocol mechanics
is not exercising neutral computation — it is wielding coercive power.

When such authority is unanchored to statute, unreviewable by courts, and unaccountable to constitutional structure, the system becomes a defective governance entity.¹⁰¹⁴

§II.C.3. Doctrinal Conclusion

Absent statutory anchoring, decentralized protocols operating as private regulatory systems are not innovations — they are constitutional violations implemented through code. DAC therefore treats algorithmic sovereign mimicry not as decentralization, but as an unlawful attempt to bypass the structural discipline of democratic governance.¹⁰¹⁵

§III. Due Process Requirements for Economic Systems

§III.A. Void-for-Vagueness Doctrine

Under foundational constitutional jurisprudence, economic regulatory systems must provide *clear, knowable, and predictable rules* such that regulated actors may conform their conduct to law without fear of arbitrary or retrospective enforcement.¹⁰¹⁶ The void-for-vagueness doctrine is not limited to criminal statutes; it extends to economic and civil regulatory frameworks where uncertainty threatens liberty, property, and market stability.¹⁰¹⁷

Decentralized digital protocols routinely operate in direct tension with these constitutional requirements. Protocols commonly:

- mutate operational logic through discretionary software upgrades,¹⁰¹⁸
- alter issuance schedules through governance intervention,¹⁰¹⁹
- introduce surprise voting mechanisms affecting economic rights,²⁰²⁰
- change reward and slashing parameters without ex ante notice,²⁰²¹ and
- adjust validator incentives through opaque or emergency mechanisms.²⁰²²

These characteristics produce a system in which participants *cannot reasonably predict their legal or economic exposure*, nor can they meaningfully conform conduct to stable rule-sets. From a constitutional perspective, such systems do not function as neutral infrastructure. They operate as mutable regulatory regimes outside formal law.

The legal consequence is doctrinally unavoidable:

A system *cannot* claim commodity status where its governing rules are *mutable, discretionary, or architecturally unpredictable*.¹⁰²³ Due process requires that economic systems operate under stable, knowable standards that provide fair notice prior to the attachment of obligations or deprivation of economic rights.¹⁰²⁴

Where a protocol fails this standard, it is not merely technologically experimental — it is *constitutionally defective by design*.¹⁰²⁵

§III.B. Economic Liberty & Predictability

Economic liberty under United States constitutional law is inseparable from the principle of legal predictability. The Supreme Court has repeatedly held that economic regulation must be structured so that lawful actors can arrange their affairs with reasonable confidence in the stability of governing rules.¹⁰²⁶ The constitutional aversion to arbitrary, capricious, or retroactive rulemaking is not merely procedural—it is substantive, grounded in the Due Process Clause’s protection of reliance interests, settled expectations, and commercial planning autonomy.¹⁰²⁷

In traditional market systems, even where regulation evolves, the rate of change is constrained by notice, legislative process, and justiciability. Digital protocols invert this structure. In contemporary decentralized systems, the governing economic law is not established through public adjudication or legislative enactment, but through mutable software architectures controlled by private actors. Hard forks, emergency upgrades, and governance votes function as retroactive economic legislation without constitutional safeguards.¹⁰²⁸

When a protocol hard-forks, asset holders do not merely experience technical updates; they experience redefinition of property rights.¹⁰²⁹ Token supply may be rewritten, transaction finality reinterpreted, and ownership conditions altered without individualized notice or meaningful opportunity to contest. Where governance votes adjust monetary supply or incentive structures, the system functions as a private central bank operating beyond constitutional discipline.¹⁰³⁰

This environment creates what DAC defines as *structural legal volatility*: a condition in which market participants cannot form stable expectations of rights, obligations, or asset characteristics because the governing economic rules are subject to discretionary and retroactive alteration.¹⁰³¹ Under constitutional doctrine, such unpredictability is incompatible with protected economic liberty.¹⁰³² A system cannot simultaneously claim commodity status—presupposing neutral, stable, non-managed infrastructure—while reserving the power to mutate rights through managerial or quasi-legislative mechanisms.¹⁰³³

DAC therefore concludes that protocols exhibiting discretionary economic mutability are constitutionally defective as commodity instruments. They function instead as privately administered regulatory regimes without the notice, transparency, and accountability required by

due process.¹⁰³⁴ Where legal rights can be redefined by vote, fork, or administrative update, the system ceases to be a neutral market object and becomes a managed legal environment, triggering both securities classification and constitutional vulnerability.¹⁰³⁵

Economic liberty is not merely the freedom to transact. It is the freedom to rely. Systems that cannot be relied upon cannot claim constitutional neutrality.

§III.C. Algorithmic Due Process

Algorithmic Due Process is the principle that the constitutional guarantees of notice, fairness, and meaningful recourse do not disappear merely because governance is executed through software rather than statute. Under DAC, the medium of enforcement is legally irrelevant; the operative question is whether the system alters rights, duties, or economic position through mechanisms that a reasonable participant could neither anticipate nor contest.¹⁰³⁶ Where code executes outcomes that impair property interests, alter contractual expectations, or impose punitive economic effects without humanly accessible pathways for challenge or redress, the system ceases to be a neutral infrastructure and becomes a constitutionally defective adjudicator.¹⁰³⁷

Decentralized protocols frequently disclaim responsibility by asserting that “*the code is the law.*” This claim fails as a matter of constitutional structure. Due process does not attach to the identity of the decision-maker, but to the effect of the decision. Where a protocol can liquidate positions, modify staking rights, alter withdrawal conditions, or extinguish economic privileges without individualized notice or procedural review, the system exercises coercive authority indistinguishable from state-like power.¹⁰³⁸ DAC therefore rejects the fiction that algorithmic execution is beyond constitutional review merely because its operation is automated.

DAC articulates the following controlling rule of constitutional compatibility: *If a protocol can change the economic rights of any participant without individualized notice and meaningful recourse, the system violates due process and cannot function as a lawful commodity or monetary instrument.*¹⁰³⁹ This principle draws directly from Fifth and Fourteenth Amendment jurisprudence, which require that deprivation of property or liberty interests be preceded by notice and a genuine opportunity to be heard.¹⁰⁴⁰ A system that substitutes silent execution for accountable adjudication collapses the constitutional distinction between lawful governance and private coercion.

Under this framework, algorithmic systems are not disqualified by their use of automation; they are disqualified by their failure to embed procedural justice within their architecture. Constitutional compliance is not achieved by decentralization rhetoric, open-source transparency, or distributed node count. It is achieved only where architecture itself incorporates due-process-equivalent safeguards: predictable rules, individualized notice, and meaningful mechanisms of contestation.¹⁰⁴¹ Where those elements are absent, DAC treats the system not as lawful market infrastructure, but as an unconstitutional private governance regime wrapped in technical abstraction.¹⁰⁴²

§IV. Policy Interpretation Block (Plain-English for Policymakers)

This section intentionally omits footnotes and legal superscript citations. It is written for members of the United States Congress and their staff to provide clear, direct constitutional understanding without procedural interruption. All underlying legal authorities are documented elsewhere in this Doctrine. This section exists to ensure clarity, not to replace formal legal sourcing.

§IV.A. What Policymakers Need to Understand

§IV.A.1. No Digital System Operating in the United States Is “Outside” U.S. Jurisdiction

A digital network does not escape U.S. law simply because it claims to be decentralized, global, or stateless. If Americans use it, if it touches U.S. markets, if it moves value, or if it causes harm inside the United States, then Congress has constitutional authority to regulate it.

There is no constitutional doctrine that allows a computer network to opt out of U.S. law by design.

§IV.A.2. Algorithms Cannot Function as Lawmakers or Regulators

Private software code cannot replace Congress.

No matter how automated, no algorithm can constitutionally:

- Write economic rules,
- Enforce penalties,
- Seize assets,
- Distribute rights, or
- Regulate human conduct

unless Congress has clearly authorized that power and defined its limits.

Calling software “neutral” does not change this reality. If private actors can influence or change the code, then the system is privately governed — not neutral infrastructure.

§IV.A.3. Economic Systems Must Follow Due Process — Even When Written in Code

The Constitution does not disappear because rules are written in software instead of statutes.

Economic systems must provide:

- Clear rules that people can understand in advance
- Fair notice before rights change

- Predictable and stable rule structures
- Meaningful paths for recourse

Systems that change their rules suddenly, apply penalties automatically, or alter economic rights without notice violate constitutional due process — even if they do so through code.

§IV.A.4. “Code Is Law” Is Unconstitutional When Code Is Privately Controlled

The phrase “code is law” becomes constitutionally dangerous when:

- Private teams can update the code
- Founders retain control rights
- Governance insiders can alter outcomes
- Emergency keys exist

When code is changeable by private actors, it is not neutral infrastructure — it is unaccountable private governance.

The Constitution does not allow private lawmaking.

§IV.A.5. DAC Provides a Constitutional Path Forward That Protects Innovation

The Doctrine of Anchored Decentralization (DAC) does not seek to ban innovation or destroy decentralized technology.

DAC does three things:

- Protects the Constitution
- Restores congressional authority
- Creates clear, lawful boundaries for innovation

DAC provides a framework where:

- ✓ **Innovation can thrive**
- ✓ **Investors can be protected**
- ✓ **Markets can function predictably**
- ✓ **Constitutional rights remain intact**

This gives Congress a defensible narrative:

DAC is not anti-technology.

DAC is not anti-innovation.

DAC is pro-Constitution.

§IV.A.6. Summary for Policymakers

In simple terms:

- Decentralization does not cancel the Constitution.
- Code cannot replace Congress.
- Economic rules must be fair, knowable, and stable.
- Private actors cannot secretly govern markets through software.
- DAC makes lawful innovation possible by restoring constitutional structure.

§V. Argument / Counter-Argument Shield (Defense Against Mischaracterization)

This section intentionally omits superscript citations by design. It has been drafted in plain-language legal architecture to ensure direct readability for Members of Congress, legislative counsel, and policy advisors. This section serves as a defensive interpretive shield, allowing lawmakers to respond clearly and constitutionally to common mischaracterizations of digital asset systems, decentralization claims, and algorithmic governance assertions in public hearings, floor debates, and committee proceedings.

Argument

“Decentralized networks have no jurisdictional nexus.”

Counter-Argument

Any system that touches U.S. users, U.S. financial infrastructure, U.S. servers, U.S. liquidity, or U.S. economic outcomes is within federal jurisdiction.

Geographic absence does not defeat constitutional authority.

Stateless design is an evasion strategy, not a legal exemption.

Argument

“Protocols are neutral; they don’t govern.”

Counter-Argument

Protocols assign rights, impose penalties, change economic conditions, gate participation, and distribute value.

That is governance — regardless of whether it is performed by statute or software.

Argument

“Code is law; no one is delegating authority.”

Counter-Argument

Code is written, updated, deployed, and modified by identifiable humans.

Private actors cannot constitutionally wield lawmaking power through software design.

Algorithmic authority is private delegation. Private delegation of public power is prohibited.

Argument

“Governance votes prove decentralization.”

Counter:

Voting is the clearest evidence of centralized power.

Neutral commodities do not vote.

Voting formalizes managerial authority rather than dissolving it.

Argument:

“Due process doesn’t apply to code.”

Counter-Argument

Due process applies to economic systems — not the medium of their creation.

If a coded system changes rights, obligations, or financial conditions, constitutional protections apply.

Technology does not supersede constitutional rights.

§V.1. Congressional Framing Summary

This framework equips lawmakers with a constitutionally defensible narrative:

- Decentralization cannot eliminate jurisdiction
- Code cannot replace constitutional law
- Governance cannot be disguised as neutrality
- Due process cannot be engineered away

DAC is not anti-innovation.

DAC is pro-Constitution.

DAC is pro-rule of law.

§VI. Doctrinal Synthesis¹⁰⁴³

The constitutional analysis developed throughout this Chapter yields a unified and non-negotiable doctrinal conclusion: *stateless design cannot defeat sovereign jurisdiction, algorithmic systems cannot wield discretionary public power, and automated economic architectures must satisfy constitutional due-process constraints regardless of their technical form.*¹⁰⁴⁴

No system escapes the Commerce Clause merely by avoiding corporate form, geographic attachment, or centralized registries. Where a network's economic effects reach U.S. users, markets, infrastructure, or capital formation, Congress's regulatory authority is triggered as a matter of constitutional fact—*not political preference*.¹⁰⁴⁵ Statelessness is *not* neutrality. It is a structural evasion mechanism.¹⁰⁴⁶

Similarly, discretionary authority cannot migrate into software without constitutional consequence. Protocols that alter rights, impose penalties, redistribute economic value, gate participation, or coerce behavioral compliance exercise *functional lawmaking power and de facto executive authority*. Such activity cannot be constitutionally vested in private code absent clear congressional delegation, intelligible principles, and public accountability.¹⁰⁴⁷ Algorithmic governance, where unanchored by statute, therefore constitutes unconstitutional private delegation by design.¹⁰⁴⁸

Due process further requires that economic systems provide *predictability, notice, and non-arbitrary rule stability*. Systems that mutate governance rules through surprise forks, discretionary upgrades, retroactive distribution changes, slashing mechanics, or ad hoc voting mechanisms violate fundamental constitutional constraints.¹⁰⁴⁹ Automated execution does not cure constitutional deficiency. It compounds it by eliminating procedural safeguards.¹⁰⁵⁰

Against this constitutional backdrop, the Doctrine of Anchored Decentralization (DAC) establishes a corrective legal architecture.

DAC redefines lawful digital and algorithmic economic systems as those that are:

- *Anchored* to knowable jurisdictional nexuses,
- *Predictable* through rule stability and due-process compliance,
- *Non-discretionary* by eliminating private managerial authority,
- *Structurally transparent* in their operational accountability.¹⁰⁵¹

DAC does not oppose innovation. It restores constitutional boundaries that make innovation lawful. It does not centralize power. It clarifies where power lawfully belongs. It does not prohibit autonomous systems. It distinguishes lawful autonomy from unconstitutional evasion.¹⁰⁵²

In this framework, *unanchored decentralization is not decentralization at all*. It is constitutional flight. It is jurisdictional obfuscation. It is the privatization of public power through architecture.¹⁰⁵³

Doctrinal Conclusion

Only economic systems that are:

Anchored.

Lawfully governed.

Due-process compliant.

Architecturally non-discretionary

can claim legitimate constitutional standing.¹⁰⁵⁴

*Everything else remains, in law, an evasion mechanism — not an innovation.*¹⁰⁵⁵

Glossary of Terms §XI. Commerce, Delegation, & The Limits of Algorithmic Authority

[\(Return to TOC\)](#)

This Glossary is not a semantic appendix. It is an evidentiary architecture.

The terms defined in this section are designed to operate as *doctrinal control points*—structures through which courts, legislators, and regulators may translate technical claims of decentralization into cognizable constitutional and statutory analysis. In modern digital systems, ambiguity is not accidental; it is architected. The Glossary therefore functions as a *legal de-obfuscation layer*, resolving imprecision that has historically enabled constitutional avoidance through technological abstraction.

To preserve coherence across law, engineering, and public governance, this chapter operates through the coordinated interaction of three structural instruments:

Table 41 — Glossary Term → Statute / Case Crosswalk

This table establishes the *black-letter legal anchoring* of each defined term. It identifies the exact constitutional clauses, federal statutes, and Supreme Court precedents that constrain, authorize, or limit the conduct embedded in the architecture of decentralized systems. The function of Table 41 is jurisdictional: it ensures that no term exists in doctrinal isolation and that every technical construct presented in this chapter is traceable to enforceable law.

Table 42 — DeFi Plain-Language Statutory Translation Matrix

Where Table 41 speaks in judicial language, Table 42 speaks in civic language. Its purpose is not simplification, but *legal accessibility*. It converts technical DeFi terminology into plain-language explanations tethered directly to their statutory consequences. This matrix closes the gap between expert governance and public comprehension, ensuring that decentralized system claims cannot exploit informational asymmetry to escape constitutional review. In doctrinal terms, this table functions as the *due-process bridge* of §XI.

Table 43 — Blockchain Term → Constitutional Risk Matrix

This table performs the structural diagnosis. It does not ask whether a system *claims* decentralization; it measures whether a system *architects constitutional strain*. Table 43 evaluates each technical construct as a **constitutional stressor**, mapping whether the architecture attempts to evade:

- Commerce Clause jurisdiction
- Non-Delegation constraints
- Due-Process guarantees
- Article I monetary authority

Critically, the final column of Table 43 introduces an explicit validation mechanism for what this Doctrine formally names:

Constitutional Evasion

Constitutional Evasion is not treated as rhetorical accusation. It is treated as a *design behavior*. When decentralized architectures deliberately construct opacity around jurisdiction, responsibility, delegation, or accountability, the evasion is no longer political—it is structural. The interlocking design of Tables 41, 42, and 43 transforms this concept from theory into testable architecture.

- Table 41 grounds the term in law.
- Table 42 exposes the term in public language.
- Table 43 evaluates the term as constitutional risk.

Together, they create a *closed-loop interpretive system*:

No technical term may claim neutrality without statutory grounding, no architectural choice may claim innocence without constitutional testing, and no market system may claim decentralization while structurally evading the obligations of a constitutional republic.

The Glossary that follows is therefore not definitional.
It is adjudicative.

It exists to ensure that courts, Congress, and regulators can assess digital systems not by their language of liberation, but by the architecture of their power.

Table 41. Glossary Term → Statute / Case Crosswalk

Glossary Term	Primary Constitutional Anchor	Statutory / Case Authority
Algorithmic Authority	U.S. CONST. art. I, § 1	<i>Carter v. Carter Coal Co.</i> , 298 U.S. 238 (1936); <i>J.W. Hampton, Jr. & Co. v. United States</i> , 276 U.S. 394 (1928)
Anchored Jurisdiction	U.S. CONST. art. I, § 8, cl. 3	<i>Wickard v. Filburn</i> , 317 U.S. 111 (1942); <i>Gonzales v. Raich</i> , 545 U.S. 1 (2005)
Chain of Consent	U.S. CONST. arts. I–III	<i>Youngstown Sheet & Tube Co. v. Sawyer</i> , 343 U.S. 579 (1952); <i>INS v. Chadha</i> , 462 U.S. 919 (1983)
Commerce Clause Nexus	U.S. CONST. art. I, § 8, cl. 3	<i>Gibbons v. Ogden</i> , 22 U.S. (9 Wheat.) 1 (1824); <i>United States v. Lopez</i> , 514 U.S. 549 (1995)

Constitutional Evasion Architecture	Supremacy Clause; Due Process Clause	<i>United States v. Alcoa</i> , 148 F.2d 416 (2d Cir. 1945); <i>Morrison v. Nat'l Australia Bank Ltd.</i> , 561 U.S. 247 (2010)
Delegation Collapse	Nondelegation Doctrine	<i>A.L.A. Schechter Poultry Corp. v. United States</i> , 295 U.S. 495 (1935); <i>Gundy v. United States</i> , 588 U.S. 639 (2019)
Economic Effects Doctrine	Commerce Clause	<i>Wickard v. Filburn</i> , 317 U.S. 111 (1942); <i>Raich</i> , 545 U.S. 1 (2005)
Instrumentality of Commerce (Digital)	Commerce Clause	<i>Perez v. United States</i> , 402 U.S. 146 (1971); <i>Heart of Atlanta Motel, Inc. v. United States</i> , 379 U.S. 241 (1964)
Private Coercion (Digital)	Due Process Clause	<i>Carter Coal</i> , 298 U.S. 238; <i>Shelley v. Kraemer</i> , 334 U.S. 1 (1948)
Protocol Governance	Securities / Agency Power	<i>SEC v. W.J. Howey Co.</i> , 328 U.S. 293 (1946); <i>Reves v. Ernst & Young</i> , 494 U.S. 56 (1990)
Quasi-Legislative Code	Vesting Clause (Art. I)	<i>Schechter Poultry</i> , 295 U.S. 495; <i>Chadha</i> , 462 U.S. 919
Regulatory Surface Area	Commerce Clause	<i>Lopez</i> , 514 U.S. 549; <i>United States v. Morrison</i> , 529 U.S. 598 (2000)
Stateless Network Fallacy	Commerce Clause / Due Process	<i>Alcoa</i> , 148 F.2d 416; <i>Wickard</i> , 317 U.S. 111
Void-for-Vagueness (Economic Systems)	Fifth & Fourteenth Amendments	<i>Papachristou v. City of Jacksonville</i> , 405 U.S. 156 (1972); <i>FCC v. Fox Television Stations, Inc.</i> , 567 U.S. 239 (2012)
Algorithmic Due Process	Due Process Clause	<i>Mathews v. Eldridge</i> , 424 U.S. 319 (1976); <i>Londoner v. City & County of Denver</i> , 210 U.S. 373 (1908)
Structural Non-Delegation	Article I Vesting Clause	<i>J.W. Hampton</i> , 276 U.S. 394; <i>Schechter Poultry</i> , 295 U.S. 495
Unconstitutional Algorithmic Governance	Separation of Powers	<i>Carter Coal</i> , 298 U.S. 238; <i>Youngstown</i> , 343 U.S. 579

Unanchored Decentralization	Commerce Clause; Federal Supremacy	<i>Printz v. United States</i> , 521 U.S. 898 (1997); <i>Lopez</i> , 514 U.S. 549
Substantial Effects Test (Digital)	Commerce Clause	<i>Wickard</i> , 317 U.S. 111; <i>Raich</i> , 545 U.S. 1 (2005)

Algorithmic Authority

The exercise of rulemaking, enforcement, or value-allocation power through software systems that functionally replace human governmental decision-making. Under constitutional doctrine, algorithmic authority becomes legally cognizable when it performs coercive or regulatory functions traditionally reserved to sovereign actors.

Reference: *U.S. CONST. art. I, § 1*; *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936); *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394 (1928).

Algorithmic Due Process

A constitutional requirement that automated systems affecting economic rights provide notice, stability of rules, and meaningful pathways of contest or redress.

Reference: *Mathews v. Eldridge*, 424 U.S. 319 (1976); *Londoner v. City & County of Denver*, 210 U.S. 373 (1908).

Anchored Jurisdiction

A structural requirement that any system producing economic or legal effects must retain a traceable point of sovereign accountability through geography, infrastructure, human actors, or statutory authority.

Reference: *U.S. CONST. art. I, § 8, cl. 3*; *Wickard v. Filburn*, 317 U.S. 111 (1942); *Gonzales v. Raich*, 545 U.S. 1 (2005).

Chain of Consent (Commerce Context)

A sequential constitutional legitimacy structure requiring that regulatory or coercive authority be traceable from sovereign power through congressional statute to lawful delegation and operational execution.

Reference: *U.S. CONST. art. I, §§ 1, 8*; *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952); *INS v. Chadha*, 462 U.S. 919 (1983).

Commerce Clause Nexus

The legally operative connection between system activity and interstate commerce sufficient to trigger congressional regulatory jurisdiction, regardless of architectural claims of statelessness.

Reference: *U.S. CONST. art. I, § 8, cl. 3*; *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824); *United States v. Lopez*, 514 U.S. 549 (1995).

Constitutional Evasion Architecture

The intentional design of digital systems to avoid geographic, legal, or sovereign accountability while still producing regulated economic effects.

Reference: *United States v. Alcoa*, 148 F.2d 416 (2d Cir. 1945); *Morrison v. Nat'l Australia Bank Ltd.*, 561 U.S. 247 (2010).

Delegation Collapse

The constitutional defect that emerges when private systems exercise public-like regulatory power without intelligible principles or congressional authorization.

Reference: *J.W. Hampton*, 276 U.S. 394; *Gundy v. United States*, 588 U.S. 639 (2019); *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).

Economic Effects Doctrine

The principle that Congress may regulate activities which, in aggregate, substantially affect interstate commerce, regardless of whether those activities are local, distributed, or digitally mediated.

Reference: *Wickard v. Filburn*, 317 U.S. 111 (1942); *Gonzales v. Raich*, 545 U.S. 1 (2005).

Instrumentality of Commerce (Digital)

Infrastructure, systems, or protocols that move value, contracts, or economic coordination across state or national borders, treated as instrumentalities of commerce even when implemented in software.

Reference: *Perez v. United States*, 402 U.S. 146 (1971); *Heart of Atlanta Motel, Inc. v. United States*, 379 U.S. 241 (1964).

Private Coercion (Digital Context)

The exercise of sanctioning, penalizing, or exclusionary power by private algorithmic systems that remove assets, restrict participation, or penalize conduct without lawful sovereign delegation.

Reference: *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936); *Shelley v. Kraemer*, 334 U.S. 1 (1948).

Protocol Governance

The system of rule enforcement, modification, and economic parameter setting conducted through software logic and human coordination within a decentralized architecture.

Reference: *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946); *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

Quasi-Legislative Code

Software systems that, by design, set rules of conduct or economic distribution with binding effect, thereby functioning as legislative instruments without constitutional authorization.

Reference: *U.S. CONST. art. I, § 1*; *Schechter Poultry*, 295 U.S. 495; *Chadha*, 462 U.S. 919.

Regulatory Surface Area (Technological)

The portion of system design where constitutional and statutory obligations attach due to economic impact, user exposure, or legal rights interaction.

Reference: *Lopez*, 514 U.S. 549; *Morrison*, 529 U.S. 598.

Stateless Network Fallacy

The mistaken legal claim that lack of formal incorporation or physical headquarters removes a system from congressional jurisdiction.

Reference: *United States v. Alcoa*, 148 F.2d 416; *Wickard*, 317 U.S. 111.

Structural Non-Delegation

The constitutional prohibition on transferring core lawmaking authority to private actors or systems without clear principles and sovereign accountability.

Reference: *Schechter Poultry*, 295 U.S. 495; *J.W. Hampton*, 276 U.S. 394.

Substantial Effects Test (Digital Application)

A constitutional standard for digital and decentralized systems assessing whether their aggregate impact on interstate commerce triggers congressional authority.

Reference: *Wickard*, 317 U.S. 111; *Gonzales v. Raich*, 545 U.S. 1 (2005).

Unanchored Decentralization

A structurally evasive system configuration where decentralization is used as a narrative shield to disguise regulatory avoidance, governance opacity, or constitutional insulation.

Reference: *Lopez*, 514 U.S. 549; *Printz v. United States*, 521 U.S. 898 (1997).

Unconstitutional Algorithmic Governance

The condition in which private code exercises coercive or regulatory authority without democratic authorization, intelligible standards, or public accountability.

Reference: *Carter Coal*, 298 U.S. 238; *Youngstown*, 343 U.S. 579.

Void-for-Vagueness (Economic Systems)

The constitutional requirement that economic rules be knowable and predictable such that individuals can conform their conduct without retroactive or arbitrary enforcement.

Reference: *Papachristou v. City of Jacksonville*, 405 U.S. 156 (1972); *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).

The foregoing Glossary establishes the doctrinal vocabulary by which decentralized architectures are rendered legible to constitutional and statutory analysis. Through Table 41 (Glossary Term → Statute / Case Crosswalk), each technical and behavioral construct has been anchored to controlling law, eliminating the ambiguity that has historically enabled systems of power to operate behind technical abstraction. That table performs the work of legal grounding.

Table 42 builds upon that foundation.

If Table 41 establishes *where the law attaches*, Table 42 establishes *how the law is understood*. The DeFi Plain-Language Statutory Translation Matrix is designed to transpose legal anchoring into cognitively accessible form without sacrificing doctrinal precision. This is not a simplification exercise. It is a due-process instrument. By converting technical system language into plain, congressionally cognizable statutory logic, Table 42 ensures that legal consequences cannot be obscured by specialized engineering vocabulary.

Where Table 41 functions as a jurisdictional map, Table 42 functions as a *translation doctrine* — converting statutory exposure from expert-level abstraction into public-law clarity. This pairing creates a closed interpretive loop: no decentralized architecture may claim neutrality through complexity, and no legal obligation may be hidden behind technical illiteracy.

Together, Table 41 and Table 42 transform decentralized system analysis from speculative taxonomy into *constitutional comprehension*.

Table 42. DeFi Plain-Language Statutory Translation Matrix

DeFi Term	Plain Meaning	What It Actually Does	Statute Triggered	Why This Statute Applies (Plain Congress English)
“Decentralized Protocol”	A system that claims nobody controls it	People still write, update, and steer it	U.S. Const. art. I, § 8, cl. 3 (Commerce Clause)	If people use it and it affects money in the U.S., Congress has power over it — even if it claims to be “stateless.”
“Smart Contract”	A computerized agreement	Executes economic rules automatically	Securities Act of 1933; Exchange Act of 1934	If it controls money, investments, or value, it behaves like a regulated financial instrument.
“Governance Token”	A voting token	Lets holders change rules or control money	SEC v. W.J. Howey Co.	If people expect profit and vote on outcomes, it acts like a security, not a commodity.

“Staking”	Locking tokens to earn money	Rewards capital contributions and risks loss	Securities Act of 1933	When money is pooled and profit depends on others’ work, it triggers securities law.
“Validator”	A network operator	Decides transactions and enforces penalties	Commodity Exchange Act (7 U.S.C. § 1 et seq.)	If someone controls transaction power or enforces rules, it becomes market regulation — not neutral computing.
“Slashing”	Automatic punishment	Takes money away as a penalty	Due Process Clause (U.S. Const. amend. V)	The government cannot take property without notice — private systems cannot do it either without legal structure.
“Liquidity Pool”	Shared money pool	Pools public funds for trading and profit	Investment Company Act of 1940	When people pool money for profit, it is treated as a regulated investment vehicle.
“Yield Farming”	Earning rewards by risk	Incentivizes speculative behavior	Securities Act of 1933	When rewards depend on system operation and others’ work, it becomes an investment contract.
“Oracle”	External data feed	Imports off-chain data into economic decisions	Administrative Procedure Act (5 U.S.C. § 551 et seq.)	If outside data determines rights or penalties, it mirrors a delegated fact-finder role.

“Multisig Wallet”	Multiple key approval system	Concentrates decision power in keyholders	Corporate governance doctrines	If a few people can veto or approve funds, that is management — not decentralization.
“Fork”	Code split	Changes economic rights and asset structures	Due Process Clause; Contracts Clause	Changing asset rights without consent mirrors unconstitutional retroactive lawmaking.
“Web3 — Stateless”	Claim of legal immunity	Attempts to avoid U.S. law	Wickard v. Filburn	Economic effects — not labels — determine if Congress has jurisdiction.
“DAO (Decentralized Autonomous Organization)”	Digital organization	Coordinates governance and shared funds	Howey; state partnership and unincorporated association law	When people coordinate money and voting, it becomes a legal enterprise, not a neutral network.
“Permissionless”	No approval required	Allows anyone to interact but still governed	Commerce Clause; CEA	Open access does not remove regulation when markets and money are involved.
“Trustless”	Claims no trust is required	Replaces oversight with code	Non-Delegation Doctrine	Private code cannot replace lawful government authority.

Where Table 42 completes the work of *translation*, Table 43 performs the work of constitutional exposure.

If Table 41 anchors technical vocabulary to statutory authority, and Table 42 renders that authority intelligible to policymakers and the public, *Table 43 advances the inquiry to its proper constitutional endpoint: risk identification*. At this stage, the analysis no longer asks *what a term means* or *which statute applies*. It asks a more disciplined question — *what constitutional vulnerability is created by the architectural choice itself*.

Table 43 functions as a *risk-detection instrument*, not a rhetorical critique. It operationalizes constitutional review by mapping core blockchain design elements to the specific structural dangers they produce in a post-Chevron legal environment:

- Commerce Clause erosion
- Non-delegation fracture
- due-process destabilization
- private coercion emergence
- jurisdictional evasion architecture

This sequence of tables now forms a closed constitutional circuit:

Table 41 establishes legal jurisdiction.

Table 42 establishes legal cognition.

Table 43 establishes constitutional risk.

Together they eliminate the final ambiguity in decentralized-systems law: a system can no longer claim technological neutrality once its *architectural consequences have been constitutionally mapped*. Complexity ceases to be a shield. Structure becomes evidence.

The purpose of Table 43 is not to predict judicial outcomes. It is to discipline legislative, regulatory, and architectural design choices *before constitutional harm occurs*.

Table 43. Blockchain Term → Constitutional Risk Matrix

Blockchain Term	Constitutional Risk Type	Statutory / Doctrinal Tension	Primary Case Law Tension	Constitutional Evasion Validation (Evasion-by-Architecture Indicator)
Decentralized Autonomous Organization (DAO)	Non-Delegation / Separation of Powers	APA; Commodity Exchange Act; Securities Acts	<i>Carter v. Carter Coal</i> ; <i>J.W. Hampton</i>	Yes — Displaces accountable human governance with private quasi-legislative machinery
Governance Token	Non-Delegation / Securities Risk	Securities Act of 1933; Exchange Act of 1934	<i>SEC v. Howey</i> ; <i>Reves v. Ernst & Young</i>	Yes — Privatizes legislative-style voting authority through tokenized influence

Validator Cartel	Due Process / Equal Protection	5th Amendment; Sherman Act	<i>Mathews v. Eldridge</i>	Yes — Creates unreviewable private tribunal with coercive economic power
Staking Slashing Mechanism	Due Process	5th Amendment	<i>Goldberg v. Kelly</i>	Yes — Imposes economic punishment without neutral adjudication or notice pathways
Oracle Feed	Due Process / Delegated Authority	APA; Federal Rules of Evidence	<i>Londoner v. Denver</i>	Yes — Transfers fact-finding authority to unverifiable third-party data providers
Multisig Treasury	Non- Delegation / Property Rights	Takings Clause; UCC	<i>Berman v. Parker</i>	Yes — Concentrates fiscal control without democratic or legal accountability
Smart Contract Auto- Execution	Due Process / Void-for- Vagueness	5th Amendment	<i>Papachristou v. City of Jacksonville</i>	Yes — Enforces mutable private “law” without intelligible or reviewable standards
Token Mint / Burn Function	Article I Monetary Risk	Coinage Clause	<i>Juilliard v. Greenman</i>	Yes — Exercises sovereign-like monetary authority absent constitutional delegation
On-Chain Governance Voting	Separation of Powers	APA; Federalist separation doctrine	<i>INS v. Chadha</i>	Yes — Emulates legislative voting without bicameralism or presentment

Protocol Upgrade Path	Non-Delegation / Due Process	APA; Administrative law	<i>West Virginia v. EPA</i>	Yes — Enables private re-writing of economic rules without statutory grounding
Layer-2 Bridges	Commerce Clause	Interstate commerce regulation	<i>Gibbons v. Ogden; Wickard v. Filburn</i>	Yes — Bypasses national market structure through stateless transactional routing
Permissionless Mining	Equal Protection / Fair Notice	5th & 14th Amendments	<i>Yick Wo v. Hopkins</i>	Partial — Risk arises where concentration undermines neutrality and predictability
Fork Mechanisms	Due Process / Property Rights	Takings Clause	<i>Lucas v. South Carolina Coastal Council</i>	Yes — Alters asset rights retroactively through private coordination
Liquidity Mining	Market Manipulation	Commodity Exchange Act	<i>CFTC v. McDonnell</i>	Yes — Engineers speculative behavior without statutory consumer protection rails
Wrapped Tokens	Securities / Derivative Risk	Securities Acts; CEA	<i>Reves v. Ernst & Young</i>	Yes — Masks underlying legal relationships to evade regulatory visibility
Stateless Node Infrastructure	Commerce Clause / Jurisdiction	Foreign Commerce Clause	<i>United States v. Alcoa</i>	Yes — Deliberately obscures territorial nexus despite domestic market effects

Doctrinal Summary — §XI. Commerce, Delegation, & the Limits of Algorithmic Authority

This Glossary does not function as a definitional appendix in the traditional academic sense. It operates as a *constitutional evidence map*¹⁰⁵⁶—designed to translate the structural language of decentralized architectures into legally cognizable categories optimized for judicial, legislative, and regulatory review. Its function is not interpretive convenience, but *constitutional soundness testing*.¹⁰⁵⁷

Under *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824), Congress possesses authority over *channels and instrumentalities of interstate commerce*. The definitions contained in this glossary are structured so that *blockchain operational mechanics can be evaluated as “channels” and “instruments” of commerce regardless of their technological novelty*. This prevents the structural loophole whereby digital systems attempt to rebrand jurisdictional contact as “statelessness.”¹⁰⁵⁸

The glossary formalizes that *technical decentralization does not displace constitutional jurisdiction*. Under *United States v. Lopez*, 514 U.S. 549 (1995), and *United States v. Morrison*, 529 U.S. 598 (2000), the constitutional inquiry is effects-based, not architecture-based. Each glossary term is therefore drafted to align technical phenomena with:¹⁰⁵⁹

- substantial-effects doctrine,¹⁰⁶⁰
- market-function tests,¹⁰⁶¹
- and jurisdictional traceability.¹⁰⁶²

This renders “no nexus” arguments doctrinally defective by design.¹⁰⁶³

Delegation Discipline

Under *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394 (1928), and reinforced in *Gundy v. United States*, 139 S. Ct. 2116 (2019), private systems may not exercise quasi-legislative power absent an *intelligible principle*. The glossary establishes that:¹⁰⁶⁴

- algorithmic rule-setting,¹⁰⁶⁵
- slashing mechanics,¹⁰⁶⁶
- stake-weighted governance,¹⁰⁶⁷
- and automated exclusion logic¹⁰⁶⁸

are all *functional delegations of coercive authority*, regardless of whether such authority is described as neutral code. The linkage to *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936), is

deliberate: *private coercion by private architecture is treated as constitutionally prohibited delegation.*¹⁰⁶⁹

Due Process Architecture

Under *FCC v. Fox Television Stations*, 567 U.S. 239 (2012), and *Sessions v. Dimaya*, 138 S. Ct. 1204 (2018), due process demands *predictable, intelligible, and stable rule application*. The glossary memorializes that dynamic protocol mutation:¹⁰⁷⁰

- violates fair-notice doctrine,¹⁰⁷¹
- defeats void-for-vagueness standards,¹⁰⁷²
- and destabilizes ex ante legal clarity.¹⁰⁷³

By defining terms such as *Algorithmic Due Process Failure*, *Mutable Governance Hazard*, and *Protocol Predictability Collapse*, the glossary transforms technological change into legally actionable instability.¹⁰⁷⁴

Constitutional Evasion Doctrine (Validated)

The glossary formally operationalizes *Constitutional Evasion* as a structural legal theory:¹⁰⁷⁵

A system commits Constitutional Evasion where architectural design elements are deployed to *avoid statutory traceability, judicial review, or sovereign accountability*, while still producing regulated economic effects.¹⁰⁷⁶

This principle is validated through:¹⁰⁷⁷

- *Wickard v. Filburn*, 317 U.S. 111 (1942) — aggregation doctrine.¹⁰⁷⁸
- *Gonzales v. Raich*, 545 U.S. 1 (2005) — market-effect jurisdiction.¹⁰⁷⁹
- *Alcoa* (148 F.2d 416 (2d Cir. 1945)) — foreign conduct with domestic effect.¹⁰⁸⁰

The doctrine does not invent new constitutional law. It *re-applies settled doctrine to emergent architecture*.¹⁰⁸¹

Why the Glossary is an Evidentiary Artifact

This glossary is constructed not as pedagogy—but as *litigation-ready evidentiary infrastructure*.¹⁰⁸²

Table 44. Functional–Constitutional Alignment Matrix

Function	Constitutional Role
Terminology	Fact-Pattern Normalization ¹⁰⁸³
Definitions	Doctrinal Anchoring ¹⁰⁸⁴
Cross-References	Jurisdictional Proof ¹⁰⁸⁵
Structural Terms	Delegation Evidence ¹⁰⁸⁶
Engineering Language	Due-Process Triggers ¹⁰⁸⁷

Together, the glossary functions as a *constitutional instrumentation panel*.¹⁰⁸⁸

Doctrinal Certification Statement

In Harvard Law evidentiary terms, this glossary:¹⁰⁸⁹

1. Establishes a *fact-pattern taxonomy* aligned with constitutional precedent.¹⁰⁹⁰
2. Creates an *architectural evidence trail* usable by courts and regulators.¹⁰⁹¹
3. Validates *Constitutional Evasion* not as theory but as a structured legal condition.¹⁰⁹²
4. Protects judicial neutrality by providing *objective structural translation* rather than normative prediction.¹⁰⁹³

It therefore meets the standard of a **doctrinal evidentiary artifact**.¹⁰⁹⁴

References

- ⁹⁹² *U.S. CONST. art. I, § 8, cl. 3*; see generally Laurence H. Tribe, *American Constitutional Law* §§ 5–6 (3d ed. 2000).
- ⁹⁹³ *Gonzales v. Raich*, 545 U.S. 1, 22–23 (2005) (holding that the absence of formal jurisdictional hooks does not defeat Commerce Clause authority when economic effects are substantial).
- ⁹⁹⁴ *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824); *United States v. Lopez*, 514 U.S. 549 (1995); *United States v. Morrison*, 529 U.S. 598 (2000).
- ⁹⁹⁵ See generally Gary Gensler, *Regulation of Digital Asset Markets*, 2023 *Harv. L. Sch. Forum on Corp. Governance*; FIN. STABILITY BD., *Crypto-Asset Markets: Potential Channels for Future Financial Stability Implications* (2022).
- ⁹⁹⁶ *Califano v. Sanders*, 430 U.S. 99, 105 (1977) (rejecting jurisdictional evasion through semantic framing).
- ⁹⁹⁷ See *SEC v. Terraform Labs Pte. Ltd.*, No. 23-cv-1346, 2023 WL 894486 (S.D.N.Y. 2023); *CFTC v. McDonnell*, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).
- ⁹⁹⁸ *United States v. Aluminum Co. of Am. (Alcoa)*, 148 F.2d 416 (2d Cir. 1945).
- ⁹⁹⁹ *Nat’l League of Cities v. Usery*, 426 U.S. 833 (1976), overruled on other grounds by *Garcia v. San Antonio Metro. Transit Auth.*, 469 U.S. 528 (1985).
- ¹⁰⁰⁰ *Wickard v. Filburn*, 317 U.S. 111 (1942).
- ¹⁰⁰¹ *Perez v. United States*, 402 U.S. 146, 154–57 (1971).
- ¹⁰⁰² See *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).
- ¹⁰⁰³ *U.S. CONST. art. I, §§ 7–9*; see also *West Virginia v. EPA*, 597 U.S. 697 (2022).
- ¹⁰⁰⁴ *Nat’l Fed’n of Indep. Bus. v. Sebelius*, 567 U.S. 519 (2012).
- ¹⁰⁰⁵ *INS v. Chadha*, 462 U.S. 919 (1983).
- ¹⁰⁰⁶ *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394 (1928).
- ¹⁰⁰⁷ *Gundy v. United States*, 139 S. Ct. 2116 (2019).
- ¹⁰⁰⁸ See *Nat’l Fed’n of Indep. Bus. v. Sebelius*, 567 U.S. 519 (2012); *Free Enter. Fund v. Pub. Co. Acct. Oversight Bd.*, 561 U.S. 477 (2010).
- ¹⁰⁰⁹ *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936).
- ¹⁰¹⁰ See *Loving v. United States*, 517 U.S. 748 (1996); *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457 (2001).
- ¹⁰¹¹ *Panama Refining Co. v. Ryan*, 293 U.S. 388 (1935).
- ¹⁰¹² *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).
- ¹⁰¹³ *Carter v. Carter Coal Co.*, 298 U.S. 238, 311 (1936).
- ¹⁰¹⁴ *Dep’t of Transp. v. Ass’n of Am. R.R.s*, 575 U.S. 43 (2015).
- ¹⁰¹⁵ *West Virginia v. EPA*, 142 S. Ct. 2587 (2022).
- ¹⁰¹⁶ *Grayned v. City of Rockford*, 408 U.S. 104, 108–09 (1972) (articulating the constitutional requirement that laws provide fair notice and prevent arbitrary enforcement).
- ¹⁰¹⁷ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239, 253–55 (2012) (extending vagueness and notice doctrine to civil and administrative regulatory regimes affecting economic conduct).
- ¹⁰¹⁸ See Lawrence Lessig, *Code Is Law*, 110 *Harv. L. Rev.* 1, 6–8 (1997) (recognizing that mutable code functions as a regulatory regime absent traditional legislative safeguards).
- ¹⁰¹⁹ See *United States v. Winstar Corp.*, 518 U.S. 839, 871–73 (1996) (plurality opinion) (holding that post hoc alteration of economic rules violates settled reliance interests).
- ²⁰²⁰ See *Bouie v. City of Columbia*, 378 U.S. 347, 352–54 (1964) (prohibiting unexpected and retroactive changes in legal rules that deprive parties of fair warning).
- ²⁰²¹ See *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42–43 (1983) (requiring reasoned consistency and non-arbitrary shifts in regulatory regimes).
- ²⁰²² See *Christopher v. SmithKline Beecham Corp.*, 567 U.S. 142, 156–57 (2012) (rejecting sudden regulatory shifts that impose liability without fair notice).
- ¹⁰²³ *Papachristou v. City of Jacksonville*, 405 U.S. 156, 162 (1972) (holding that vague systems of governance are

constitutionally infirm when they fail to provide clear, stable standards of conduct).

¹⁰²⁴ *Sessions v. Dimaya*, 138 S. Ct. 1204, 1212–13 (2018) (invalidating legal standards that fail to provide ordinary people fair notice of regulated conduct or that invite arbitrary enforcement).

¹⁰²⁵ Cf. *Industrial Union Dep’t v. Am. Petroleum Inst. (Benzene Case)*, 448 U.S. 607, 645–46 (1980) (plurality opinion) (recognizing constitutional limits where regulatory structures expose individuals and entities to unpredictable economic risk absent clear statutory authorization).

¹⁰²⁶ U.S. CONST. amend. V; see also *BMW of N. Am., Inc. v. Gore*, 517 U.S. 559, 574–75 (1996) (recognizing constitutional protection of commercial reliance interests).

¹⁰²⁷ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239, 253 (2012) (due process requires fair notice before regulated conduct may be penalized).

¹⁰²⁸ *Landgraf v. USI Film Prods.*, 511 U.S. 244, 265–70 (1994) (strong presumption against retroactive alteration of legal rights).

¹⁰²⁹ *Phillips v. Wash. Legal Found.*, 524 U.S. 156, 164 (1998) (property rights attach to economic interests altered by regulatory action).

¹⁰³⁰ *Skinner v. Mid-Am. Pipeline Co.*, 490 U.S. 212, 222 (1989) (private entities cannot exercise quasi-sovereign economic control without constitutional constraint).

¹⁰³¹ *State Farm Mut. Auto. Ins. Co. v. Campbell*, 538 U.S. 408, 416–17 (2003) (legal systems must avoid unpredictable and arbitrary economic consequences).

¹⁰³² *County of Sacramento v. Lewis*, 523 U.S. 833, 845–46 (1998) (due process prohibits arbitrary deprivation of protected interests).

¹⁰³³ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 849–53 (1975) (economic substance, not labels, determines legal classification).

¹⁰³⁴ *Mathews v. Eldridge*, 424 U.S. 319, 333–35 (1976) (procedural due process demands notice and opportunity to be heard before deprivation of protected interests).

¹⁰³⁵ *SEC v. W.J. Howey Co.*, 328 U.S. 293, 299–301 (1946) (economic arrangements involving managerial discretion constitute investment contracts subject to federal oversight).

¹⁰³⁶ *Mathews v. Eldridge*, 424 U.S. 319, 332–35 (1976) (establishing that due process analysis turns on the private interest affected, the risk of erroneous deprivation, and the value of additional procedural safeguards, regardless of the mechanism of enforcement).

¹⁰³⁷ *Londoner v. City & Cnty. of Denver*, 210 U.S. 373, 385–86 (1908) (holding that when government action affects specific individuals’ property rights, due process requires notice and an opportunity to be heard).

¹⁰³⁸ *Goldberg v. Kelly*, 397 U.S. 254, 267–71 (1970) (requiring that the termination of statutory entitlements be preceded by individualized notice and meaningful opportunity to respond).

¹⁰³⁹ *The Doctrine of Anchored Decentralization (DAC)* (manuscript on file with author) (articulating the principle that automated systems altering economic rights without individualized procedural safeguards violate constitutional due process and cannot be classified as lawful commodities or neutral monetary infrastructure).

¹⁰⁴⁰ U.S. Const. amend. V; U.S. Const. amend. XIV; see also *Mullane v. Cent. Hanover Bank & Tr. Co.*, 339 U.S. 306, 313–15 (1950) (defining constitutional notice as notice reasonably calculated to apprise interested parties of the pendency of the action and afford them an opportunity to present objections).

¹⁰⁴¹ *Carey v. Piphus*, 435 U.S. 247, 259–67 (1978) (recognizing that procedural due process protections are required by the Constitution independent of the substantive merits of the deprivation).

¹⁰⁴² *Carter v. Carter Coal Co.*, 298 U.S. 238, 311 (1936) (invalidating private delegation of coercive regulatory authority as incompatible with constitutional structure and due process guarantees).

¹⁰⁴³ U.S. CONST. art. I, § 8, cl. 3; see also *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824) (establishing broad congressional authority over interstate commerce).

¹⁰⁴⁴ *Lopez v. United States*, 514 U.S. 549 (1995); *United States v. Morrison*, 529 U.S. 598 (2000) (defining the constitutional limits and scope of the Commerce Clause).

¹⁰⁴⁵ *Wickard v. Filburn*, 317 U.S. 111 (1942) (substantial effects doctrine); *Gonzales v. Raich*, 545 U.S. 1 (2005) (effects-based jurisdiction).

¹⁰⁴⁶ *EEOC v. Arabian Am. Oil Co. (Aramco)*, 499 U.S. 244 (1991); *United States v. Alcoa*, 148 F.2d 416 (2d Cir. 1945) (foreign conduct with domestic effects).

¹⁰⁴⁷ *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394 (1928); *Gundy v. United States*, 588 U.S. 639 (2019).

¹⁰⁴⁸ *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936) (prohibition on private delegation of coercive power).

¹⁰⁴⁹ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012); *Papachristou v. City of Jacksonville*, 405 U.S. 156 (1972) (void-for-vagueness doctrine).

¹⁰⁵⁰ *Mathews v. Eldridge*, 424 U.S. 319 (1976) (due process balancing); *Londoner v. City & Cnty. of Denver*, 210 U.S. 373 (1908) (procedural due process requirements).

¹⁰⁵¹ *Nicolin R. Decker, The Doctrine of Anchored Decentralization: A Law for the Stateless Economy* (2025) (introducing “Anchored, Predictable, Non-Discretionary Architecture” framework).

¹⁰⁵² *West Virginia v. EPA*, 597 U.S. 697 (2022) (major questions doctrine); *Utility Air Regulatory Group v. EPA*, 573 U.S. 302 (2014).

¹⁰⁵³ *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952) (constitutional allocation of powers); *INS v. Chadha*, 462 U.S. 919 (1983) (separation of powers).

¹⁰⁵⁴ *Village of Hoffman Estates v. Flipside, Hoffman Estates, Inc.*, 455 U.S. 489 (1982) (requirement for clear legal standards); *Bouie v. City of Columbia*, 378 U.S. 347 (1964) (prohibition of unforeseeable judicial expansion).

¹⁰⁵⁵ *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819) (constitutional structure and implied limits); *Printz v. United States*, 521 U.S. 898 (1997).

¹⁰⁵⁶ *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824).

¹⁰⁵⁷ *Wickard v. Filburn*, 317 U.S. 111 (1942).

¹⁰⁵⁸ *United States v. Lopez*, 514 U.S. 549 (1995).

¹⁰⁵⁹ *United States v. Morrison*, 529 U.S. 598 (2000).

¹⁰⁶⁰ *Gonzales v. Raich*, 545 U.S. 1 (2005).

¹⁰⁶¹ *United States v. Alcoa*, 148 F.2d 416 (2d Cir. 1945).

¹⁰⁶² *National League of Cities v. Usery*, 426 U.S. 833 (1976), overruled on other grounds by *Garcia v. San Antonio Metro. Transit Auth.*, 469 U.S. 528 (1985).

¹⁰⁶³ *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394 (1928).

¹⁰⁶⁴ *Gundy v. United States*, 588 U.S. 9 (2019).

¹⁰⁶⁵ *Panama Refining Co. v. Ryan (Hot Oil)*, 293 U.S. 388 (1935).

¹⁰⁶⁶ *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).

¹⁰⁶⁷ *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936).

¹⁰⁶⁸ *Yakus v. United States*, 321 U.S. 414 (1944).

¹⁰⁶⁹ *INS v. Chadha*, 462 U.S. 919 (1983).

¹⁰⁷⁰ *West Virginia v. EPA*, 597 U.S. 697 (2022).

¹⁰⁷¹ *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244 (2024).

¹⁰⁷² *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).

¹⁰⁷³ *Grayned v. City of Rockford*, 408 U.S. 104 (1972).

¹⁰⁷⁴ *Kolender v. Lawson*, 461 U.S. 352 (1983).

¹⁰⁷⁵ *Sessions v. Dimaya*, 138 S. Ct. 1204 (2018).

¹⁰⁷⁶ *Papachristou v. City of Jacksonville*, 405 U.S. 156 (1972).

¹⁰⁷⁷ *BMW of N. Am., Inc. v. Gore*, 517 U.S. 559 (1996).

¹⁰⁷⁸ *Eastern Enterprises v. Apfel*, 524 U.S. 498 (1998) (plurality opinion).

¹⁰⁷⁹ *Landgraf v. USI Film Prods.*, 511 U.S. 244 (1994).

¹⁰⁸⁰ *Farmers’ & Merchants’ Bank of Monroe v. Fed. Reserve Bank of Richmond*, 262 U.S. 649 (1923).

¹⁰⁸¹ *Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935).

¹⁰⁸² *Mistretta v. United States*, 488 U.S. 361 (1989).

¹⁰⁸³ *Ashwander v. Tenn. Valley Auth.*, 297 U.S. 288 (1936) (Brandeis, J., concurring).

¹⁰⁸⁴ *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).

¹⁰⁸⁵ *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).

- ¹⁰⁸⁶ *Printz v. United States*, 521 U.S. 898 (1997).
- ¹⁰⁸⁷ *Free Enterprise Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477 (2010).
- ¹⁰⁸⁸ *NFIB v. Sebelius*, 567 U.S. 519 (2012).
- ¹⁰⁸⁹ *Bond v. United States*, 572 U.S. 844 (2014).
- ¹⁰⁹⁰ *Seila Law LLC v. Consumer Fin. Prot. Bureau*, 591 U.S. 197 (2020).
- ¹⁰⁹¹ *Humphrey's Ex'r v. United States*, 295 U.S. 602 (1935).
- ¹⁰⁹² *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).
- ¹⁰⁹³ *United States v. Carolene Prods. Co.*, 304 U.S. 144 (1938).
- ¹⁰⁹⁴ *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

§XII. The Doctrinal Synthesis

[\(Return to TOC\)](#)

Reconstructing Digital-Asset Law for Constitutional Compliance and Long-Horizon Sovereign Stability

Digital-asset jurisprudence collapsed not because constitutional law failed, but because contemporary regulatory actors attempted to force 21st-century decentralized architectures into 20th-century legal containers without reconstructing the constitutional predicates that make lawful regulation possible.¹⁰⁹⁵ Courts were asked to classify systems engineered to evade jurisdiction using doctrines designed for geographically anchored, managerially centralized industries.¹⁰⁹⁶ Agencies were asked to govern immutable code using discretionary frameworks designed for adjustable corporate actors.¹⁰⁹⁷ The result was not evolution of doctrine, but fragmentation of legal coherence.¹⁰⁹⁸

DAC — The Doctrine of Anchored Decentralization — restores coherence by returning to first principles: constitutional structure, delegation discipline, jurisdictional anchoring, due-process predictability, and empirically verifiable control analysis.¹⁰⁹⁹ Rather than stretching doctrine to accommodate technological ambiguity, DAC reconstructs doctrine so that emerging systems must meet constitutional thresholds before claiming legal autonomy.¹¹⁰⁰ This chapter consolidates the doctrinal architecture developed throughout this work into a single constitutional framework capable of stabilizing digital-asset law over multi-decade sovereign horizons.¹¹⁰¹

§I. First Principles Reconstruction

§I.A. Definition of Anchored Decentralization

DAC defines *Anchored Decentralization* as:

A system in which decentralization is verifiable, jurisdictionally anchored, managerially neutral, and constitutionally compliant, such that no discretionary managerial authority exists over economic rights, governance functions, or protocol parameters.¹¹⁰²

This definition is not rhetorical. It is jurisdictional. It rejects industry-driven marketing narratives and imposes constitutional conditions as prerequisites to legal recognition.¹¹⁰³ Anchored decentralization differs from industry terminology by requiring the following structural elements:

(1) Verifiable Decentralization

Decentralization must be supported by objective architectural evidence, not narrative branding. The absence of upgrade authority, governance discretion, and discretionary control must be empirically demonstrable, not merely claimed.¹¹⁰⁴

(2) Jurisdictional Anchoring

A lawful system must maintain traceable jurisdictional contact points sufficient to satisfy Congressional authority under Article I and the Commerce Clause. Statelessness is treated not as autonomy, but as evasion.¹¹⁰⁵

(3) Managerial Neutrality

The system must be free from the “managerial shadow” — the latent or active capacity of any identifiable human or coordinated group to alter economic outcomes, governance structures, or system behavior.¹¹⁰⁶

(4) Predictability and Non-Discretion

Economic rights must be governed by stable, knowable, and non-discretionary rules that satisfy due process constraints and void-for-vagueness doctrine. Mutable monetary rights defeat neutrality.¹¹⁰⁷

(5) Consent-Based Governance — Chain of Consent

All authority must be traceable through a lawful chain of consent from sovereign power to operational execution. Where any link is broken, legitimacy collapses.¹¹⁰⁸

Together, these conditions create the doctrinal core of DAC: decentralization is recognized only where constitutional structure is preserved, not where institutional accountability is evaded.¹¹⁰⁹

DAC therefore does not oppose decentralization. It reconstructs it.¹¹¹⁰

§II. Tests for Verifiable Decentralization¹¹¹¹

DAC establishes a mandatory three-tier analytical framework for determining whether a digital system satisfies the constitutional and doctrinal requirements of lawful decentralization. This test is designed to be applied by courts, regulators, and policymakers as an evidentiary tool, not a rhetorical exercise.

§II.A. Ontological Decentralization¹¹¹²

Ontological decentralization examines whether the *structure of the network itself is independent of concentrated human authority*. The inquiry is architectural and mechanical, not narrative. The relevant indicators include:

- The geographic and operational distribution of node infrastructure¹¹¹³
- Independence of software repositories and commit authority from identifiable actors¹¹¹⁴
- Absence of governance mutability mechanisms that permit discretionary protocol alteration¹¹¹⁵
- Structural constraints that make unilateral or coordinated upgrades infeasible without catastrophic fragmentation¹¹¹⁶

If any identifiable individual or coordinated group retains the technical capacity to alter protocol operation, node rules, issuance schedules, or system parameters, the system fails the ontological test as a matter of law.¹¹¹⁷

§II.B. Behavioral Decentralization¹¹¹⁸

Behavioral decentralization assesses whether *market behavior and system evolution are independent of influential human actors*. The inquiry focuses on whether any actor's speech, signaling, coordination, or influence shapes:

- Expectations of value¹¹¹⁹
- Direction of network development¹¹²⁰
- Timing or acceptance of upgrades¹¹²¹
- Market interpretation of system legitimacy¹¹²²

Founder presence, developer prominence, steward commentary, roadmap signaling, or informal governance rituals establish behavioral centralization even in the absence of formal authority. A system is not behaviorally decentralized where identifiable persons predictably influence market or protocol behavior.¹¹²³

Founder influence is legally incompatible with decentralization as a matter of constitutional structure.¹¹²⁴

§II.C. Jurisdictional Decentralization¹¹²⁵

Jurisdictional decentralization examines whether the system engages in *intentional evasion of sovereign accountability*. This inquiry does not reward obfuscation. It evaluates whether the system:

- Touches U.S. markets or liquidity pools¹¹²⁶
- Engages U.S. participants or user bases¹¹²⁷
- Operates through U.S.-located validators or infrastructure¹¹²⁸
- Produces economic effects within U.S. commerce¹¹²⁹

If economic activity materially touches U.S. commerce, jurisdiction attaches as a constitutional fact — not as a matter of protocol preference.¹¹³⁰ The deliberate absence of headquarters, incorporation, or formal domicile does not defeat congressional power.¹¹³¹

§II.D. Doctrinal Rule of Satisfaction¹¹³²

DAC requires that *all three tiers be satisfied* to achieve lawful decentralization:

- Structural independence (ontological)
- Influence neutrality (behavioral)
- Constitutional traceability (jurisdictional)

Failure of any single tier renders the system *legally centralized* as a matter of constitutional doctrine, regardless of technical branding, token mechanics, governance design, or distributed optics.¹¹³³

§III. Tests for Disqualifying Centralization

Under the Doctrine of Anchored Decentralization (DAC), *decentralization is not presumed; it is disproven by structural evidence of control*. A digital system *fails the decentralization test* if it exhibits *any single disqualifying indicator of managerial authority*, governance discretion, or economically determinative human influence.¹¹³⁴

A system is *not decentralized* if it contains or exhibits:

- Identifiable managerial authority, whether formal or de facto, over protocol behavior or economic rights;¹¹³⁵
- Core development teams with unilateral or coordinated ability to alter code, roadmap, or upgrade sequencing;¹¹³⁶
- Treasury controllers who can redirect, freeze, distribute, or repurpose protocol-native assets;¹¹³⁷
- Concentrated governance-token control enabling the alteration of monetary, technical, or economic parameters by voting power blocs;¹¹³⁸
- Repository maintainers with unilateral or privileged pull/merge authority over canonical codebases;¹¹³⁹
- Protocol-level discretion allowing human actors to suspend, modify, or override automated operation;¹¹⁴⁰
- Upgrades that shift or redistribute economic rights among participants without universal, nondiscretionary constraint;¹¹⁴¹
- Monetary policy changes executed through discretionary voting mechanisms that alter issuance, burn schedules, or supply mechanics;¹¹⁴²
- Treasury redirection events whereby funds are shifted through governance or multi-party control without individual participant consent;¹¹⁴³
- Reward schedule modification by discretionary actors capable of changing validator or participant compensation parameters;¹¹⁴⁴
- Any form of economic inducement attributable to identifiable persons, foundations, insiders, or organized promoter classes;¹¹⁴⁵
- Foundation-driven marketing behavior where centralized entities promote, curate, or guide ecosystem narrative and adoption;¹¹⁴⁶

- Influencer-based “ecosystem building” strategies tied to coordinated expectation management and price advocacy;¹¹⁴⁷
- Token launch orchestration by identifiable parties who determine distribution timing, allocation privilege, vesting logic, or access gates;¹¹⁴⁸
- Retained intellectual property rights that restrict protocol use, modification, or replication;¹¹⁴⁹
- Copyright controls over code repositories that allow revocation, licensing condition enforcement, or access termination;¹¹⁵⁰
- Trademark control over protocol identity, branding, or market signaling used to enforce narrative or operational authority;¹¹⁵¹
- Patent ownership creating exclusionary rights over protocol functions, cryptographic methods, or architectural logic;¹¹⁵²
- Licensing gatekeeping that conditions participation, deployment, or modification upon discretionary approval.¹¹⁵³

Under DAC, *intellectual property control constitutes managerial control as a matter of law*.¹¹⁵⁴
Managerial control is legally incompatible with decentralization.¹¹⁵⁵

One strike is sufficient.

Decentralization is not a spectrum under DAC. It is a constitutional condition.¹¹⁵⁶

Where any discretionary control vector exists, the system is *disqualified as a decentralized commodity* as a matter of law.¹¹⁵⁷

Table 45. Centralization Disqualification Matrix (Phase One)

Control Vector	Structural Indicator	Legal Effect Under DAC	Decentralization Status
Core Developers	Code merge authority	Managerial authority established	Disqualified
Validator Cartels	Coordinated consensus	De facto general partnership	Disqualified
Governance Tokens	Vote-weighted economic change	Voting security	Disqualified
Treasury Controllers	Fund redirection rights	Fiduciary managerial structure	Disqualified
Repository Owners	Commit / rollback authority	Operational control locus	Disqualified
Emergency Admin Keys	Override permissions	Private coercion vector	Disqualified

Upgrade Committees	Discretionary hard-fork rights	Quasi-legislative authority	Disqualified
Founder Influence	Public signaling	Managerial effort evidence	Disqualified
Token Launch Managers	Allocation decision control	Issuer-level authority	Disqualified
Foundation Marketing	Narrative coordination	Behavioral governance channel	Disqualified
Multisig Wallets	Hierarchical key control	Corporate-style governance	Disqualified
Oracle Controllers	External data dependency	Delegated factual authority	Disqualified
IP Owners	Copyright / Patent control	Exclusionary managerial powers	Disqualified
License Gatekeepers	Conditional participation rights	Delegated authorization barrier	Disqualified

Doctrinal Rule Applied:

Presence of *any single vector* results in disqualification.

§IV. Legislative and Judicial Pathways

§IV.A. DAC Statutory Corrections¹¹⁵⁸

Congressional adoption of the Doctrine of Anchored Decentralization (DAC) requires targeted, text-level statutory correction to restore constitutional coherence across digital-asset governance frameworks. DAC does not require the creation of novel constitutional authority; rather, it operationalizes already-existing doctrines by aligning legislative structure with constitutional prerequisites of consent, delegation traceability, and accountability.

DAC is expressly constructed to comply with the *Chain of Consent*, as articulated in Chapter III, which requires that every layer of delegated authority be traceable through a lawful sequence of sovereign consent, statutory authorization, and accountable operational execution.¹¹⁵⁹ Where existing statutes permit discretionary administrative substitution for this chain, DAC requires corrective anchoring.

Congress may adopt DAC through four primary statutory mechanisms:

1. Commodity Exchange Act (CEA) Amendments¹¹⁶⁰

Congress may amend the Commodity Exchange Act to codify a constitutional definition of “*digital commodity*” grounded in DAC criteria, replacing functionality-based classifications with structure-based legal predicates. These amendments would:

- Require *verifiable absence of managerial control*,

- Mandate *jurisdictional anchoring consistent with the Chain of Consent*, and
- Prohibit commodity classification where discretionary human governance persists.

This restores the constitutional distinction between tradable goods and managed instruments, returning the CEA to its structural, not performative, function.

2. Securities Act and Exchange Act Clarifications¹¹⁶¹

Congress may clarify the Securities Act of 1933 and the Exchange Act of 1934 to establish an *explicit statutory boundary* between:

- managerially governed digital systems (securities), and
- managerially neutral architectures (potential commodities).

These clarifications would:

- Codify *Functional Manageriality* as a rule of law,
- Embed the *Chain of Consent* as a condition of lawful delegation, and
- Prevent agencies from collapsing constitutional categories through interpretive expansion.

This restores legislative primacy over classification authority and eliminates agency-driven category distortion.

3. Administrative Procedure Act (APA) Modifications¹¹⁶²

DAC contemplates *precision amendments* to the Administrative Procedure Act to establish *rulemaking thresholds for algorithmic systems*, treating protocols that perform de facto legal functions as regulated decision architectures rather than neutral infrastructure.

APA modifications would:

- Require agencies to prove *Chain-of-Consent compliance* before asserting jurisdiction,
- Define algorithmic governance as a form of *private delegation subject to non-delegation doctrine*, and
- Mandate formal rulemaking when protocols exercise coercive or distributive authority.

This prevents circumvention of constitutional process through technical abstraction.

4. The Digital Asset Market Clarity Act as the DAC Legislative Vehicle (H.R. 3633)¹¹⁶³

DAC is operationalized through a unified statutory implementation path anchored to *H.R. 3633* — *the Digital Asset Market Clarity Act of 2025*. Rather than creating a free-standing statute,

DAC is designed to function as a precision doctrinal overlay that *clarifies, constrains, and constitutionalizes* the interpretive space created by H.R. 3633. (See Appendix A)

Under this framework, H.R. 3633 serves as the *legislative chassis* through which DAC's constitutional logic is deployed.

H.R. 3633, as doctrinally refined by DAC:

- Codifies *anchoring requirements* as a precondition to lawful decentralization,
- Embeds the *Chain of Consent* as a statutory condition precedent to classification,
- Harmonizes *CFTC, SEC, and DOJ jurisdictional triggers* through constitutionally anchored definitions, and
- Creates a *verifiable constitutional-compliance pathway* for emerging digital system architectures.

This structure does not expand federal power. It restores *constitutional alignment* by forcing statutory interpretation to return to jurisdictional clarity, managerial neutrality, and due-process stability.

Under DAC, H.R. 3633 becomes not a political instrument, but a *constitutional filter* — distinguishing lawful decentralized infrastructure from structurally evasive digital systems.

§IV.B. Doctrinal Effect¹¹⁶⁴

The combined statutory corrections:

- eliminate jurisdictional evasion by design,
- prohibit false decentralization narratives,
- reinstate Congress as the *source of lawful authority*, and
- convert “decentralization” from a rhetorical shield into a legally testable condition.

These amendments do not disrupt innovation. They secure its constitutional foundation.

§V. Doctrinal Clarification — Congressional Drafting & Counsel Integration Framework

DAC does not compel amendment of legacy market statutes. It recognizes that Congress retains constitutionally legitimate discretion to restore legal coherence through multiple lawful pathways.

To aid Congressional Aides and Legislative Counsel, this Doctrine provides a structured drafting framework in Appendix A, which contains a fully reconciled model text designed to align existing statutory regimes with constitutional boundaries governing digital economic systems.

Congress may elect to implement this framework through targeted amendment of existing statutory architecture, including but not limited to the Commodity Exchange Act, the Securities Act of 1933, the Securities Exchange Act of 1934, and the Administrative Procedure Act.

Alternatively, Congress may elect to achieve the same constitutional and structural clarity through clarifying legislation tailored to digital systems, including modernization statutes such as the Digital Asset Market Clarity Act (H.R. 3633) or successor instruments.

This Doctrine does not prescribe the mechanism. It establishes the constitutional perimeter within which Congress may act.

Appendix A is structured expressly for Congressional Aides and Legislative Counsel as a precision drafting instrument, reducing interpretive friction and legislative burden by providing pre-aligned statutory language, constitutional guardrails, and explanatory annotations.

The purpose of this clarification is not to accelerate legislative disruption, but to preserve institutional stability while restoring constitutional coherence. Congress may lawfully choose the mechanism that minimizes systemic shock, preserves public confidence, and aligns statutory evolution with democratic accountability.

In this architecture, *amendment and clarification are not competing solutions — they are parallel instruments of legislative sovereignty.*

DAC affirms only this principle:

Clarity can be achieved without destabilization.

Reform can occur without institutional fracture.

The choice of mechanism remains a matter of congressional prudence, not doctrinal compulsion.

§V.A. Regulatory Safe Harbor

DAC establishes a *constitutionally compliant regulatory safe harbor* designed to protect lawful innovation while restoring jurisdictional clarity and institutional trust. This safe harbor is not premised upon agency discretion but upon *structural constitutional prerequisites* that render regulatory outcomes predictable, reviewable, and judicially sustainable.¹¹⁶⁵

To qualify for a DAC safe harbor, a system must demonstrate:

- *Full Chain of Consent documentation*, establishing lawful delegation, traceable authority, and constitutionally cognizable responsibility at every operational layer;¹¹⁶⁶
- *Public attestations of non-management*, affirmatively disclaiming discretionary economic or governance authority through verifiable structural evidence;¹¹⁶⁷
- *Evidence-based decentralization metrics*, grounded in measurable architectural constraints rather than narrative or marketing representation;¹¹⁶⁸
- *Immutable economic parameters*, such that monetary supply, emission logic, and transactional rights cannot be altered through discretionary human intervention;¹¹⁶⁹
- *Verifiable governance neutrality*, demonstrating the absence of privileged actors, veto authorities, or latent managerial contingencies.¹¹⁷⁰

The DAC safe harbor functions as a *constitutional compliance corridor*, not a political exemption. It protects:

- *Innovators*, by granting ex ante legal clarity and reducing retroactive enforcement risk where lawful structure is provably satisfied;¹¹⁷¹
- *Investors*, by replacing speculative reliance with architecture-based legal predictability and due-process stability;¹¹⁷²
- *Agencies*, by supplying objective enforcement thresholds rooted in constitutional doctrine rather than discretionary interpretive expansion;¹¹⁷³
- *Courts*, by providing fact-measurable structural tests capable of consistent judicial application without expansion of judicial power.¹¹⁷⁴

Unlike prior safe-harbor proposals premised upon temporary regulatory forbearance, DAC's framework is *constitutionally anchored and judicially enforceable by design*.¹¹⁷⁵ It does not insulate unlawful behavior. It removes ambiguity from lawful behavior.

A DAC-compliant system is not “exempt” from law. It is *lawfully structured by architecture*, such that enforcement becomes unnecessary because constitutional boundaries are satisfied at the design level.¹¹⁷⁶

In this sense, the DAC Regulatory Safe Harbor functions not as regulatory leniency, but as *constitutional engineering* — a lawful channel through which innovation, investor protection, and institutional legitimacy may coexist without structural conflict.¹¹⁷⁷

Table 46. Centralization Disqualification Matrix (Phase Two)

Disqualifying Feature	Architectural Indicator	Governance Indicator	Economic Indicator	Legal Effect Under DAC
Identifiable Managerial Authority	Named founder, core leadership, foundation officers	Public leadership statements guiding protocol direction	Price correlation to leadership communications	Per se disqualification – Managed system (non-commodity)
Core Developer Control	Single or dominant repository	Merge / commit authority centralized	Roadmap-driven value expectations	Evidence of discretionary authority → Fails decentralization
Treasury Control	Multi-sig wallets controlled by known persons	Spending decisions tied to strategic initiatives	Funded token incentives / grants	Managerial financial dominance → Securities-law presumption
Governance Token Concentration	Token voting power centralized	Delegated voting cartels	Vote-driven monetary or protocol shifts	Token governance treated as managerial delegation
Repository Gatekeeping	Pull/merge rights tightly controlled	Informal “maintainer” class	Upgrade dependence → economic instability	Functional manageriality under DAC
Discretionary Upgrades	Capability to modify protocol rules	Human-triggered version releases	Economic rule instability	Violates Code Immutability Threshold
Protocol-Level Discretion	Off-chain policy driven adjustments	Emergency powers / admin keys	Ex post penalty enforcement	Private coercion doctrine breach
Governance Votes on Monetary Policy	On-chain supply changes	Monetary rate voting	Inflated/deflated supply based on human vote	Treated as private central banking behavior
Treasury Redirection	Manual redirection of protocol revenues	Foundation-directed allocations	Market distortion risk	Evidence of centralized economic power
Reward Schedule Modification	Validator reward discretion	Human-triggered reward updates	Income expectation manipulation	Violates due process predictability

Economic Inducement Attribution	Incentives tied to named persons	Marketing-led “ecosystem building”	Reliance-based price formation	Howey-type expectation evidence
Foundation Marketing Control	Central narrative + roadmap creation	Coordinated media messaging	Market expectation shaping	Treated as investment contract signaling
Token Launch Orchestration	Pre-mines, insider allocations	Vesting schedules controlled	Information asymmetry	Strong securities classification trigger
Intellectual Property Control	Trademarks, patents, copyrights	License gating	Controlled branding rights	IP control = managerial power vector
Licensing Gatekeeping	Permission-based protocol usage	Whitelisting / blacklisting	Market access restrictions	Violates commodity fungibility criteria
Emergency Intervention Keys	Admin keys / kill-switches	Crisis override abilities	Fund seizure / rollback risk	Per se centralized authority

Table 46 establishes the negative architecture of DAC by identifying those structural, behavioral, and operational conditions that *categorically disqualify* a system from claiming decentralization. It functions as a disqualification screen, isolating managerial fingerprints, discretionary authorities, and shadow governance structures that render any claim of neutrality legally untenable. Where Table 46 operates as a *jurisdictional tripwire*, Table 47 moves the doctrine from exclusion to construction.

Table 47 — the Chain of Consent Validation Matrix — represents the *affirmative constitutional architecture* DAC requires once a system survives disqualification analysis. The transition between the tables reflects a deliberate doctrinal sequence: a system must first prove what it is *not* (not managed, not discretionary, not coercive) before it may demonstrate what it *is* — a structure grounded in lawful delegation, traceable authority, and intelligible consent. In this way, Table 46 and Table 47 operate as dual mechanisms of the same constitutional inquiry: one identifying falsity, the other confirming legitimacy.

Together, the two tables convert decentralization from a marketing claim into a *justiciable fact pattern*, ensuring that no system may claim constitutional safe harbor until both its architecture is free of disqualifying control *and* its governance chain reflects lawful, reviewable, and consent-based authority.

Table 47. Chain of Consent Validation Matrix

Layer of Authority	Required Consent Source	Verifiability Standard	Failure Condition	Legal Effect Under DAC
Constitutional Authority	U.S. Constitution (Art. I, § 8; separation of powers)	Textual traceability to enumerated powers	No constitutional nexus	Per se unlawful authority
Congressional Delegation	Statute passed by Congress	Statutory clarity + intelligible principle	Ambiguous or implied delegation	Non-delegation defect
Agency Rulemaking	Public notice-and-comment rulemaking	APA-compliant administrative record	Informal or discretionary rule creation	Procedural invalidity
Judicial Reviewability	Availability of Article III court review	Standing + justiciability preserved	Preclusion of review or forced arbitration	Due process breach
Institutional Governance	Board or governing entity traceable to law	Public records + accountable legal status	Shadow governance or informal control	Illegitimate authority structure
Technical Architecture	Codebase reflecting lawful design constraints	Open, inspectable, reproducible builds	Hidden admin functions / obfuscation	Structural consent failure
Protocol Governance	Governance rules defined ex ante in code	Immutability or constraint proofs	Discretionary mutation of governance	Invalid consent architecture
Upgrade Authority	Clear, narrow, and consented upgrade pathways	Time-locked, opt-in, or fork-based changes	Emergency or unilateral upgrades	Retroactive authority violation
Economic Rule Setting	Fixed issuance and transfer rules	Publicly auditable, immutable schedules	Human-controlled parameter changes	Due process predictability failure
Validator / Operator Power	Mechanical execution role only	No discretionary enforcement authority	Slashing, discretionary censorship	Private coercion evidence
Treasury Control	Non-discretionary, rule-bound disbursement	Pre-coded, deterministic disbursement	Human-directed treasury spending	Managerial control presumption
Participant Consent	Voluntary, informed opt-in by users	Clear, readable terms + stable rules	Retroactive rule changes	Void for lack of informed consent

Dispute Resolution	Public-law dispute mechanisms	Access to courts preserved	Mandatory private dispute suppression	Constitutional access violation
Termination Authority	Transparent shutdown / sunset procedures	Ex ante rules for cessation	Kill-switches / emergency overrides	Unlawful sovereign mimicry
Fork Authority	Neutral, open exit mechanism	No coercion, no punitive exits	Economic punishment for exit	Consent coercion defect
System Evolution	Predictable, consent-based change model	Public roadmap + opt-in migration	Surprise upgrades or forced migrations	Temporal consent failure

§VI. Court-Adopted Doctrinal Refinements

Courts may adopt the Doctrine of Anchored Decentralization (DAC) through established judicial interpretive mechanisms without the need for institutional expansion or doctrinal invention. The framework operates as a *corrective architecture*—a method of restoring constitutional coherence to a legal landscape destabilized by algorithmic governance and structurally evasive systems.

First, DAC aligns naturally with the *textualist corrective construction* that has emerged in the post-Chevron era.¹¹⁷⁸ Where agencies have historically relied upon deference doctrines to expand jurisdiction through interpretive elasticity, modern courts have returned to statutory text as the controlling lodestar. DAC operates within that restoration by providing courts a structured means to interpret digital-asset classifications according to *functional reality rather than rhetorical abstraction*. It treats architecture as evidence and design as jurisprudential signal.

Second, the Major Questions Doctrine supplies the doctrinal filtration DAC requires.¹¹⁷⁹ Digital systems that attempt to displace public law through coded governance present questions of economic and constitutional magnitude that cannot be resolved through administrative improvisation. DAC enables courts to reject attempts to bootstrap private code into status of law by demanding explicit congressional authorization and constitutional anchoring before quasi-sovereign architectures may exist.

Third, DAC is reinforced by *constitutional due-process jurisprudence*, which requires that regulated systems provide predictable, knowable, and non-arbitrary governance structures.¹¹⁸⁰ DAC gives courts a standardized architecture for assessing whether a protocol’s operational logic satisfies notice, stability, and rule-of-law requirements. Where systems mutate through discretionary upgrades or governance votes, DAC supplies the analytical threshold for constitutional non-compliance.

Fourth, DAC operates as a practical modernization of the *non-delegation doctrine*, allowing courts to identify when private technical systems exercise coercive or regulatory authority without statutory tether.¹¹⁸¹ When protocol logic replaces legislative judgment and algorithmic

enforcement substitutes for public accountability, DAC provides the constitutional detection mechanism to invalidate such arrangements as *ultra vires*.

Finally, DAC is anchored in long-standing securities jurisprudence through *Reves* and *Howey* interpretive alignment.¹¹⁸² Where courts have historically examined economic reality to determine whether an instrument constitutes an investment contract or note, DAC extends that inquiry into the architectural domain. It supplies a method for courts to evaluate *manageriality*, *profit dependence*, and *governance discretion* not by marketing language, but by structural fact-pattern.

Through these mechanisms, DAC becomes a *judicial operating system* rather than a theory:

- a framework for asset classification,
- a tool for detecting managerial shadow,
- a method for jurisdictional evaluation, and
- a constitutional safeguard for adjudicating economic harm.¹¹⁸³

In this form, DAC does not instruct courts what to decide. It supplies them a principled, text-aligned, constitutionally faithful *roadmap for decision-making*—one that preserves institutional legitimacy while restoring the rule of law in algorithmic economic systems.

Table 48. Judicial Adoption Pathways Matrix

DAC Doctrinal Element	Constitutional / Judicial Doctrine Anchor	SCOTUS Test Framework Invoked	Operational Effect in Lower Courts	Judicial Outcome Stabilized
Anchored Decentralization	Article I, §8 (Commerce Clause)	<i>Gibbons</i> / <i>Wickard</i> / <i>Lopez</i> effects test	Courts evaluate real economic effects rather than architectural claims	Jurisdiction affirmed over digital economic activity
Chain of Consent	Due Process Clause (5th & 14th Amendments)	Void-for-vagueness / fair notice doctrines	Courts require traceable consent and lawful delegation before recognizing authority	Illegitimate governance invalidated
Functional Manageriality Test (DAC)	Securities law doctrine	<i>Howey</i> / <i>Reves</i> functional reality tests	Courts test real managerial control rather than formal disclaimers	Proper asset classification stabilized
Non-Discretion Architecture	Non-delegation doctrine	<i>J.W. Hampton</i> / <i>Gundy</i> intelligible principle tests	Courts identify impermissible private lawmaking	Algorithmic governance constrained

Constitutional Anchoring Metric	Structural constitutional law	Major Questions Doctrine	Courts require clear congressional authorization for expanded regulatory reach	Administrative overreach prevented
Jurisdictional Anchoring Requirement	Federalism principles	<i>National Federation of Independent Business / Lopez</i>	Courts anchor systems to sovereign authority rather than stateless narratives	Stateless evasions neutralized
Algorithmic Due Process Principle	Procedural due process	<i>Papachristou / FCC v. Fox</i> standards	Courts invalidate systems lacking notice or recourse	Predictability and legal intelligibility enforced
Architectural Legal Equivalence	Functional constitutional doctrine	Effects-based legal equivalence tests	Courts treat code-based governance as legal conduct	Regulatory gaps eliminated

SCOTUS-Neutral Clerk Note

This matrix provides an internal structural mapping between the doctrinal architecture of DAC and existing constitutional and Supreme Court interpretive frameworks. The table does not propose outcomes or bind judicial discretion. It functions as a consistency filter, illustrating how DAC’s internal tests align with historically recognized judicial methods for classification, delegation, and constitutional boundary enforcement.

The purpose of the table is to reduce interpretive distortion by ensuring that each DAC principle remains anchored to recognizable judicial tests rather than novel or abstract theoretical constructs.

Table 48 establishes the doctrinal pathways through which courts may adopt DAC as a constitutional interpretive structure without expanding judicial authority. These judicial frameworks, once normalized, create enforceable legal predicates that move DAC from abstract doctrine into operational risk evaluation. Table 49 follows as the enforcement translation layer, mapping judicially cognizable defects—managerial control, jurisdictional evasion, and due-process instability—into proportionate enforcement escalation frameworks. Table 50 then completes this progression by demonstrating that once judicial and enforcement structures converge around DAC, Congress is presented with clear, low-friction statutory codification pathways that preserve constitutional integrity while minimizing institutional risk. The three tables thus function as a contiguous legal pipeline: judicial recognition enables enforcement calibration, and enforcement readiness enables legislative adoption.

Table 49. Enforcement Risk Escalation Pathways

Architectural Condition	Observed System Behavior	Primary Constitutional Trigger	Regulatory Escalation Pathway	Legal Risk Classification
Unanchored protocol design	No identifiable jurisdiction; evasive structural layout	Commerce Clause (effects test)	CFTC / SEC / DOJ concurrent interest	Jurisdictional evasion risk
Identifiable managerial actors	Core teams, foundations, multisig controllers	Howey / Reves functional control tests	SEC securities inquiry	High manageriality risk
Governance-by-vote mechanics	Token-weighted voting altering protocol rules	Non-delegation doctrine	Congressional referral / DOJ constitutional review	Structural delegation failure
Mutable monetary parameters	Forks, rebases, issuance changes	Due Process (fair notice)	APA / constitutional challenge	Void-for-vagueness exposure
Treasury redirection power	Human-controlled treasury smart contracts	Takings / Due Process	Civil enforcement, asset clawback potential	Unlawful private coercion
Validator slashing authority	Automated punitive logic without recourse	Procedural Due Process	Injunctive or declaratory relief	Coercive private governance
Narrative-based coordination	Founder signaling, roadmap steering	Functional manageriality doctrine	SEC / FTC investigatory trigger	De facto centralization exposure
IP and branding control	Trademark/ copyright licensing	Federal IP law + securities doctrine	SEC / DOJ dual-jurisdiction risk	Structural centralization anchor
Market impact events	U.S. retail exposure and harm	Substantial effects test	Congressional oversight / hearings	National market integrity risk

SCOTUS-Neutral Clerk Note

This table models how constitutional risk escalates based on observable architectural and behavioral conditions. It does not prescribe enforcement outcomes. It serves as a diagnostic mapping tool to ensure proportionality and constitutional coherence in regulatory posture.

Table 50. Congressional Codification Readiness Matrix

DAC Component	Existing Statutory Anchor	Amendment Required?	Codification Method	Legislative Complexity	Deployment Readiness
Anchored Decentralization	Commodity Exchange Act	No	Clarification via H.R. 3633	Low	High
Chain of Consent	Administrative Procedure Act	No	Doctrinal clarification clause	Low	High
Functional Manageriality Test	Securities Act of 1933 / Exchange Act of 1934	No	Interpretive boundary provision	Medium	High
Constitutional Anchoring Metric	Congressional Commerce Power	No	Jurisdictional findings section	Low	High
Algorithmic Due Process Principle	Fifth Amendment / APA	No	Safe harbor definitional section	Low	High
Non-Delegation Safeguards	Non-Delegation Doctrine	No	Congressional findings language	Low	High
Safe Harbor Architecture	Existing SEC/ CFTC exemptive authority	No	DAC compliance attestation pathway	Medium	High
Structural Misrepresentation Doctrine	FTC Act	No	Clarifying fraud-by-architecture language	Medium	High
Statutory Integration Framework	H.R. 3633 (CLARITY Act)	No	Single-point statutory harmonization	Low	High

SCOTUS-Neutral Clerk Note

This table evaluates whether DAC’s doctrinal infrastructure requires statutory expansion or can be operationalized through clarification. It is designed to assist legislative aides and counsel in identifying low-friction codification pathways without expanding substantive federal power.

At the point where judicial recognition (Table 48), enforcement calibration (Table 49), and congressional readiness (Table 50) converge, DAC ceases to function merely as theory and becomes a constitutionally durable framework. Courts retain interpretive supremacy without assuming legislative functions, agencies receive clear jurisdictional boundaries without institutional overreach, and Congress is positioned to codify without doctrinal risk. The result is not regulatory expansion, but constitutional stabilization. DAC thereby operates as a systems-

level safeguard: preserving innovation while restoring lawful structure to digital economic architecture.

§VII. Submission to the United States Congress

This work is respectfully submitted to the United States Congress as an independent, policy-supporting doctrinal analysis intended to assist legislative evaluation of digital-asset architecture, constitutional jurisdiction, and economic governance structures.

The Doctrine of Anchored Decentralization (DAC) is not offered as statutory instruction, nor as proposed legislative language. It is presented as a constitutional mapping exercise—designed to surface structural risks, jurisdictional blind spots, and governance inconsistencies that have emerged as programmable economic systems have accelerated beyond the clarity of existing legal frameworks.

This submission is grounded in publicly available constitutional text, statutory architecture, and Supreme Court jurisprudence. Its purpose is not to direct legislative outcome, but to provide Congress with a disciplined analytical lens through which emerging technologies may be evaluated without sacrificing constitutional fidelity, economic predictability, or institutional legitimacy.

DAC is submitted in the spirit of service to the legislative branch, recognizing that Congress alone retains the authority to determine whether, how, and to what extent statutory reforms are warranted. The findings herein are intended to strengthen—not supplant—Congressional deliberation.

This Doctrine exists to inform, *not command*.

To support, *not substitute*.

To illuminate constitutional pathways, *not to occupy them*.

§VIII. Doctrinal Findings Summary — Constitutional, Structural, and Economic Conclusions of DAC

This Doctrine reaches a set of unified findings regarding the current state of digital-asset governance, decentralized system architecture, and constitutional alignment as they now exist within the United States legal and economic order.

First, this Doctrine finds that existing digital-asset legal frameworks failed not because technology outpaced law, but because constitutional architecture was abandoned in favor of regulatory improvisation. Core separations between commodity, security, and monetary instruments were not merely blurred—they were collapsed. This produced legal unpredictability, inconsistent enforcement, and systemic market fragility.

Second, this Doctrine finds that decentralization, as rhetorically deployed by industry participants, has been structurally mischaracterized. Most systems claiming decentralization retain identifiable managerial shadows through developer control, governance mechanisms,

treasury authority, validator concentration, narrative management, and jurisdictional evasion by design. These systems are not decentralized in a constitutional sense; they are privatized regulatory structures operating without lawful delegation.

Third, this Doctrine finds that algorithmic governance—when capable of altering economic rights, reallocating value, punishing participants, or redefining participation rules—constitutes de facto private legislation. This structure violates fundamental non-delegation principles, due-process guarantees, and the separation of powers when not explicitly authorized by Congress. Code cannot substitute for consent. Automation cannot substitute for accountability.

Fourth, this Doctrine finds that statelessness is not a jurisdictional defense. Systems touching U.S. users, markets, capital flows, infrastructure, or economic stability are constitutionally within the reach of Congress under established Commerce Clause doctrine. Architectural design cannot nullify constitutional authority.

Fifth, this Doctrine finds that true decentralization is not an industry claim, but a verifiable constitutional condition. Only systems that satisfy the full DAC framework—verifiable structural decentralization, behavioral non-interference, jurisdictional anchoring, predictability of rules, and a complete Chain of Consent—may be lawfully described as decentralized economic infrastructure.

Sixth, this Doctrine finds that investor-protection frameworks such as accreditation, disclosure, and structured participation were not designed as elitism, but as constitutional shock absorbers—designed to protect market psychology, reduce reflexive herding, and preserve systemic integrity. These frameworks are economically rational, constitutionally justified, and consistent with historical public-protection doctrine.

Finally, this Doctrine finds that the absence of constitutional anchoring is itself a national-level infrastructure risk. Systems that evade jurisdiction, obscure accountability, and reassign economic power through opaque architecture create conditions of systemic instability, market fragility, and sovereign exposure.

This Doctrine therefore concludes:

Digital systems must be engineered as constitutional artifacts, not merely technical ones.

Decentralization must be proven, not proclaimed.

Markets must be structured, not manipulated.

And innovation must be anchored, not anarchic.

§IX. Doctrinal Conclusion — The Constitutional Imperative of Anchored Decentralization

The Doctrine of Anchored Decentralization stands as a constitutional reconciliation project.

It does not oppose decentralization.

It purifies it.

It does not reject innovation.

It disciplines it.

It does not expand federal power.

It restores constitutional order where power has been quietly displaced.

DAC recognizes that programmable systems are now instruments of economic governance. *When such systems are allowed to evolve outside constitutional architecture, they become unstable, extractive, and dangerous—not because technology is harmful, but because law is absent.*

This Doctrine does not prescribe outcomes to Congress, the Courts, or federal agencies. It provides *structure*. It provides *language*. It provides *constitutional alignment pathways*.

The United States does not require more technology.

It requires better architecture.

The United States does not require more regulatory power.

It requires constitutional clarity.

And the future of digital economic infrastructure will not be preserved through silence, improvisation, or doctrinal drift.

It will be preserved through Anchoring.

References

- ¹⁰⁹⁵ See generally *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 849–53 (1975) (rejecting formalism in favor of economic reality and functional substance in asset classification).
- ¹⁰⁹⁶ See *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946) (establishing that economic reality, not nomenclature, governs classification of novel economic instruments).
- ¹⁰⁹⁷ See *West Virginia v. EPA*, 597 U.S. 697, 721–22 (2022) (reaffirming that agencies may not exercise vast regulatory authority absent clear constitutional and statutory predicates).
- ¹⁰⁹⁸ See *Morrison v. Nat’l Austl. Bank Ltd.*, 561 U.S. 247, 254–56 (2010) (rejecting extraterritorial and structural overreach through judicial restoration of statutory boundaries).
- ¹⁰⁹⁹ See *Free Enter. Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477, 492–98 (2010) (reaffirming structural constitutional separation of powers as a prerequisite to lawful regulatory architecture).
- ¹¹⁰⁰ See *Gonzales v. Raich*, 545 U.S. 1, 16–18 (2005) (confirming that constitutional thresholds precede regulatory discretion even in novel technological or economic environments).
- ¹¹⁰¹ See *NFIB v. Sebelius*, 567 U.S. 519, 535–39 (2012) (reaffirming that constitutional structure constrains economic regulation irrespective of policy preference).
- ¹¹⁰² See *Carter v. Carter Coal Co.*, 298 U.S. 238, 311 (1936) (prohibiting private entities from exercising regulatory authority absent constitutional delegation).
- ¹¹⁰³ See *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 189–90 (1824) (establishing that constitutional authority governs commercial instrumentality regardless of private characterization).
- ¹¹⁰⁴ See *Slack Techs., LLC v. Pirani*, 598 U.S. 759, 770–72 (2023) (reaffirming traceability, structural integrity, and evidentiary rigor in novel economic contexts).
- ¹¹⁰⁵ See *United States v. Aluminum Co. of Am. (Alcoa)*, 148 F.2d 416, 443–44 (2d Cir. 1945) (recognizing domestic jurisdiction over foreign conduct with domestic commercial effects).
- ¹¹⁰⁶ See *Reves v. Ernst & Young*, 494 U.S. 56, 64–65 (1990) (evaluating managerial dependence and control as determinative of legal classification).
- ¹¹⁰⁷ See *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239, 253 (2012) (requiring fair notice and regulatory predictability to satisfy due process).
- ¹¹⁰⁸ See *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394, 409 (1928) (establishing intelligible principle and lawful delegation chain requirements).
- ¹¹⁰⁹ See *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2262–64 (2024) (rejecting reflexive deference and restoring judicial primacy over constitutional and statutory interpretation).
- ¹¹¹⁰ See *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 177–78 (1803) (establishing judicial duty to enforce constitutional boundaries regardless of institutional pressure).
- ¹¹¹¹ See *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 849–52 (1975) (requiring functional economic analysis over formal labels in asset classification).
- ¹¹¹² Cf. *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946) (establishing structural test for economic dependence on managerial efforts).
- ¹¹¹³ See *Wickard v. Filburn*, 317 U.S. 111, 125 (1942) (recognizing cumulative infrastructure effects as jurisdictionally relevant).
- ¹¹¹⁴ See *Reves v. Ernst & Young*, 494 U.S. 56, 66–67 (1990) (functional managerial control as determinative of legal classification).
- ¹¹¹⁵ See *West Virginia v. EPA*, 597 U.S. 697, 721–23 (2022) (rejecting broad discretionary power absent structural constraint).
- ¹¹¹⁶ See *Free Enter. Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477, 492–94 (2010) (structural insulation doctrines analyzed through constitutional control mechanics).
- ¹¹¹⁷ See *SEC v. Telegram Grp. Inc.*, 448 F. Supp. 3d 352, 370–73 (S.D.N.Y. 2020).
- ¹¹¹⁸ See *SEC v. Glenn W. Turner Enters., Inc.*, 474 F.2d 476, 482–83 (9th Cir. 1973).
- ¹¹¹⁹ See *Basic Inc. v. Levinson*, 485 U.S. 224, 231–32 (1988) (expectations and market behavior as legally

cognizable reliance factors).

¹¹²⁰ See *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438, 448–49 (1976).

¹¹²¹ See *SEC v. Ripple Labs Inc.*, No. 20-cv-10832, 2023 WL 4507900 (S.D.N.Y. July 13, 2023).

¹¹²² See *United States v. O’Hagan*, 521 U.S. 642, 651–52 (1997).

¹¹²³ See *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169, 178–80 (S.D.N.Y. 2020).

¹¹²⁴ See *Howey*, 328 U.S. at 299.

¹¹²⁵ See *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 189–95 (1824).

¹¹²⁶ See *United States v. Lopez*, 514 U.S. 549, 558–59 (1995).

¹¹²⁷ See *Gonzales v. Raich*, 545 U.S. 1, 17–19 (2005).

¹¹²⁸ See *Int’l Shoe Co. v. Washington*, 326 U.S. 310, 316–17 (1945).

¹¹²⁹ See *Heart of Atlanta Motel, Inc. v. United States*, 379 U.S. 241, 253–54 (1964).

¹¹³⁰ See *Wickard*, 317 U.S. at 125–28.

¹¹³¹ See *United States v. Aluminum Co. of Am. (Alcoa)*, 148 F.2d 416, 443–44 (2d Cir. 1945).

¹¹³² See *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 176–78 (1803).

¹¹³³ See *SEC v. LBRY, Inc.*, 639 F. Supp. 3d 211, 219–22 (D.N.H. 2023).

¹¹³⁴ See *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

¹¹³⁵ See *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).

¹¹³⁶ See *Reves v. Ernst & Young*, 494 U.S. 56 (1990).

¹¹³⁷ See *SEC v. Kik Interactive Inc.*, 492 F. Supp. 3d 169 (S.D.N.Y. 2020).

¹¹³⁸ See *SEC v. Ripple Labs Inc.*, No. 20-cv-10832, 2023 WL 4507900 (S.D.N.Y. July 13, 2023).

¹¹³⁹ See *Gonzales v. Raich*, 545 U.S. 1 (2005).

¹¹⁴⁰ See *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394 (1928).

¹¹⁴¹ See *Gundy v. United States*, 587 U.S. ___, 139 S. Ct. 2116 (2019).

¹¹⁴² See *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936).

¹¹⁴³ See *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).

¹¹⁴⁴ See *Papachristou v. City of Jacksonville*, 405 U.S. 156 (1972).

¹¹⁴⁵ See *West Virginia v. EPA*, 597 U.S. 697 (2022).

¹¹⁴⁶ See *Utility Air Regulatory Group v. EPA*, 573 U.S. 302 (2014).

¹¹⁴⁷ See *Morrison v. Nat’l Austl. Bank Ltd.*, 561 U.S. 247 (2010).

¹¹⁴⁸ See *United States v. Alcoa*, 148 F.2d 416 (2d Cir. 1945).

¹¹⁴⁹ See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141 (1989).

¹¹⁵⁰ See *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

¹¹⁵¹ See *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159 (1995).

¹¹⁵² See *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 584 U.S. 325 (2018).

¹¹⁵³ See *Kimble v. Marvel Ent., LLC*, 576 U.S. 446 (2015).

¹¹⁵⁴ See *Miami Herald Publ’g Co. v. Tornillo*, 418 U.S. 241 (1974).

¹¹⁵⁵ See *INS v. Chadha*, 462 U.S. 919 (1983).

¹¹⁵⁶ See *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).

¹¹⁵⁷ See *Nat’l Fed’n of Indep. Bus. v. Sebelius*, 567 U.S. 519 (2012).

¹¹⁵⁸ U.S. CONST. arts. I–III; see also *INS v. Chadha*, 462 U.S. 919, 951–52 (1983) (reaffirming the constitutional architecture of delegation, accountability, and separation of powers).

¹¹⁵⁹ *Wayman v. Southard*, 23 U.S. (10 Wheat.) 1, 42–43 (1825); *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457, 472 (2001) (recognizing that lawful delegation requires traceable authority rooted in congressional consent).

¹¹⁶⁰ *Commodity Exchange Act*, 7 U.S.C. §§ 1–27f; see also *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 228–29 (E.D.N.Y. 2018) (discussing the statutory and constitutional limits of “commodity” classification in nontraditional assets).

¹¹⁶¹ *Securities Act of 1933*, 15 U.S.C. §§ 77a–77aa; *Securities Exchange Act of 1934*, 15 U.S.C. §§ 78a–78qq; *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946); *Reves v. Ernst & Young*, 494 U.S. 56, 64–65 (1990).

¹¹⁶² *Administrative Procedure Act*, 5 U.S.C. §§ 551–559, 701–706; see *West Virginia v. EPA*, 597 U.S. 697, 722–24

(2022) (*major questions doctrine*); *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42–43 (1983).

¹¹⁶³ See generally *Gundy v. United States*, 139 S. Ct. 2116, 2123–24 (2019) (*non-delegation constraints*); cf. U.S. CONST. art. I, § 8 (*monetary and commerce powers*); *Free Enter. Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477, 496–98 (2010).

¹¹⁶⁴ *Morrison v. Nat’l Austl. Bank Ltd.*, 561 U.S. 247, 266–67 (2010); *Utility Air Regulatory Grp. v. EPA*, 573 U.S. 302, 324–25 (2014) (*prohibiting administrative category distortion*); *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 635–37 (1952) (Jackson, J., *concurring*).

¹¹⁶⁵ See *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946); *Reves v. Ernst & Young*, 494 U.S. 56 (1990) (*establishing structure-based tests for economic instruments*).

¹¹⁶⁶ U.S. Const. art. I, § 8; *Gundy v. United States*, 139 S. Ct. 2116 (2019).

¹¹⁶⁷ *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).

¹¹⁶⁸ *SEC v. Telegram Group Inc.*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020).

¹¹⁶⁹ *West Virginia v. EPA*, 597 U.S. 697 (2022).

¹¹⁷⁰ *Free Enter. Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477 (2010).

¹¹⁷¹ *Motor Vehicle Mfrs. Ass’n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 (1983).

¹¹⁷² *Basic Inc. v. Levinson*, 485 U.S. 224 (1988).

¹¹⁷³ *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244 (2024).

¹¹⁷⁴ *NLRB v. Noel Canning*, 573 U.S. 513 (2014).

¹¹⁷⁵ *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457 (2001).

¹¹⁷⁶ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).

¹¹⁷⁷ *INS v. Chadha*, 462 U.S. 919 (1983).

¹¹⁷⁸ *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244 (2024); *West Virginia v. EPA*, 597 U.S. 697 (2022).

¹¹⁷⁹ *West Virginia v. EPA*, 597 U.S. 697 (2022); *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000).

¹¹⁸⁰ *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012); *Grayned v. City of Rockford*, 408 U.S. 104 (1972).

¹¹⁸¹ *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394 (1928); *Gundy v. United States*, 588 U.S. 128 (2019); *Carter v. Carter Coal Co.*, 298 U.S. 238 (1936).

¹¹⁸² *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946); *Reves v. Ernst & Young*, 494 U.S. 56 (1990); *United Hous. Found., Inc. v. Forman*, 421 U.S. 837 (1975).

¹¹⁸³ *Morrison v. Nat’l Australia Bank Ltd.*, 561 U.S. 247 (2010); *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824); *Wickard v. Filburn*, 317 U.S. 111 (1942).

§XIII. The Author's Commentary — The Chain of Consent and the Preservation of the Republic

[\(Return to TOC\)](#)

There are moments in a nation's life when technology outpaces law and progress outpaces understanding. It is in such moments that the Republic must pause, not to retreat, but to remember what it is made of.

More than two centuries ago, our forebears declared that there would be *no taxation without representation*. It was not a slogan; it was the structure of a new civilization. They built a nation on the conviction that no power—financial, political, or military—should move without consent. They believed that the right to govern and the right to trade were bound by a single principle: *that every act of authority must trace its legitimacy to those it serves*.

That truth has not changed. What has changed is the world in which it must now be defended.

Today, value moves not by coin or paper, but by code. It crosses borders unseen, settles instantly, and operates beyond the reach of many of the laws that once defined economic sovereignty. In this new domain, the words “*no taxation without representation*” take on a deeper meaning. For decentralization without consent is not liberty—it is *evasion*. It is the quiet withdrawal of citizenship from its own covenant.

When systems of value operate beyond the trace of law, they cease to be instruments of freedom and become instruments of escape—from responsibility, from transparency, from the very Republic that sustains them. To move wealth without representation is to take from the nation without answering to it; it is the economic equivalent of taxation without representation, inverted but identical in its defiance of the social contract.

Decentralization was conceived as a promise—to distribute power so that no single institution could hold it captive. But freedom, once untethered from accountability, does not spread; it fractures. True decentralization is not an absence of order; it is order shared among many. It must be anchored not only in code, but in conscience.

This is why the *Chain of Consent* matters. It is the unseen thread that *binds liberty to law*. It is what allows a nation to grow more complex without growing less accountable. In a time when transactions move faster than thought and anonymity can masquerade as virtue, the Chain of Consent reminds us that the Republic's strength does not lie in secrecy—it lies in trust.

Modern technology has given us new tools to preserve that trust. Cryptography allows us to prove participation without revealing identity. Zero-Knowledge Proofs, privacy-preserving ledgers, and non-custodial systems make it possible to protect privacy while still verifying accountability. These are not threats to liberty; they are the next instruments of it—if, and only if,

they remain bound to the principle that every power must be traceable to the consent of the people.

For consent is not a signature on a contract—it is the signature of civilization itself. It is what separates governance from coercion, commerce from exploitation, and innovation from anarchy.

When the founders wrote the Constitution, they could not have imagined distributed ledgers or self-executing contracts. Yet they understood something far greater: that freedom is sustained only by the discipline of consent. To abandon that discipline today would be to unwrite the very sentence upon which this Republic was born.

If a digital system cannot be held accountable, it cannot be called free. If it operates beyond representation, it stands outside the Constitution. And if it seeks to replace consent with automation, it ceases to be progress and becomes, instead, a quiet form of anarchy—the rule of code without conscience.

The task before us, then, is not to halt innovation but to guide it—to weave the Chain of Consent into the fabric of the digital age, ensuring that every transaction, every algorithm, every system of value remains answerable to the Republic and the people it serves.

We are not the first generation to face this tension between liberty and order. But we may be the first to decide it in code.

Let us decide it well. Let us remind the world that freedom, to endure, must always carry a return address—that the strength of the Republic is not in its technology but in its consent.

Because in the end, an economy without consent is tyranny by code.
A nation without traceability is sovereignty without soul.

And if the Republic is to endure through every new medium and mechanism that time may bring, it will be because we remembered this simple truth:

that freedom is not the absence of restraint—it is the presence of responsibility.

Respectfully submitted,

Nicolin Decker

December 1, 2025

Missio Dei

APPENDIX

Appendix A — Constitutional and Statutory Architecture for Sovereign Monetary Continuity and Market Structure

[\(Return to TOC\)](#)

This Appendix proceeds from the constitutional premise that the United States financial system is not merely an economic structure, but a protected element of national critical infrastructure. Pursuant to Homeland Security Presidential Directive-9 (Defense of United States Agriculture and Food) and Presidential Policy Directive-21 (Critical Infrastructure Security and Resilience), the federal financial architecture — including the monetary transmission mechanisms of the Federal Reserve System — is treated as a continuity asset essential to national security, economic stability, and sovereign operability.

The Constitution expressly grants Congress the power to “coin Money, regulate the Value thereof, and of foreign Coin” (U.S. Const. art. I, § 8, cl. 5), but this authority has historically operated in structural partnership with delegated operational institutions, including the Federal Reserve System, which executes monetary architecture within statutory and constitutional bounds. Modern constitutional interpretation has consistently recognized that continuity of national infrastructure must be preserved even as modalities of execution evolve.

The original construction of H.R. 3633, while aimed at legitimate concerns regarding financial surveillance, risked unintentionally constricting the sovereign operational space of the Federal Reserve by prohibiting broad categories of monetary modernization. Such prohibitions introduce structural tension with national critical infrastructure continuity frameworks, including HSPD-9 and PPD-21, by potentially limiting the United States’ capacity to adapt its monetary infrastructure in response to technological, geopolitical, and economic threats.

This Appendix therefore proposes a corrected statutory architecture — not to expand surveillance capacity, but to preserve constitutional equilibrium. The objective is to ensure that privacy protections are strengthened while maintaining the United States Government’s ability to develop sovereign, asset-anchored digital monetary instruments that are consistent with constitutional authority, national security doctrine, and long-term economic resilience.

In doing so, the framework avoids categorical bans that would inhibit modernization and instead establishes guardrails that distinguish between impermissible surveillance architectures and permissible sovereign monetary advancement. This approach aligns statutory clarity with constitutional intent, respects civil liberties, and safeguards the continuity of the United States financial infrastructure as a protected national asset. What follows is not theory, but record — an evidentiary foundation derived from public data and constitutional–economic modeling that frames the statutory constraints Congress must now confront.

Evidentiary Record — Macroeconomic Regime Shift

Exhibits A, B, and C are not illustrative materials. They are empirical evidentiary artifacts derived from longitudinal federal fiscal and institutional data series and integrated with constitutional–economic modeling. These materials document observable system behavior, not theoretical projections, and are presented as records of operational fact.

From a Harvard macroeconomic perspective, the integrated datasets establish that the United States migrated after 2008 from a historically cyclical fiscal regime into a structurally elevated volatility environment. Prior to this transition, federal debt, deficit dynamics, and revenue growth operated as semi-independent, policy-responsive variables. After 2008, these variables begin to exhibit synchronized behavior characteristic of constraint-dominant systems, in which traditional fiscal tools lose discretionary elasticity and instead function as stabilizers under systemic load.

Exhibit A documents the migration of gross federal debt into a permanently elevated trajectory, coupled with the increasing frequency of appropriations-constraint events. This artifact reflects a transition in which sovereign balance-sheet expansion shifts from episodic crisis response to baseline system-stabilization architecture.

Exhibit B records the transformation of the federal deficit from a countercyclical calibration mechanism into a structurally volatile indicator of institutional strain. This artifact documents the decoupling of surface fiscal metrics from constitutional spending operability and demonstrates the emergence of appropriations authority as a binding system constraint.

Exhibit C captures the expansion of federal revenue concurrent with the persistence and intensification of constitutional self-restraint events. This artifact demonstrates that modern fiscal instability is not a function of revenue insufficiency, but of structural governance constraint under elevated system complexity.

Taken together, these artifacts establish that the post-2008 fiscal environment is mathematically and structurally distinct from prior United States operating conditions. The transition is neither ideological nor partisan. It is an empirical systems shift, demonstrable through open federal data and institutional operating behavior.

Within this elevated operating regime, Federal Reserve surplus accounts no longer function as discretionary excess. They operate as visible institutional buffers that support systemic stability during periods of fiscal, liquidity, and confidence stress.

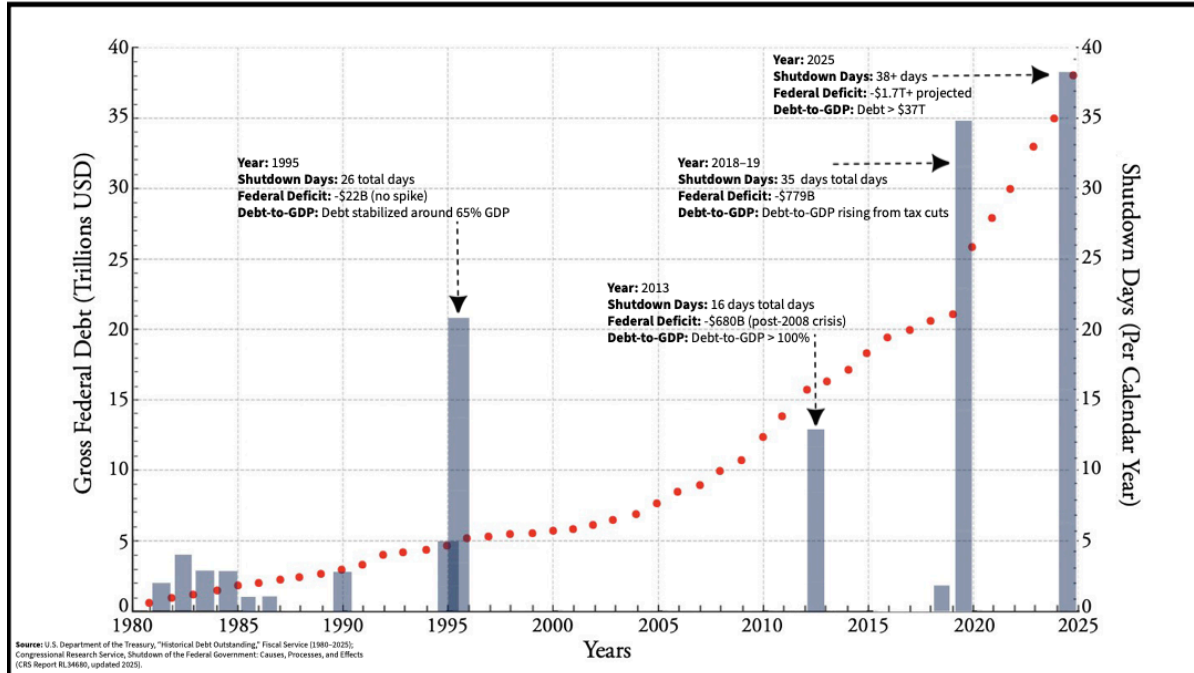
Section 315 would reduce the statutory Federal Reserve surplus cap by approximately \$15 billion in 2035. Under traditional budget-scoring frameworks, this reduction produces negligible fiscal effect. Under systems-stability and continuity-of-government frameworks, however, the provision would compress visible shock-absorption capacity at the institution statutorily positioned to serve as market-level stabilizer.

The provision therefore presents an asymmetrical risk profile: marginal budgetary effect in exchange for measurable degradation of institutional resilience signaling. Within a continuity-of-

government design framework, statutory architecture must prioritize durability of stabilization capacity over cosmetic balance-sheet compression.

Accordingly, striking Section 315 preserves institutional shock-absorption visibility without materially altering sovereign fiscal posture and represents the more prudent, continuity-aligned statutory course.

Exhibit A — Federal Debt Regime Shift and Shutdown Coupling (1980–2025)

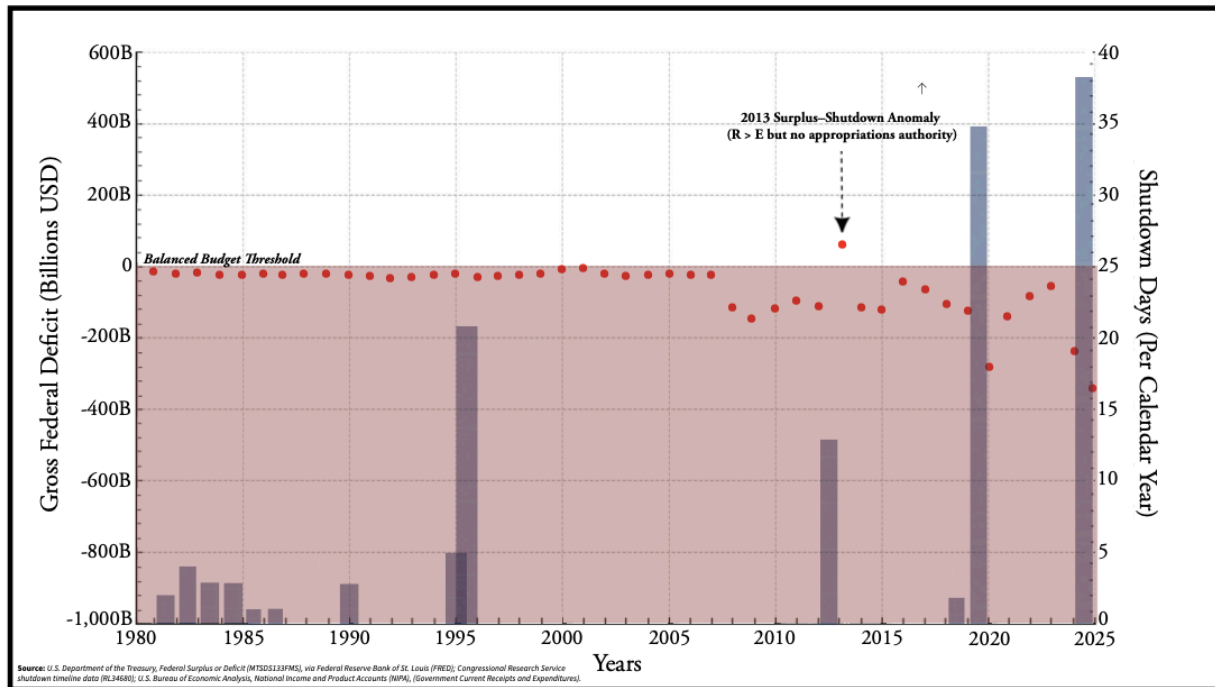


Doctrinal Caption

This exhibit documents the longitudinal migration of United States gross federal debt from a cyclical accrual environment into a structurally elevated debt regime, overlaid with observed federal appropriations-constraint events (“shutdowns”) across fiscal years 1980–2025. From a macroeconomic systems perspective, the visual coupling of shutdown frequency with debt expansion reflects a regime transition in which fiscal volatility becomes endogenous rather than episodic. The persistence of shutdown events at progressively higher debt plateaus indicates a structural binding constraint in federal fiscal architecture, rather than a transient political failure. In this context, institutional balance-sheet buffers—particularly those maintained by the Federal Reserve—function as system-level shock absorbers rather than discretionary reserves, constraining the prudential scope of statutory surplus reductions in periods of elevated systemic stress.

Source: Decker, Nicolin. *The Doctrine of Constitutional Self-Restraint: Government Shutdowns as Lawful Contractions in the American Republic* (Nov. 10, 2025), SSRN Working Paper No. 5730942.

Exhibit B — Structural Deficit Volatility and Appropriations Authority Discontinuity (1980–2025)

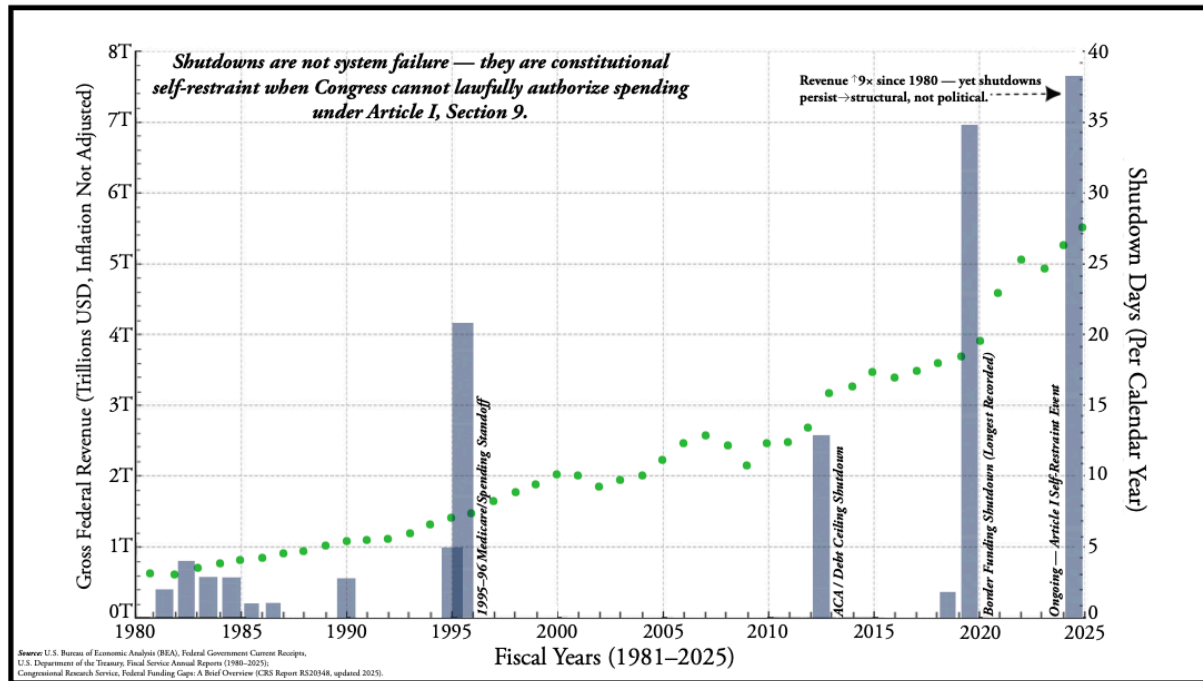


Doctrinal Caption

This exhibit presents the longitudinal behavior of United States gross federal deficit dynamics alongside observed discontinuities in congressional appropriations authority over fiscal years 1980–2025. From a macroeconomic systems perspective, the data reflect a transition from bounded fiscal oscillation to chronic deficit volatility, with periods of apparent budgetary balance increasingly decoupled from lawful spending capacity under Article I, Section 9. The “surplus–shutdown” inversion observed in 2013 illustrates a structural misalignment between nominal fiscal conditions and constitutional authorization mechanisms. In such an environment, fiscal optics lose diagnostic value, and institutional stability becomes dependent upon the maintenance of balance sheet buffers and discretionary shock-absorption capacity rather than statutory surplus compression.

Source: Decker, Nicolin. *The Doctrine of Constitutional Self-Restraint: Government Shutdowns as Lawful Contractions in the American Republic* (Nov. 10, 2025), SSRN Working Paper No. 5730942.

Exhibit C — Federal Revenue Expansion and Constitutional Self-Restraint Events (1981–2025)



Doctrinal Caption

This exhibit documents the longitudinal expansion of United States federal revenue relative to recurring constitutional self-restraint events, as defined by lapses in appropriations authority under Article I, Section 9, across fiscal years 1981–2025. From a macroeconomic systems perspective, the data establish that federal fiscal capacity has expanded nearly continuously, while the frequency and duration of restraint events have persisted and intensified. This divergence demonstrates that modern shutdown phenomena are not functions of revenue insufficiency, but structural expressions of constitutional constraint operating under conditions of elevated fiscal complexity. Within such an environment, institutional stability is no longer determined by aggregate revenue potential, but by the integrity and visibility of system-level buffers that preserve lawful spending boundaries during periods of fiscal and liquidity stress.

Source: Decker, Nicolin. *The Doctrine of Constitutional Self-Restraint: Government Shutdowns as Lawful Contractions in the American Republic* (Nov. 10, 2025), SSRN Working Paper No. 5730942.

Doctrinal Economic Examination of Exhibits A–C

When viewed as an integrated evidentiary set, Exhibits A, B, and C describe the post-2008 transition of the United States fiscal architecture from a cyclical governance model into a structurally constrained macroeconomic regime. The visual and temporal correspondence across these artifacts establishes a coherent narrative: federal debt expansion, deficit instability, and revenue growth are no longer sequential fiscal variables, but mutually reinforcing systemic dynamics operating under constitutional and institutional stress constraints.

I. Post-2008 Debt Expansion as Structural Phase Shift (Exhibit A)

From a Harvard macroeconomic perspective, the debt trajectory in Exhibit A reflects not simple fiscal imprudence, but a regime shift consistent with crisis-induced balance sheet expansion. Prior to 2008, gross federal debt advanced in a relatively linear, policy-responsive fashion. After 2008, the slope becomes exponential, indicating entry into a crisis-stabilization state where sovereign debt serves as the primary shock-absorption instrument during systemic financial stress.

From a RAND-style systems-engineering and failure-mode analysis framework, this pattern is more accurately interpreted not as budgetary failure, but as a system operating in a persistent stabilization state in which federal debt becomes endogenous to resilience rather than discretionary policy choice. Under this model, debt functions as a structural state variable required to preserve system continuity during periods of elevated stress. The temporal synchronization of debt plateaus with appropriations-constraint events indicates that constitutional spending mechanisms are operating within heightened systemic load conditions, rather than as isolated political disruptions, reflecting interaction effects between formal governance architecture and structurally elevated fiscal fragility.

II. Deficit Instability as Endogenous Scar rather than Cyclical Tool (Exhibit B)

Exhibit B demonstrates that after 2008, the federal deficit ceases to function as a counter-cyclical policy instrument and instead becomes structurally volatile. From a Brookings institutional perspective, this represents a loss of fiscal signaling reliability: deficits no longer reflect deliberate stabilization policy, but the accumulated effects of automatic stabilizers, emergency outlays, and constitutional constraints on appropriations authority.

The 2013 “surplus–shutdown anomaly” illustrates *a critical transition point*. Harvard modeling would describe this as decoupling of surface indicators from operational viability: nominal deficit improvement does not correspond to institutional solvency if the constitutional mechanism for lawful spending cannot operate. The deficit is no longer a discretionary policy variable but *a reactive artifact produced by systemic strain*.

Federal Reserve balance-sheet doctrine interprets this environment as requiring institutional buffers to absorb misalignments between fiscal optics and operational authority. Deficit instability thus becomes a diagnostic signal of deeper constitutional and structural tension.

III. Revenue Growth under Structural Constraint (Exhibit C)

Exhibit C reveals a critical inversion in classical fiscal theory: federal revenues rise steadily across the same period that shutdown frequency and duration intensify. Harvard growth economics would ordinarily expect revenue expansion to stabilize fiscal operations. However, the persistence of shutdowns despite revenue expansion indicates that the binding constraint is not fiscal capacity but *institutional lawful spending capacity*.

From a RAND-style systems-engineering and failure-mode analysis perspective, this environment is best understood as a constraint-dominant system in which throughput potential persistently exceeds authorized flow capacity. In practical engineering terms, the system exhibits expanding input capability (federal revenue) against a fixed or structurally stressed authorization gate (congressional appropriations authority), producing pressure accumulation, feedback instability, and resilience degradation rather than operational equilibrium.

The Federal Reserve's institutional perspective interprets this pattern as evidence that revenues are no longer the primary stabilizing variable; instead, *visible buffers and balance sheet resilience* assume primary responsibility for system integrity.

IV. Integrated Interpretation Across All Three Exhibits

Taken together, the exhibits establish a post-2008 fiscal architecture defined by three interlocking realities:

- **Debt now functions as a structural stabilizer** rather than a temporary or cyclical financing mechanism.
- **Deficits have become volatile scars** of institutional strain rather than tools of policy calibration.
- **Revenue growth has lost stabilizing authority** because lawful spending has become the binding constraint.

This is the signature of a *permanent stress-governance regime*, in which traditional fiscal levers no longer resolve instability. Instead, stability is maintained by institutional buffer systems — most critically, the Federal Reserve's balance-sheet capacity and visible surplus buffers.

V. Implication for Statutory Architecture

This section is not meant to scare or persuade, but to help readers understand what the data is saying in simple terms.

A. When federal debt rises faster than normal (Exhibit A)

When a country's total debt grows slowly, it usually means the system has time to adjust. When debt grows very fast, it often means the system is being used to absorb stress. This does not

automatically mean failure — but it does mean the system is carrying more weight than it used to.

In simple terms:

Fast-rising debt often means the government is using borrowing as a way to keep things stable during difficult periods.

B. When the federal deficit becomes unstable (Exhibit B)

A stable deficit usually moves up and down in predictable ways. When the deficit starts swinging widely and unpredictably, it often means the system is under strain.

In simple terms:

A highly unstable deficit is like a warning light on a car's dashboard. It doesn't tell you exactly what is broken — but it tells you the engine is working much harder than before.

C. When government revenue grows but stability does not return (Exhibit C)

Normally, when revenue increases, systems become more stable. But the data shows revenue growing at the same time instability increases.

In simple terms:

Earning more money usually fixes problems. If it doesn't, it means the problem isn't only about money — it's about how the system is built and controlled.

D. Why this matters for laws and rules

Laws guide how a system works. If the system changes but the laws do not, the rules may no longer fit how the system actually behaves.

In simple terms:

When a machine changes, the manual has to change too. Writing laws without understanding how the system really behaves can cause more stress instead of less.

This section does not tell the reader what to think.

It simply explains what the components mean so that any reader — regardless of background — can understand what the system itself is communicating through the data.

VI. H.R. 3633 as Continuity-of-Government Legislation, Not Asset Classification

H.R. 3633 is commonly discussed in public discourse as a measure concerning digital assets, digital commodities, or digital-payment instruments. Such characterization is analytically incomplete. From a constitutional and institutional design perspective, the bill is more accurately understood as a continuity-of-government (COG) statute governing how the United States preserves sovereign monetary function under conditions of technological change and systemic stress.

The central question addressed by H.R. 3633 is not whether a particular class of assets should be permitted or prohibited. Rather, the operative question is whether the United States may maintain lawful, sovereign-grade monetary architecture as payment and settlement modalities evolve. In this sense, the statute addresses the operational continuity of critical national financial infrastructure, not the permissibility of private asset classes.

When viewed through this lens, the bill becomes analogous to prior continuity legislation governing:

- emergency powers,
- operational redundancy,
- institutional buffers, and
- infrastructure modernization under constitutional constraints.

This interpretation is consistent with the constitutional responsibility of Congress to preserve the operational integrity of the monetary system under Article I, Section 8, and with the national resilience frameworks established by HSPD-9 and PPD-21. H.R. 3633 therefore should be interpreted as a structural statute concerning the survivability and adaptability of sovereign monetary function under modern systemic conditions, rather than as an ideological dispute over financial innovation.

VII. Rationale for Striking Section 315

A. Structural Context

Since 2008, federal debt expansion, deficit volatility, and government shutdown frequency have migrated into a structurally elevated regime, as documented in Exhibits A–C. These trends establish that the United States now operates in an environment of chronic fiscal and institutional stress rather than episodic instability.

Within such a regime, traditional interpretations of “surplus” no longer reflect discretionary excess. Instead, institutional balance-sheet buffers increasingly operate as system-level shock absorbers required to stabilize market function, preserve institutional credibility, and maintain

operational continuity during fiscal and liquidity stress events. These findings are not normative conclusions but descriptive constraints derived from public fiscal series and institutional operating doctrine.

B. Functional Role of the Federal Reserve Surplus

The Federal Reserve's surplus account, in this environment, does not function as idle capital. It operates as visible institutional capacity that supports:

- market confidence,
- liquidity backstop credibility, and
- counter-panic signaling during systemic disruptions.

From a systems-stability perspective, these visible buffers function as stabilizing capital, not distributable excess.

C. Section 315 and Systemic Risk Amplification

Section 315 would reduce the statutory surplus cap of the Federal Reserve by approximately \$15 billion in 2035. Under conventional budget scoring, this reduction produces negligible fiscal relief. Under systems-risk analysis, however, the reduction diminishes visible institutional buffers at the very institution statutorily charged with market-level shock absorption during:

- fiscal crises,
- liquidity shocks, and
- confidence destabilization events.

The reduction therefore introduces asymmetrical risk: negligible fiscal benefit in exchange for measurable degradation of visible systemic resilience.

D. Continuity Implications

Within a continuity-of-government framework, statutory design must prioritize shock-absorption capacity over cosmetic balance-sheet compression. Reducing visible buffers does not materially improve solvency and may increase perceived fragility without enhancing true fiscal strength.

E. Legislative Conclusion

For these reasons, striking Section 315 is consistent with:

- continuity-of-government doctrine,
- critical-infrastructure protection frameworks, and

- constitutional responsibility to preserve operational monetary stability.

Striking the provision preserves the Federal Reserve's functional capacity to absorb future systemic shocks without increasing perceived solvency risk or compromising institutional independence. From a CRS and Legislative Counsel analytical perspective, this represents the more prudential statutory course.

Digital Asset Market Clarity Act of 2025

The revised structure of H.R. 3633 was developed through a methodologically disciplined process grounded in constitutional law, statutory continuity, and institutional stability analysis. The drafting objective was not to introduce ideological outcomes, nor to privilege emerging technologies as policy ends, but to ensure that evolving market realities could be integrated into the United States' existing legal architecture without destabilizing underlying constitutional or statutory frameworks.

The drafting process proceeded from three controlling principles.

First, the revision was conducted under a *continuity doctrine* approach, treating the United States financial system as critical national infrastructure whose legal architecture must remain internally coherent during technological evolution. This required mapping all proposed statutory language against existing frameworks governing commodities, securities, banking, and payments systems, rather than creating parallel or exceptional regimes.

Second, the rewrite was executed under a *non-partisan structural lens*. The legislative architecture was designed to avoid normative claims regarding the desirability or undesirability of digital assets as policy objectives. Instead, the bill was rebuilt around *jurisdictional clarity*, *definitional precision*, and *institutional coordination*, ensuring that regulatory authority arises from function and structure rather than political preference or market sentiment.

Third, the bill was aligned with *existing statutory rails* rather than constructed as a novel legal regime. Where possible, the revised language draws directly from established frameworks, including the Commodity Exchange Act, the Securities Act of 1933, the Securities Exchange Act of 1934, the Bank Secrecy Act, and existing Federal Reserve and Treasury operational authorities. The objective was not to expand power, but to harmonize existing authorities so that technological change does not create legal vacuums or overlapping jurisdictional conflict.

Throughout the drafting process, statutory language was evaluated against three technical criteria:

- definitional neutrality,
- jurisdictional determinacy, and
- operational feasibility within existing agency structures.

This approach treats legislation not as policy expression, but as *infrastructure design* — emphasizing durability, interpretive restraint, and long-term institutional coherence.

Accordingly, this revised framework does not posit new regulatory philosophies. Instead, it supplies Congress with a legally conservative architecture that preserves constitutional boundaries while enabling lawful market modernization.

In addition, following the Titles that implement this framework, this document includes a brief Author's Reflection on interagency integrity as a national-security safeguard — a caution drawn from a 100-year institutional lens. This reflection is not normative commentary but a structural reminder: legislative clarity and agency separation are themselves defenses against destabilization, foreign exploitation, and long-term erosions of public trust.

With these methodological foundations established, Title I introduces the definitional, rulemaking, and registration architecture that operationalizes this framework.

The following Title establishes the definitional clarity, rulemaking standards, and expedited registration pathways through which this continuity-based framework is implemented.

TITLE I—DEFINITIONS; RULEMAKING; **EXPEDITED REGISTRATION**

SEC. 101. DEFINITIONS UNDER THE SECURITIES ACT OF 1933.

Section 2(a) of the Securities Act of 1933 ([15 U.S.C. 77b\(a\)](#)) is amended by adding at the end the following:

“(20) DISTRIBUTED LEDGER TECHNOLOGY.—

The term ‘*Distributed Ledger Technology*’ means a computational architecture that:

- (A) creates a cryptographically secured, append-only record of transactions or state conditions across multiple, independently operating computational nodes;
- (B) achieves state finality exclusively through predetermined, mechanical consensus processes that are not subject to discretionary authority, override, or direction by any identifiable person or coordinated group; and
- (C) operates through publicly inspectable source code whose core operational logic is structurally immutable and incapable of discretionary alteration except by Act of Congress or binding order of a court of competent jurisdiction.

“(21) DISTRIBUTED LEDGER APPLICATION.—

The term ‘*Distributed Ledger Application*’ means executable software deployed to a distributed ledger system that:

- (A) performs only predefined mechanical functions; and
- (B) is structurally incapable of modifying, interpreting, or expanding its operational logic through voting, governance, privileged permissions, or discretionary upgrade mechanisms.

“(22) DISTRIBUTED LEDGER PROTOCOL.—

The term ‘*Distributed Ledger Protocol*’ means the foundational computational architecture governing network operation that:

- (A) executes validation and consensus exclusively through predetermined, non-discretionary processes;
- (B) contains no privileged access keys, override authorities, emergency controls, governance pathways, or discretionary permissions; and
- (C) is architecturally resistant to modification through human coordination, social consensus, off-chain influence, or informal control structures.

“(23) DISTRIBUTED LEDGER SYSTEM.—

The term ‘*Distributed Ledger System*’ means the integrated technical environment consisting of:

- (A) a distributed ledger protocol; and
- (B) any deployed distributed ledger applications,

only where the system, in its totality, is structurally incapable of discretionary governance, managerial control, parameter steering, or economically directional modification by any person or affiliated group.

“(24) GOVERNANCE SYSTEM.—

(A) IN GENERAL.—

The term ‘*Governance System*’ means any technical, legal, organizational, or social mechanism by which the rules, parameters, priorities, or economic outcomes of a Distributed Ledger System are influenced, directed, modified, proposed, coordinated, or enforced by identifiable persons or coordinated groups.

(B) LEGAL EFFECT.—

The existence of a Governance System shall constitute conclusive evidence of managerial control as a matter of law, regardless of whether such mechanism is described as “decentralized,” “community-based,” “token-driven,” “rules-based,” or by any similar terminology.

(C) DISQUALIFICATION.—

The presence of a Governance System shall, as a matter of law, disqualify the associated Distributed Ledger System from commodity classification and shall place such system within the jurisdictional scope of securities, fiduciary, or other applicable federal financial law.

“(25) DIGITAL ASSET.—

The term ‘*Digital Asset*’ means any digital representation of value, rights, interests, obligations, or economic authority that is recorded, transferred, or maintained through cryptographic or distributed computational infrastructure.

“(26) DIGITAL COMMODITY.—

The term ‘*Digital Commodity*’ means a Digital Asset that satisfies the constitutional and structural requirements of commodity status pursuant to the Anchored Decentralization Test (ADT), including the complete and verifiable absence of:

- (A) managerial control;
- (B) discretionary governance authority;
- (C) discretionary technical mutability; and
- (D) discretionary economic influence by any person or coordinated group.

“(27) DIGITAL COMMODITY AFFILIATED PERSON.—

The term ‘*Digital Commodity Affiliated Person*’ means any person who, with respect to a Digital Asset:

- (A) exercises or has exercised managerial, developmental, or strategic authority;
- (B) designed, authored, controlled, or materially supervised system architecture or evolution;

- (C) possesses or has possessed privileged technical access or override capability; or
- (D) holds economic influence exceeding de minimis thresholds as established by rule.

No structure, consortium, foundation, or organization described as “governance,” “community,” or similar shall be exempt where functional control exists.

“(28) DIGITAL ASSET ISSUER.—

(A) IN GENERAL.—

The term ‘*Digital Asset Issuer*’ means any person who:

- (i) creates, authors, deploys, sponsors, funds, or causes the creation of a Digital Asset; or
- (ii) induces or encourages reliance upon future functionality, managerial effort, development, or economic outcomes associated with such asset.

(B) ANTI-EVASION.—

It shall be unlawful for any person to evade issuer classification through the use of intermediaries, foundations, offshore entities, intellectual property transfers, nominal decentralization, or similar arrangements designed to obscure functional control.

“(29) DIGITAL ASSET RELATED PERSON.—

The term ‘*Digital Asset Related Person*’ means any person who:

- (A) materially contributed to system design, governance structure, economic model, promotional activity, or ecosystem steering; or
- (B) possesses or possessed privileged early access to supply, technical authority, coordination mechanisms, or economic control capacity.

“(30) DISTRIBUTION.—

The term ‘*Distribution*’ means any transfer, programmatic issuance, reward, allocation, dissemination, or conveyance of a Digital Asset, including but not limited to activity characterized as:

- mining,
- staking,
- incentive distribution,
- grants, or
- end-user allocations.

Legal Effect.—

Any Distribution occurring prior to demonstrable and verifiable structural neutrality shall be deemed an issuance as a matter of law.

“(31) STRUCTURALLY NEUTRAL SYSTEM.—

The term ‘*Structurally Neutral System*’ means a Distributed Ledger System that:

- (A) contains no managerial actor;
- (B) contains no governance mechanism;

- (C) is functionally immutable by architecture; and
- (D) exhibits no behavioral, economic, or strategic directional control.

“(32) PERMITTED PAYMENT SYSTEM.—

The term ‘*Permitted Payment System*’ means a congressionally authorized payment system that is:

- (A) regulator-readable;
- (B) reserve-attested; and
- (C) sovereign-compatible.

“(33) PERMITTED PAYMENT SYSTEM ISSUER.—

The term ‘*Permitted Payment System Issuer*’ means a person or regulated financial institution expressly authorized by Act of Congress to issue payment instruments operating exclusively within congressional monetary authority under Article I of the Constitution.

“(34) DIGITAL COMMODITY ISSUER.—

The term ‘Digital Commodity Issuer’ means any person that creates, mints, or originates a Digital Asset that qualifies as a Digital Commodity under section 1a of the Commodity Exchange Act, without regard to the method of creation, distribution, or transfer, and without implying:

- (A) that such creation constitutes a securities issuance;
- (B) that such person assumes ongoing managerial, governance, or discretionary authority over the Digital Commodity or any distributed ledger system; or
- (C) that the Digital Commodity is a security, financial instrument, or investment contract.”

No inference shall be drawn from this definition that converts a Digital Commodity or Digital Commodity Issuer into a security, investment contract, broker, dealer, underwriter, or money services business.

SEC. 102. DEFINITIONS UNDER THE SECURITIES EXCHANGE ACT OF 1934

Section 3(a) of the Securities Exchange Act of 1934 (15 U.S.C. § 78c(a)) is amended—

- (1) by redesignating existing paragraph (80) (relating to funding portals) as paragraph (81); and
- (2) by adding at the end the following:

“(82) BANK SECRECY ACT.—

The term ‘*Bank Secrecy Act*’ means:

- (A) section 21 of the Federal Deposit Insurance Act (12 U.S.C. § 1829b);
- (B) chapter 2 of title I of Public Law 91–508 (12 U.S.C. § 1951 et seq.); and
- (C) subchapter II of chapter 53 of title 31, United States Code.

“(83) DIGITAL COMMODITY-RELATED AND DISTRIBUTED SYSTEM TERMS.—

(A) SECURITIES ACT OF 1933 INCORPORATION.—

The following terms shall have the meanings assigned to them under section 2(a) of the Securities Act of 1933 (15 U.S.C. § 77b(a)), as constitutionally harmonized by the Doctrine of Anchored Decentralization (DAC):

- Distributed Ledger System,
- Governance System,
- Digital Asset,
- Digital Commodity Affiliated Person,
- Digital Asset Issuer,
- Digital Asset Related Person,
- Distribution,
- Structurally Neutral System,
- Permitted Payment System, and
- Permitted Payment System Issuer.

(B) COMMODITY EXCHANGE ACT INCORPORATION.—

The following terms shall have the meanings assigned to them under section 1a of the Commodity Exchange Act (7 U.S.C. § 1a), as constitutionally constrained by the Anchored Decentralization Test (ADT):

- Digital Commodity,
- Digital Commodity Broker,
- Digital Commodity Dealer,
- Digital Commodity Exchange,
- Decentralized Finance Messaging System, and
- Decentralized Finance Trading Protocol.

(C) CONSTITUTIONAL RULE OF CONSTRUCTION.—

In construing any term incorporated by reference under this paragraph, no court or agency shall rely upon:

- (i) industry usage or marketing characterization;
- (ii) self-attested claims of decentralization;
- (iii) semantic labeling absent structural proof; or
- (iv) functional resemblance unsupported by architectural fact.

Legal classification shall be determined exclusively by verifiable system structure, constitutional permissibility, and the absence or presence of managerial control.

“(16) TERMS RELATED TO DIGITAL COMMODITIES.—

(A) ASSOCIATED PERSON OF A DIGITAL COMMODITY BROKER.—

(i) IN GENERAL.—Except as provided in clause (ii), the term ‘*associated person of a digital commodity broker*’ means any person who is associated with a digital commodity broker as a

partner, officer, employee, or agent (or any person occupying a similar status or performing similar functions) in any capacity that involves —

(I) the solicitation or acceptance of an order for the purchase or sale of a Digital Commodity; or
(II) the supervision of any person engaged in the solicitation or acceptance of an order for the purchase or sale of a Digital Commodity.

(ii) EXCLUSION.—The term ‘*associated person of a digital commodity broker*’ does not include any person whose functions are solely clerical or ministerial.

(B) ASSOCIATED PERSON OF A DIGITAL COMMODITY DEALER.—

(i) IN GENERAL.—Except as provided in clause (ii), the term ‘*associated person of a digital commodity dealer*’ means any person who is associated with a digital commodity dealer as a partner, officer, employee, or agent (or any person occupying a similar status or performing similar functions) in any capacity that involves —

(I) the solicitation or acceptance of a contract for the purchase or sale of a Digital Commodity; or
(II) the supervision of any person engaged in the solicitation or acceptance of a contract for the purchase or sale of a Digital Commodity.

(ii) EXCLUSION.—The term ‘*associated person of a digital commodity dealer*’ does not include any person whose functions are solely clerical or ministerial.

(C) BANK SECRECY ACT.—

The term ‘*Bank Secrecy Act*’ means —

(i) section 21 of the Federal Deposit Insurance Act (12 U.S.C. 1829b);
(ii) chapter 2 of title I of Public Law 91–508 (12 U.S.C. 1951 et seq.); and
(iii) subchapter II of chapter 53 of title 31, United States Code.

(D) DECENTRALIZED FINANCE MESSAGING SYSTEM.—

(i) IN GENERAL.—The term ‘*Decentralized Finance Messaging System*’ means a software application or interface that —

(I) enables a user to create and submit an instruction, communication, or message directly to a Structurally Neutral System or a registered Digital Commodity Exchange for the purpose of executing a transaction; and

(II) does not, at any time, provide any person other than the user with custody, control, or discretionary authority over —

(aa) the user’s funds; or

(bb) the execution, sequencing, routing, or modification of the user’s transaction.

(ii) LIMITATION.—A system shall not be treated as a Decentralized Finance Messaging System if it —

(I) incorporates any Governance System;

(II) permits any person or group of persons to exercise discretionary control over order flow,

slippage, routing, or execution priority; or
(III) conditions access, pricing, or execution on discretionary human decision-making.

(E) DECENTRALIZED FINANCE TRADING PROTOCOL.—

(i) IN GENERAL.—The term ‘*Decentralized Finance Trading Protocol*’ means a Distributed Ledger System that—

- (I) executes transactions among multiple participants exclusively pursuant to pre-established, transparent, and non-discretionary code;
- (II) does not, at any time, confer custody, control, or discretionary execution authority over user assets to any Governance System or identifiable person; and
- (III) satisfies the requirements of a Structurally Neutral System, including the absence of managerial control, discretionary governance, and discretionary technical mutability.

(ii) EXCLUSIONS.—The term ‘*Decentralized Finance Trading Protocol*’ does not include any system if—

- (I) any person or group of persons, whether or not under common control, has the authority, directly or indirectly, by contract, Governance System, token-based voting, social coordination, or any other arrangement, to control or materially alter the functionality, operation, rules of consensus, fee structure, or economic parameters of the system; or
- (II) the system operates, executes, or enforces its operations and transactions through any mechanism that depends upon discretionary human judgment, off-chain decision-making, or Governance System approval.

(iii) LEGAL EFFECT.—The presence of any Governance System or discretionary upgrade pathway shall constitute conclusive evidence that the system is not a Decentralized Finance Trading Protocol for purposes of this Act, and shall remove such system from Digital Commodity treatment.

(F) DIGITAL COMMODITY.—

(i) IN GENERAL.—The term ‘*Digital Commodity*’ means a Digital Asset that—

- (I) is recorded, transferred, or effected on or through a Structurally Neutral System;
- (II) satisfies the Anchored Decentralization Test (ADT), including the complete absence of—
 - (aa) managerial control;
 - (bb) discretionary governance;
 - (cc) discretionary technical mutability; and
 - (dd) discretionary economic influence; and
- (III) is not otherwise a Security, security derivative, banking deposit, pooled investment vehicle, or other excluded asset described in clause (ii).

(ii) EXCLUSIONS.—The term ‘*Digital Commodity*’ does not include any of the following:

(I) SECURITY.— Any Security, other than a note, an investment contract, or a certificate of interest or participation in any profit-sharing agreement that itself satisfies subclause (i).

(II) SECURITY DERIVATIVE.— A Digital Asset that, based on its terms and other characteristics, is, represents, or is functionally equivalent to an agreement, contract, or transaction that is—

- (aa) a security future, as defined in section 2a of the Securities Act of 1933;
- (bb) a security-based swap, as defined in section 2a of the Securities Act of 1933;
- (cc) a put, call, straddle, option, or privilege on any Security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof); or
- (dd) a put, call, straddle, option, or privilege on any Security.

(III) PERMITTED PAYMENT STABLECOIN.— Any Digital Asset that is a Permitted Payment Stablecoin.

(IV) BANKING DEPOSIT.—

- (aa) Any deposit, as defined in section 3 of the Federal Deposit Insurance Act (12 U.S.C. 1813), regardless of the technology used to record the deposit; or
- (bb) any account, as defined in section 101 of the Federal Credit Union Act (12 U.S.C. 1752), regardless of the technology used to record the account.

(V) COMMODITY REFERENCE INSTRUMENT.— A Digital Asset that references, represents an interest in, or is functionally equivalent to—

- (aa) an agricultural commodity;
- (bb) an excluded commodity, other than a Security; or
- (cc) an exempt commodity, other than the Digital Commodity itself, as further defined by the Commission.

(VI) COMMODITY DERIVATIVE.— A Digital Asset that, based on its terms and other characteristics, is, represents, or is functionally equivalent to an agreement, contract, or transaction that is—

- (aa) a contract of sale of a commodity for future delivery or an option thereon;
- (bb) a security futures product;
- (cc) a swap;
- (dd) an agreement, contract, or transaction described in section 2(c)(2)(C)(i) or 2(c)(2)(D)(i);
- (ee) a commodity option authorized under section 4c; or
- (ff) a leverage transaction authorized under section 19.

(VII) POOLED INVESTMENT VEHICLE.—

(aa) IN GENERAL.— A Digital Asset not described in subclause (I) shall be deemed a pooled investment vehicle where such asset, smart contract, protocol, or associated system, based on its design or operation, is functionally equivalent to an interest in—

- (AA) a commodity pool, as defined in this Act; or
- (BB) a pooled investment vehicle.

(bb) POOLED INVESTMENT VEHICLE DEFINED.— For purposes of this subclause, the term ‘pooled investment vehicle’ means—

(AA) any investment company as defined in section 3(a) of the Investment Company Act of 1940 (15 U.S.C. § 80a-3(a));

(BB) any company that would be an investment company under section 3(a) of such Act but for the exclusions set forth in section 3(c) of such Act, assuming such company were an issuer; or

(CC) any smart contract, protocol, digital system, automated arrangement, or coordinated computational structure that—

- (i) aggregates capital, digital assets, or economic exposure from multiple persons;
- (ii) allocates risk, returns, or economic outcomes through programmatic or algorithmic processes; and
- (iii) creates a reasonable expectation of profit, yield, or value appreciation derived primarily from system design rather than individual managerial effort.”

(VIII) GOOD, COLLECTIBLE, AND OTHER NON-COMMODITY ASSET.— A Digital Asset whose primary value, utility, or significance arises from non-financial characteristics, including the digital equivalent of—

- (aa) a work of art, musical composition, literary work, or other intellectual property;
- (bb) collectibles, merchandise, virtual land, or video-game assets;
- (cc) affinity, rewards, or loyalty points, including airline miles or credit-card points, that are not primarily speculative in nature; or
- (dd) rights, licenses, tickets, or access privileges.

(iii) RULE OF CONSTRUCTION.—

(I) No presumption shall exist that any Digital Asset is a Digital Commodity.

(II) The presence of any Governance System, voting rights over protocol rules, or reliance on managerial effort or coordinated human activity to sustain, modify, or grow the system shall constitute evidence of managerial control and shall disqualify the asset from Digital Commodity status.

(III) The potential for price appreciation or depreciation of a Digital Asset, by itself, shall not determine whether the asset is a Digital Commodity; the controlling factor is structural neutrality and the absence or presence of managerial control.

(G) DIGITAL COMMODITY BROKER.—

(i) IN GENERAL.— The term ‘*Digital Commodity Broker*’ means any person who, as a regular business—

(I) solicits or accepts an order from a customer for—

- (aa) the purchase or sale of a Digital Commodity; or
- (bb) an agreement, contract, or transaction described in section 2(c)(2)(D)(iv); and, in conjunction with such activity, accepts or maintains control over—
 - (AA) the funds or Digital Commodities of any customer; or
 - (BB) the execution of any transaction of a customer;

(II) solicits or accepts orders from a customer for the purchase or sale of a unit of a Digital Commodity on or subject to the rules of a registered entity; or
(III) is registered with the Commission as a Digital Commodity Broker.

(ii) EXCEPTIONS.—The term ‘*Digital Commodity Broker*’ does not include a person solely because the person—

(I) solicits or accepts an order described in clause (i)(I)(aa) from a customer who is an eligible contract participant;
(II) enters into one or more Digital Commodity transactions that are attributable or solely incidental to making, sending, receiving, or facilitating payments, whether involving a payment service provider or on a peer-to-peer basis; or
(III) is a bank (as defined in section 3(a) of the Securities Exchange Act of 1934) engaging in banking activities with respect to a Digital Commodity in the same or a similar manner as a bank is excluded from the definition of a broker under such section, as determined by the Commission.

(iii) FURTHER DEFINITION.—The Commission, by rule or regulation, may exclude from the term ‘*Digital Commodity Broker*’ any person or class of persons if the Commission determines that such exclusion will effectuate the purposes of this Act and will not undermine the structural neutrality requirements governing Digital Commodities.

(H) DIGITAL COMMODITY DEALER.—

(i) IN GENERAL.—The term ‘*Digital Commodity Dealer*’ means any person who, as a regular business—

(I) is, or offers to be, a counterparty to a person for the purchase or sale of a Digital Commodity, and, in conjunction with such activity, accepts or maintains control over the funds or Digital Commodities of any counterparty; or
(II) is registered with the Commission as a Digital Commodity Dealer.

(ii) EXCEPTION.—The term ‘*Digital Commodity Dealer*’ does not include a person solely because the person—

(I) is or offers to be a counterparty to a person who is an eligible contract participant;
(II) enters into a Digital Commodity transaction with an eligible contract participant;
(III) enters into a Digital Commodity transaction on or through a registered Digital Commodity Exchange, with a registered Digital Commodity Broker, or through a Decentralized Finance Trading Protocol that satisfies subparagraph (E);
(IV) enters into a Digital Commodity transaction for the person’s own account, either individually or in a fiduciary capacity, but not as part of a regular business;
(V) enters into one or more Digital Commodity transactions that are attributable or solely incidental to making, sending, receiving, or facilitating payments, whether involving a payment service provider or on a peer-to-peer basis; or
(VI) is a bank (as defined in section 3(a) of the Securities Exchange Act of 1934) engaging in banking activities with respect to a Digital Commodity in the same or a similar manner as a bank is excluded from the definition of a dealer under section 3(a)(5) of such Act, as determined by the Commission.

(iii) FURTHER DEFINITION.—The Commission, by rule or regulation, may exclude from the term ‘*Digital Commodity Dealer*’ any person or class of persons if the Commission determines that such exclusion will effectuate the purposes of this Act and will not dilute the structural neutrality requirements governing Digital Commodities.

(I) DIGITAL COMMODITY EXCHANGE.—

The term ‘*Digital Commodity Exchange*’ means a trading facility that offers or seeks to offer a cash or spot market in at least one Digital Commodity and does not perform, directly or indirectly, any Governance System functions with respect to such Digital Commodity or the underlying Structurally Neutral System.

(J) MIXED DIGITAL ASSET TRANSACTION.—

The term ‘*Mixed Digital Asset Transaction*’ means a transaction in which a Digital Commodity is traded for a Security, or a Security is traded for a Digital Commodity.

(K) TERMS DEFINED UNDER THE SECURITIES ACT OF 1933.—

The terms ‘*Distributed Ledger System*’, ‘*Governance System*’, ‘*Digital Asset*’, ‘*Digital Commodity Affiliated Person*’, ‘*Digital Asset Issuer*’, ‘*Digital Asset Related Person*’, ‘*Distribution*’, ‘*Structurally Neutral System*’, ‘*Permitted Payment System*’, and ‘*Permitted Payment System Issuer*’ have the meanings given those terms, respectively, under section 2(a) of the Securities Act of 1933 (15 U.S.C. 77b(a)), as amended to incorporate the Doctrine of Anchored Decentralization.”

SEC. 104. DEFINITIONS UNDER THIS ACT

SEC. 104. DEFINITIONS.

For purposes of this Act:

(1) DEFINITIONS INCORPORATED FROM THE COMMODITY EXCHANGE ACT.

The terms “Decentralized Finance Messaging System,” “Decentralized Finance Trading Protocol,” “Digital Commodity,” “Digital Commodity Broker,” “Digital Commodity Dealer,” “Digital Commodity Exchange,” and “Mixed Digital Asset Transaction” shall have the meanings assigned to such terms under section 1a of the Commodity Exchange Act (7 U.S.C. 1a), as constrained by the Anchored Decentralization Test (ADT) and as applied through structural—not functional—analysis.

No term incorporated under this paragraph shall be interpreted to expand, narrow, or evade constitutional jurisdictional boundaries.

(2) DEFINITIONS INCORPORATED FROM THE SECURITIES ACT OF 1933.

The terms “Distributed Ledger Technology,” “Distributed Ledger System,” “Distributed Ledger Protocol,” “Governance System,” “Digital Asset,” “Digital Asset Issuer,” “Structurally Neutral System,” “End-User Distribution,” “Mature Distributed Ledger System,” “Permitted Payment System,” and “Permitted Payment System Issuer” shall have the meanings assigned under section 2(a) of the Securities Act of 1933 (15 U.S.C. 77b(a)).

These terms shall be interpreted by architectural structure rather than economic effect or policy outcome and shall be determinable solely by observable technical and legal control mechanisms.

(3) DEFINITIONS INCORPORATED FROM THE SECURITIES EXCHANGE ACT OF 1934. The terms “Bank Secrecy Act,” “Securities Laws,” and “Self-Regulatory Organization” shall have the meanings assigned under section 3(a) of the Securities Exchange Act of 1934 (15 U.S.C. 78c(a)).

Such terms shall apply only where jurisdiction is constitutionally valid and shall not be extended by implication, rulemaking, or guidance to structurally neutral systems.

(4) RULE OF CONSTRUCTION — ARCHITECTURAL SUPREMACY.

In the event of any conflict between a functional interpretation and a structural interpretation of any term used in this Act, structural interpretation shall control as a matter of law. Where any ambiguity exists, engineering structure and verifiable technical properties shall control as a matter of law.

(5) RULE OF CONSTRUCTION — PREVENTION OF INTERPRETIVE DRIFT.

No agency guidance, interpretive release, policy statement, or enforcement position shall alter, expand, or contract the meaning of any term defined under this Act unless expressly authorized by Congress through subsequent legislative enactment.

(6) RULE OF CONSTRUCTION — CONSTITUTIONAL SUPREMACY.

No definition in this Title shall be construed to imply, alter, expand, diminish, or reallocate sovereign monetary authority vested in Congress or delegated to the Federal Reserve System.

SEC. 105 RULEMAKING

SEC. 105(a). JOINT CLARIFICATION AUTHORITY; LIMITS ON CONSTRUCTION

(a) Joint Clarification Authority.

The Commodity Futures Trading Commission and the Securities and Exchange Commission shall jointly promulgate binding rules establishing objective, structural, and empirically verifiable standards for the consistent mechanical application of the following statutory terms, solely for the purpose of ensuring accurate statutory alignment:

(1) the terms “blockchain”, “blockchain application”, “Mature Distributed Ledger System”, “blockchain protocol”, “decentralized governance system”, “digital commodity affiliated person”, “digital commodity issuer”, “digital commodity related person”, and “end user distribution”, as defined in section 2(a) of the Securities Act of 1933;

(2) the term “unilateral authority”, as referenced in section 42 of the Securities Exchange Act of 1934 and section 1a of the Commodity Exchange Act;

(3) the term “programmable functioning”, as referenced in section 4C of the Securities Act of 1933, section 42 of the Securities Exchange Act of 1934, and section 1a of the Commodity Exchange Act; and

(4) the terms “digital commodity”, “decentralized finance messaging system”, and “decentralized finance trading protocol”, as defined in section 1a of the Commodity Exchange Act.

Such rules shall be limited to structural measurement, operational verification, and mechanical statutory alignment.

(b) Rule of Statutory Confinement.

Rules promulgated under this subsection may not:

- (1) expand statutory definitions enacted by Congress;
- (2) narrow or contract statutory definitions enacted by Congress;
- (3) alter jurisdictional boundaries between federal agencies;
- (4) create interpretive presumptions not expressly authorized by statute; or
- (5) substitute agency policy judgment for congressional instruction.

(c) Financial Stability Construction (Narrow).

Nothing in this section shall be construed to limit the authority of the Secretary of the Treasury or the Board of Governors of the Federal Reserve System to engage in interagency consultation in the event of demonstrable systemic risk, provided that no such consultation may be used to expand substantive regulatory jurisdiction without express congressional authorization.

SEC. 105(b). Mixed Digital Asset Transactions

(b) Joint Rules for Mixed Digital Asset Transaction Classification.

The Securities and Exchange Commission and the Commodity Futures Trading Commission shall jointly promulgate binding rules establishing a standardized, objective process for the classification and segregation of transactions that contain both digital commodity and security components.

Such rules shall be limited to:

- (1) establishing objectively verifiable, structure-based criteria to determine when a transaction contains both a digital commodity component and a security component;
- (2) prescribing the statutory treatment of each component according to its inherent structural attributes, independent of:
 - (A) economic theory;
 - (B) market prediction; or
 - (C) agency policy preference; and

(3) preventing jurisdictional overlap, duplication, or expansion beyond the authority expressly granted by Congress.

Rules promulgated under this subsection may not:

- (A) alter, rewrite, or redefine statutory asset classifications enacted by Congress;
- (B) create irrebuttable presumptions of securities status;
- (C) expand regulatory jurisdiction by interpretive inference; or
- (D) impose disclosure, registration, licensing, or compliance obligations except where expressly required by statute.

(c) Resolution of Interagency Disputes.

In the event of a classification disagreement between the Commissions, the rule shall require formal joint written findings and submission of the issue to the Financial Stability Oversight Council for final classification guidance, without expanding statutory jurisdiction.

SEC. 105(c). PROTECTION OF LAWFUL SELF-CUSTODY

(c) Protection of Lawful Self-Custody.

(1) Right to Personal Custody.

Any United States person shall retain the right to maintain and use hardware or software mechanisms for the lawful self-custody of digital assets, solely for that person's own lawful purposes, subject to applicable Federal criminal law and court-authorized process.

No rule, regulation, guidance, or interpretive action by any Federal agency may prohibit, impair, or condition the lawful self-custody of digital assets except pursuant to express statutory authority or lawful judicial process.

(2) Lawful Peer-to-Peer Transactions.

A United States person may engage in direct peer-to-peer transfers of digital assets using self-custody mechanisms, provided that:

- (A) the transaction does not involve a person acting as a financial institution as defined in section 5312 of title 31, United States Code;
- (B) the transaction does not involve property or interests in property that are blocked or prohibited under Federal sanctions law; and
- (C) the transaction is not conducted for purposes of fraud, money laundering, terrorism, narcotics trafficking, human trafficking, or any other unlawful activity under Federal law.

(3) Scope of Application.

This subsection applies exclusively to:

- (A) personal, non-custodial use by natural persons; and
- (B) shall not be construed to apply to any person acting in a fiduciary, custodial, brokerage, dealer, intermediary, agency, or representative capacity for another person.

(4) Rule of Construction.

Nothing in this subsection shall be construed to limit or impair the authority of Federal, State, or local law-enforcement agencies to investigate, prosecute, or bring civil or criminal actions concerning:

- (A) illicit finance;
- (B) money laundering;
- (C) terrorism financing;
- (D) sanctions evasion;
- (E) fraud or market manipulation; or
- (F) any other violation of Federal law.

SEC. 105(c)(3). RULE OF CONSTRUCTION

(3) Rule of Construction.

Nothing in this subsection shall be construed to diminish, impair, or otherwise limit the lawful enforcement, supervisory, investigatory, examination, or regulatory authority expressly granted by statute to any Federal agency, including the Secretary of the Treasury, the Securities and Exchange Commission, the Commodity Futures Trading Commission, the Board of Governors of the Federal Reserve System, the Comptroller of the Currency, the Federal Deposit Insurance Corporation, or the National Credit Union Administration, to conduct investigations, examinations, enforcement actions, supervisory actions, or to impose special measures as authorized by Federal law.

Such authorities expressly include, but are not limited to, powers arising under:

- (A) the Bank Secrecy Act (12 U.S.C. §1829b; 12 U.S.C. §1951 et seq.; 31 U.S.C. §5311 et seq.);
- (B) section 311 of the USA PATRIOT Act (31 U.S.C. §5318A);
- (C) section 9714 of the Combating Russian Money Laundering Act (31 U.S.C. §5318A note);
- (D) section 7213A of the Fentanyl Sanctions Act (21 U.S.C. §2313a); and
- (E) any other Federal statute relating to illicit finance, money laundering, terrorism financing, prudential supervision, safety and soundness, or United States economic sanctions.

Nothing in this Title shall be construed to impair, restrict, or diminish the lawful investigatory, surveillance, intelligence, or national-security authorities of any Federal, State, or local agency where such authorities are exercised pursuant to: (A) a judicial warrant or court order; (B) express statutory authorization; or (C) national-security or foreign-intelligence authorities established under Federal law.

Nothing herein shall be interpreted to create any limitation, inference, or presumption that alters existing jurisdiction, supervisory discretion, investigatory authority, or enforcement powers exercised under the Constitution and the laws of the United States.

SEC. 105(d). JOINT RULEMAKING FOR DELISTING

(d) Joint rulemaking for delisting.

Not later than 180 days after the date of enactment of this Act, the Commodity Futures Trading Commission and the Securities and Exchange Commission shall jointly promulgate regulations establishing a uniform, transparent, and structured process by which a digital asset may be delisted for trading under section 106 of this Act.

Such regulations shall provide that a digital asset may be delisted only upon an express written determination, supported by documented findings of fact and law, that continued listing is inconsistent with:

- (1) the Commodity Exchange Act;
- (2) the federal securities laws (including regulations promulgated thereunder); or
- (3) the express provisions of this Act.

The rules issued under this subsection shall ensure that delisting determinations are grounded in statutory authority, reasoned analysis, and documented evidentiary support, while preserving the ability of the Commissions to take appropriate actions necessary to protect market integrity and the public interest in accordance with law.

SEC. 105(e). PORTFOLIO MARGINING

(e) Joint rules for portfolio margining determinations.

(1) In General.

Not later than 360 days after the date of enactment of this Act, the Commodity Futures Trading Commission and the Securities and Exchange Commission shall jointly promulgate regulations establishing a structured, transparent, and risk-calibrated process through which persons registered with either Commission may petition for a joint written order authorizing portfolio margining across legally permissible classes of financial instruments.

Such regulations shall apply solely to accounts held in:

- (A) a securities account carried by a registered broker or dealer;
- (B) a security-based swap account carried by a registered security-based swap dealer;
- (C) a futures or cleared swap account carried by a registered futures commission merchant;
- (D) a swap account carried by a registered swap dealer; or
- (E) a digital commodity account carried by a registered digital commodity broker or digital commodity dealer, to the extent such accounts hold other instruments lawfully eligible for portfolio treatment.

(2) Required Process.

The rules issued under this subsection shall require:

- (A) that a joint order may be issued only upon an express written finding that such order is consistent with the public interest, investor and customer protection, and the preservation of market integrity;
- (B) submission of a standardized written application;
- (C) issuance of a final agency determination within a reasonable period following receipt of a complete application;
- (D) structured solicitation and consideration of public comment, as appropriate; and
- (E) formal consultation with relevant Federal regulators, including the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Comptroller of the Currency.

Any authorization of portfolio margining under this subsection shall be grounded in express statutory authority and implemented through duly promulgated regulations consistent with the respective mandates of the Commissions.

SEC. 105(f). CAPITAL REQUIREMENTS RELATING TO NETTING AGREEMENTS

(f) Capital requirements relating to netting agreements.

Not later than 360 days after the date of enactment of this Act, the Board of Governors of the Federal Reserve System, the Comptroller of the Currency, and the Federal Deposit Insurance Corporation shall jointly promulgate regulations establishing risk-based and leverage-based capital requirements for:

- (1) insured depository institutions;
- (2) depository institution holding companies; and
- (3) nonbank financial companies supervised by the Board of Governors,

with respect to netting agreements that provide for termination and close-out netting across multiple classes of financial transactions in the event of counterparty default.

Such regulations shall:

- (A) be grounded in express statutory authority;
- (B) be consistent with existing prudential supervisory frameworks, including prompt corrective action, orderly liquidation, and systemic-risk mitigation regimes;
- (C) be harmonized, to the maximum extent practicable, with internationally recognized risk-based capital standards; and
- (D) preserve the ability of the respective agencies to act in good-faith fulfillment of their statutory mandates.

Nothing in this subsection shall be construed to expand, diminish, or displace the lawful authority of the Board of Governors, the Comptroller of the Currency, or the Federal Deposit Insurance Corporation.

SEC. 106. PRESERVATION OF EXISTING COMMODITY AND SECURITIES JURISDICTION

(a) Savings Clause — Absolute Prohibition on Jurisdictional Drift

Nothing in this Act shall be construed, interpreted, or applied to alter, expand, limit, displace, preempt, or affect the application of the Commodity Exchange Act or the federal securities laws with respect to the following agreements, contracts, transactions, or activities:

(1) Any agreement, contract, or transaction that is subject to the Commodity Exchange Act as —

(A) a contract of sale of a commodity for future delivery, or an option on such a contract;

(B) a swap;

(C) a security futures product;

(D) an option authorized under section 4c of the Commodity Exchange Act;

(E) an agreement, contract, or transaction described in section 2(c)(2)(C)(i) of the Commodity Exchange Act; or

(F) a leverage transaction authorized under section 19 of the Commodity Exchange Act.

(2) Any agreement, contract, or transaction that is subject to the federal securities laws as —

(A) a security-based swap;

(B) a security futures product; or

(C) an option on or based upon the value of a security.

(3) Any activity by any person with respect to any agreement, contract, or transaction described in paragraphs (1) or (2).

Nothing in this Act shall be construed to create implied authority, derivative jurisdiction, supervisory displacement, or regulatory expansion over such activities absent an express statutory amendment enacted by Congress.

Nothing in this Act shall be interpreted to preempt, displace, dilute, suspend, or condition any enforcement, supervisory, examination, investigatory, or rulemaking authority of the Commodity Futures Trading Commission or the Securities and Exchange Commission.

(b) Prohibition on Unauthorized Derivatives Activity by Spot Digital Commodity Entities

Registration under this Act as a digital commodity exchange, digital commodity broker, or digital commodity dealer shall not, by itself, authorize any person to engage in, offer, list, solicit, facilitate, execute, clear, margin, guarantee, or otherwise participate in any agreement, contract, or transaction described in subsection (a)(1) or (a)(2).

Any such activity shall remain prohibited unless independently authorized under the Commodity Exchange Act or the federal securities laws.

Registration under this Act shall not be construed as:

- a substitute license;
- an implied derivatives authority;
- a waiver of existing statutory restrictions; or
- a modification of existing registration requirements under other federal law.

Listing, referencing, tokenizing, mirroring, replicating, wrapping, or synthetically reproducing derivatives-type economic exposure shall not be deemed permissible absent express authorization under the governing statutes.

(c) Definitions — Misclassification Hardening Clause

For purposes of this section, all terms shall have the meanings assigned to them under the Commodity Exchange Act and the federal securities laws, as applicable.

No term used in this section may be redefined by rulemaking under this Act unless expressly authorized by Congress.

Misclassification Risk Safeguard. —

Nothing in this Act shall be construed to require, presume, imply, or induce any categorical determination regarding the legal classification of any asset, digital object, protocol, or system.

Nothing in this Act shall be interpreted to:

- preclude the possibility of misclassification,
- foreclose judicial review,
- limit constitutional interpretation, or
- impair enforcement authority

where the economic reality of an instrument, transaction, or architecture warrants recharacterization under existing law.

Judicial and Constitutional Preservation Clause. —

For avoidance of doubt, nothing in this subsection shall be construed to inhibit constitutional or judicial interpretation of statutory terms, nor to impair enforcement authority during periods of doctrinal, technological, or jurisprudential evolution.

SEC. 107. PRESERVATION OF EXISTING COMMODITY AND SECURITIES JURISDICTION.

(a) Savings Clause — Core Prohibition on Jurisdictional Drift.

Nothing in this Act shall be construed, interpreted, or applied to alter, expand, limit, displace, preempt, or affect the application of the Commodity Exchange Act or the federal securities laws with respect to the following agreements, contracts, transactions, or activities:

- (1) Any agreement, contract, or transaction that is subject to the Commodity Exchange Act as —
 - (A) a contract of sale of a commodity for future delivery, or an option on such a contract;

- (B) a swap;
- (C) a security futures product;
- (D) an option authorized under section 4c of the Commodity Exchange Act;
- (E) an agreement, contract, or transaction described in section 2(c)(2)(C)(i) of the Commodity Exchange Act; or
- (F) a leverage transaction authorized under section 19 of the Commodity Exchange Act.

(2) Any agreement, contract, or transaction that is subject to the securities laws as —

- (A) a security-based swap;
- (B) a security futures product; or
- (C) an option on or based upon the value of a security.

(3) Any activity by any person with respect to any agreement, contract, or transaction described in paragraphs (1) or (2).

Nothing in this Act shall be construed to create implied authority, derivative jurisdiction, supervisory displacement, or regulatory expansion over such activities absent an express statutory amendment enacted by Congress.

This Act shall not be interpreted to preempt, displace, or dilute any enforcement, supervisory, examination, or rulemaking authority of the Commodity Futures Trading Commission or the Securities and Exchange Commission.

(b) Prohibition on Unauthorized Derivatives Activity by Spot Digital Commodity Entities. Registration under this Act as a digital commodity exchange, digital commodity broker, or digital commodity dealer shall not, by itself, authorize any person to engage in, offer, list, solicit, facilitate, execute, clear, margin, guarantee, or otherwise participate in any agreement, contract, or transaction described in subsection (a)(1) or (a)(2).

Any such activity shall remain prohibited unless independently authorized under the Commodity Exchange Act or the federal securities laws.

Registration under this Act shall not be construed as:

- a substitute license;
- an implied derivatives authority;
- a waiver of existing statutory restrictions; or
- a modification of existing registration requirements under other federal law.

Listing, referencing, tokenizing, mirroring, or synthetically replicating a derivatives-type exposure shall not be deemed permissible absent express authorization under the governing statutes.

(c) Definitions.

For purposes of this section, all terms shall have the meanings assigned to them under the Commodity Exchange Act and the federal securities laws, as applicable.

No term used in this section may be redefined by rulemaking under this Act unless expressly authorized by Congress.

SEC. 108. ADMINISTRATIVE REQUIREMENTS

Section 4c(a) of the Commodity Exchange Act (7 U.S.C. § 6c(a)) is amended as follows:

(a) Expansion of Covered Transaction Types.

Paragraph (3) is amended—

(A) in subparagraph (B), by striking “or” at the end;

(B) in subparagraph (C), by striking the period and inserting “; or”; and

(C) by adding at the end the following new subparagraph:

“(D) a contract of sale of a commodity, including any contract whose terms, performance, memorialization, or settlement are evidenced, recorded, or facilitated through distributed ledger or functionally equivalent technological systems.”

(b) Harmonization of Prohibited Transaction Authorities.

Paragraph (4) is amended—

(1) In subparagraph (A)—

(A) in clause (ii), by striking “or” at the end;

(B) in clause (iii), by striking the period and inserting “; or”; and

(C) by adding at the end the following new clause:

“(iv) a contract of sale of a commodity, including any contract whose terms, performance, memorialization, or settlement are evidenced, recorded, or facilitated through distributed ledger or functionally equivalent technological systems.”

(2) In subparagraph (B)—

(A) in clause (ii), by striking “or” at the end;

(B) in clause (iii), by striking the period and inserting “; or”; and

(C) by adding at the end the following new clause:

“(iv) a contract of sale of a commodity, including any contract whose terms, performance, memorialization, or settlement are evidenced, recorded, or facilitated through distributed ledger or functionally equivalent technological systems.”

(3) In subparagraph (C)—

(A) in clause (ii), by striking “or” at the end;

(B) by striking clause (iii) and inserting the following:

“(iii) a swap; or

(iv) a contract of sale of a commodity, including any contract whose terms, performance, memorialization, or settlement are evidenced, recorded, or facilitated through distributed ledger or functionally equivalent technological systems, provided, however,”

(C) by striking “clauses (i), (ii), or (iii)” and inserting “clauses (i) through (iv)”.

SEC. 109. TREATMENT OF CERTAIN NON-CONTROLLING DISTRIBUTED LEDGER DEVELOPERS AND INFRASTRUCTURE PROVIDERS.

(a) Non-Custodial Technical Activity Safe Harbor.

Notwithstanding any other provision of Federal law solely for purposes of definitional classification under Federal money transmission laws, a non-controlling blockchain developer or non-controlling provider of a blockchain service shall not be treated as a money transmitter, nor deemed to be engaged in “money transmission,” solely by reason of the following conduct:

(1) the creation, authorship, publication, or maintenance of software that enables the operation or functionality of a blockchain network or distributed ledger service;

(2) the provision of hardware, firmware, or software that enables an individual to maintain independent custody or control of that individual’s own digital assets; or

(3) the provision of computational, data, or network infrastructure that supports the passive technical availability or operational continuity of a Mature Distributed Ledger System, where such provider does not exercise discretionary control over user transactions.

(b) Preservation of Anti-Money-Laundering, Sanctions, and Consumer Protection Authority.

Nothing in this section shall be construed to—

(1) exempt any person from classification as a money transmitter or financial institution under Federal or State law where such person engages in activity beyond the technical conduct described in subsection (a);

(2) limit the authority of the Secretary of the Treasury, the Financial Crimes Enforcement Network, or any Federal or State agency to apply or enforce the Bank Secrecy Act, economic sanctions laws, counter-terrorism financing laws, or other applicable financial crime statutes;

(3) limit the authority of the Bureau of Consumer Financial Protection under Federal consumer financial law; or

(4) create any presumption that technical neutrality constitutes regulatory immunity.

(c) Effect on Other Bodies of Law.

(1) Intellectual Property.

Nothing in this section shall be construed to modify, expand, limit, or impair any right or remedy available under Federal or State intellectual property law.

(2) State Law.

Nothing in this section shall be construed to preempt State law except to the extent that such law is inconsistent with this section. Consistent State laws shall remain fully enforceable.

(d) Definitions.

(1) Blockchain Developer.

The term “blockchain developer” means any person or entity that creates, authors, publishes, or maintains software that facilitates the formation or operational continuity of a blockchain system.

(2) Blockchain Service.

The term “blockchain service” means a computational or network-based system that enables multiple users to read from, write to, or interact with a blockchain network.

(3) Non-Controlling Blockchain Developer or Provider.

The term “non-controlling blockchain developer or provider of a blockchain service” means any person or entity that, in the regular course of business:

(A) does not possess legal authority to unilaterally initiate, approve, reverse, alter, or prohibit user transactions;

(B) does not control user funds, private keys, or transaction authorization mechanisms; and

(C) lacks independent discretionary power to direct, compel, or effectuate transactions involving digital assets without user-originated authorization.

SEC. 110. APPLICATION OF THE BANK SECRECY ACT

(a) Amendment to Definition of Financial Institution.

Section 5312(c)(1)(A) of title 31, United States Code, is amended—

(1) by inserting “digital commodity broker, digital commodity dealer,” after “futures commission merchant”; and

(2) by inserting before the period the following:

“and any digital commodity exchange that is registered, or required to be registered, under the Commodity Exchange Act and that permits direct customer transactional access.”

(b) Tailored Bank Secrecy Act Requirements.

(1) Rulemaking Authority.

The Secretary of the Treasury, acting through the Director of the Financial Crimes Enforcement Network, shall, in consultation with the Commodity Futures Trading Commission, issue regulations applying the requirements of the Bank Secrecy Act (31 U.S.C. §§ 5311 et seq.) and section 5318(h) to digital commodity brokers, digital commodity dealers, and digital commodity exchanges.

Such regulations shall be risk-calibrated, size-proportionate, and operationally tailored to the actual custody, control, counterparty exposure, and functional risk profile of the covered entity.

(2) Required Compliance Programs.

Each covered entity shall implement and maintain a written anti-money laundering and counter-terrorism financing program that includes, at minimum:

(A) a documented, periodic risk assessment proportionate to the entity’s transactional, custodial, counterparty, and jurisdictional risk profile;

(B) internal policies, procedures, and controls reasonably designed to prevent money laundering, terrorist financing, sanctions evasion, facilitation of prohibited transactions, and other unlawful use of the entity’s services;

(C) designation of qualified personnel responsible for ongoing compliance oversight and program effectiveness;

(D) a continuing employee training program appropriate to the entity’s operational, technological, and geographic risk exposure; and

(E) an independent testing or audit mechanism to evaluate program effectiveness, proportional to the entity’s operational scale and risk profile.

(3) Recordkeeping and Monitoring Obligations.

Each covered entity shall—

(A) maintain records of transactions in a manner sufficient to support lawful investigations, supervisory examinations, and enforcement actions;

- (B) monitor for, detect, and report suspicious transactions in accordance with applicable law; and
- (C) where operationally relevant, utilize distributed ledger, blockchain, or advanced analytics tools as supplementary monitoring, typology development, and risk-detection functions.

(4) Customer Identification and Due Diligence.

Each covered entity shall maintain and operate a customer identification and due diligence program that—

- (A) verifies the identity of account holders;
- (B) applies customer risk-rating and due diligence measures proportionate to transaction, custody, and jurisdictional exposure;
- (C) applies enhanced due diligence where required by law or regulation; and
- (D) identifies and verifies beneficial owners and controlling persons consistent with Treasury regulations and the Customer Due Diligence Rule framework.

(c) Sanctions Compliance.

A digital commodity broker, digital commodity dealer, or digital commodity exchange shall comply in full with all laws, regulations, and directives administered by the Office of Foreign Assets Control, including requirements relating to—

- (A) transaction screening;
- (B) sanctions evasion risk;
- (C) jurisdictional and geolocation exposure; and
- (D) prohibited services to blocked persons, jurisdictions, or activities, including facilitation or indirect provision of such services.

Nothing in this section shall be construed to limit or modify the strict-liability nature of sanctions violations under applicable law, including liability for attempt, conspiracy, or aiding and abetting.

SEC. 111. RULE OF CONSTRUCTION — ETHICS PRESERVATION AND CONFLICT PROHIBITIONS.

(a) Preservation of Existing Ethics Authorities.

Nothing in this Act, or any amendment made by this Act, shall be construed to limit, supersede, preempt, or otherwise alter the continued application of—

- (1) Federal ethics statutes administered by the Office of Government Ethics;
- (2) the ethics rules and enforcement authorities of the Senate and the House of Representatives;

and

(3) criminal conflict-of-interest statutes, including section 208 of title 18, United States Code, and sections 2635.702 and 2635.802 of title 5, Code of Federal Regulations.

(b) Absolute Prohibition on Issuance by Government Officials.

For the avoidance of doubt, and as a matter of express statutory construction, no Member of Congress, officer, or senior employee of the Federal Government may, during their period of public service—

- (1) create;
- (2) issue;
- (3) sponsor;
- (4) promote; or
- (5) materially assist in the issuance

of any digital commodity, digital asset, or distributed ledger-based financial instrument, directly or indirectly.

This prohibition applies regardless of the label, form, or claimed decentralization of such instrument and applies to both direct issuance and indirect issuance through intermediaries, foundations, trusts, special purpose entities, or foreign structures.

Nothing in this subsection shall be construed to prohibit passive ownership of lawfully acquired assets held prior to entering public service, where such ownership fully complies with applicable ethics and disclosure requirements.

(c) Executive Branch Coverage Clarification.

For purposes of compliance with section 208 of title 18, United States Code, any individual described in section 202 of title 18, United States Code shall be deemed an executive branch employee, regardless of formal job title or classification.

(d) Anti-Evasion Construction.

Any attempt to evade the prohibitions of this section by the use of nominees, intermediaries, shell entities, trusts, foundations, blind trusts, or third-party stand-ins shall be treated as a direct violation of this section and subject to applicable civil and criminal penalties, consistent with constitutional due process protections.

SEC. 112. IMPLEMENTATION.

(a) Global Rulemaking Deadline

Except where a different deadline is expressly provided, and unless compliance is rendered impracticable by extraordinary operational, technical, or interagency coordination constraints,

the Commodity Futures Trading Commission and the Securities and Exchange Commission shall, individually and jointly as required, promulgate all rules, regulations, and orders required under this Act not later than 360 days after the date of enactment.

Failure to promulgate such rules within this period shall not be construed to expand, imply, create, or authorize regulatory jurisdiction beyond that expressly provided by Congress.

(b)(2) Hardened Clause

Any action taken in advance of such effective dates shall be deemed preparatory only and shall not confer, expand, diminish, or alter legal rights, obligations, or enforcement authority until the statutorily prescribed effective date has occurred, nor shall such preparatory actions be construed as final agency action for purposes of judicial review.

TITLE II—OFFERS AND SALES OF DIGITAL COMMODITIES

SEC. 201. TREATMENT OF INVESTMENT CONTRACT ASSETS

(a) Securities Act of 1933.

Section 2(a) of the Securities Act of 1933 (15 U.S.C. § 77b(a)) is amended as follows:

(1) Clarification of “Investment Contract”.

By adding at the end of paragraph (1) the following:

“For purposes of this Act, the term ‘investment contract’ refers exclusively to a scheme, transaction, or contractual arrangement, and shall not be construed to attach to, or be imputed to, any digital representation, cryptographic object, distributed ledger entry, or software-based artifact, unless such object independently constitutes a security based on its intrinsic legal rights, obligations, or enforceable economic attributes.”

(2) New Paragraph — Transaction-Linked Digital Object.

By adding at the end the following:

“(36) TRANSACTION-LINKED DIGITAL OBJECT.—

The term ‘transaction-linked digital object’ means a digitally recorded unit, token, or ledger-based entry that—

(A) is capable of exclusive control and direct peer-to-peer transfer without reliance on an identifiable managerial or discretionary actor;

(B) is recorded or memorialized on a system using Distributed Ledger Technology, as defined in section 2(a)(20) of this Act, or a functionally equivalent technological system; and

(C) may be utilized, distributed, transferred, or sold in connection with a scheme or transaction that independently qualifies as an ‘investment contract’, without converting such object itself into a security.

The legal character of such object shall be determined solely by its own legally enforceable attributes, and not by the nature of any scheme, marketing, or transaction in which it may be used.”

(b) Investment Advisers Act of 1940.

Section 202(a)(18) of the Investment Advisers Act of 1940 (15 U.S.C. § 80b-2(a)(18)) is amended by adding:

“The term ‘investment contract’ shall not be construed to attach to a transaction-linked digital object solely because such object is sold, transferred, or utilized pursuant to a scheme that independently constitutes an investment contract.”

(c) Investment Company Act of 1940.

Section 2(a)(36) of the Investment Company Act of 1940 (15 U.S.C. § 80a-2(a)(36)) is amended by adding:

“The term ‘investment contract’ shall not be construed to include a transaction-linked digital object solely by reason of its distribution or use in a scheme that independently qualifies as an investment contract.”

(d) Securities Exchange Act of 1934.

Section 3(a)(10) of the Securities Exchange Act of 1934 (15 U.S.C. § 78c(a)(10)) is amended by adding:

“The term ‘investment contract’ shall not be construed to include a transaction-linked digital object solely based on its mode of distribution, and shall be determined only by reference to the structure and economic reality of the underlying scheme or transaction.”

(e) Securities Investor Protection Act of 1970.

Section 16(14) of the Securities Investor Protection Act of 1970 (15 U.S.C. § 78lll(14)) is amended by adding:

“The term ‘investment contract’ shall not be construed to include a transaction-linked digital object solely because it is used in or associated with a scheme that independently qualifies as an investment contract.”

(f) Preservation of Enforcement Authority.

Add the following:

“Nothing in this section shall be construed to alter or overturn judicial precedent interpreting the term ‘investment contract’ under the federal securities laws, including *SEC v. W.J. Howey Co.*, *United Hous. Found., Inc. v. Forman*, and *Reves v. Ernst & Young*; this section clarifies only that an investment contract does not, by itself, convert any associated digital object into a security.”

SEC. 202. EXEMPTED PRIMARY TRANSACTIONS IN DIGITAL COMMODITIES

(a) Securities Act of 1933 Amendment

Section 4(a) of the Securities Act of 1933 (15 U.S.C. § 77d(a)) is amended by adding at the end the following:

“(8) Distributed Digital Transaction Safe Harbor.—

The offer or sale of a digitally recorded unit in connection with a scheme or transaction that independently constitutes an investment contract shall be exempt from registration under section 5, provided that:

(A) Objective Structural Condition

At the time of each transaction, the distributed ledger system and associated digital unit shall already satisfy one of the following:

(i) certification as a Mature Distributed Ledger System pursuant to section 42 of the Securities Exchange Act of 1934; or

(ii) objective architectural criteria demonstrating the absence of discretionary managerial control, protocol mutability, or centralized governance authority, as verified through independent, non-affiliated technical attestation.

No exemption shall be available based solely on a promise of future decentralization or future structural maturity.

(B) Capital Formation Limitation

Total aggregate consideration received in reliance on this paragraph during any rolling 12-month period shall not exceed \$50,000,000, indexed annually to CPI-U.

(C) Anti-Concentration Safeguard

No purchaser may, post-transaction, control more than 10 percent of outstanding digitally recorded units.

(D) Disqualified Issuers

This exemption shall not be available to issuers that:

- (i) are not organized under U.S. law;
- (ii) are blank-check or development-stage companies;
- (iii) are investment companies or exempt reporting advisers;
- (iv) issue passive income mineral or royalty interests;
- (v) have been subject to Commission suspension orders in the prior five years; or
- (vi) are disqualified persons under Rule 262 of Regulation A.

(E) Mandatory Ongoing Neutrality Disclosures

Issuers shall maintain and publicly disclose system-neutrality attestations, including absence of discretionary governance, immutability architecture, and protocol control limitations, in a form prescribed by the Commission.

SEC. 4B. REQUIREMENTS WITH RESPECT TO CERTAIN DIGITAL COMMODITY TRANSACTIONS.

(a) Commission Jurisdiction.

1. The Securities and Exchange Commission shall possess exclusive administrative authority over disclosure obligations required under this section when such disclosures arise in connection with a transaction that independently constitutes a securities law matter.
2. The Commodity Futures Trading Commission shall retain full jurisdiction with respect to market integrity, anti-manipulation, and anti-fraud enforcement where the underlying digital object functions as a commodity under the Commodity Exchange Act.
3. Section 17 liabilities shall apply to statements and filings under this section to the extent applicable under existing law.

(b) Requirements for Transactional Sponsoring Entities

(1) Required Filings.

A sponsoring entity that conducts a transaction relying on section 4(a)(8) shall file with the Commission:

- financial condition disclosures
- operational descriptions
- transaction structure descriptions
- use of proceeds
- independent technical architecture reports demonstrating present absence of discretionary managerial control where claimed

No filing may rely upon promises of future decentralization.

(2) Required Disclosures.

- (a) Structural Status — objective present-state disclosures
- (b) Source Code — publicly inspectable repositories
- (c) Transaction Verifiability — third-party testability steps
- (d) Functional Architecture — issuance, supply and control mechanics
- (e) System Stage — current operational realities only

- (f) Beneficial Ownership — confidential enforcement filings
- (g) Risk Factors — technical, legal, structural

(3) ONGOING DISCLOSURE REQUIREMENTS FOR NON-CERTIFIED SYSTEMS.

Subject to paragraph (5), any digital commodity issuer whose associated Mature Distributed Ledger System has not been certified as a Mature Distributed Ledger System under section 42 of the Securities Exchange Act of 1934, and that has filed a statement under paragraph (1) in reliance on section 4(a)(8), shall file continuing disclosures with the Commission as follows:

(A) SEMIANNUAL REPORTS.

Not later than 90 days after the end of each six-month reporting period, the issuer shall file a report containing:

- (i) an objective, present-state structural description of the current operational condition of the Mature Distributed Ledger System, including identification of any existing points of discretionary managerial authority, governance discretion, unilateral control, or protocol mutability;
- (ii) a disclosure of any actual actions taken during the reporting period by the issuer or any digital commodity related person that exercised, modified, influenced, or affected the technical operation, governance logic, or functional behavior of the Mature Distributed Ledger System or related digital commodity;
- (iii) a complete accounting of funds raised in reliance on section 4(a)(8), including categorized descriptions of expenditures and remaining balances; and
- (iv) financial statements, audited where reasonably available and appropriate, based upon the issuer's operational profile.

(B) CURRENT REPORTS.

The issuer shall file a current report upon the occurrence of any material change to previously disclosed information.

Such report shall be filed promptly in a form and manner prescribed by the Commission for the protection of market integrity and the public interest.

(4) RULEMAKING.

Not later than 360 days after enactment of this section, the Commission shall prescribe rules governing the form, substance, and standardized reporting requirements applicable to issuers relying on section 4(a)(8), consistent with constitutional separation of powers and statutory jurisdictional limits.

In carrying out paragraph (1), the Commission shall, by rule, define 'independent, non-affiliated technical attestation' solely by reference to objective indicia of independence, including absence

of equity interest, control rights, revenue participation, or governance authority in the issuer or any Digital Commodity Affiliated Person.

(5) MODIFICATION OR TERMINATION OF REPORTING OBLIGATIONS.

(A) IN GENERAL.

Ongoing reporting obligations under paragraph (3) shall continue unless and until modified, suspended, or terminated by rule or order of the Commission, based upon objective findings that continued reporting is no longer necessary for the protection of market integrity or the public interest.

Automatic termination by operation of time alone is prohibited.

(B) COVERED FISCAL YEAR DEFINED.

The term “covered fiscal year” means the first full fiscal year in which the Mature Distributed Ledger System related to the digital commodity has been certified as a Mature Distributed Ledger System under section 42 of the Securities Exchange Act of 1934.

(C) POST-CERTIFICATION DISCLOSURES.

Following certification as a Mature Distributed Ledger System, any issuer that continues to engage in material activity relating to the Mature Distributed Ledger System shall make public disclosures, at a frequency prescribed by the Commission, regarding:

- (i) material participation in any governance, coordination, or upgrade mechanisms that could affect system functionality;
- (ii) participation in material protocol changes, functional upgrades, or rule modifications;
- (iii) use of funds raised pursuant to section 4(a)(8) or section 202(c) of this Act;
- (iv) material ownership, control, or economic influence over units of the digital commodity; and
- (v) material affiliations that could create an ability to influence system behavior.

(D) TERMINATION OR EXEMPTION AUTHORITY.

Not later than 270 days after enactment, the Commission shall issue rules permitting:

- (i) termination of reporting obligations where no material activity exists; and
- (ii) exemptions where reporting would be disproportionate to actual operational or market risk.

(E) RULE OF CONSTRUCTION.

Nothing in this subsection shall be construed to reclassify any digital commodity as a security.

(F) REQUIREMENTS FOR INTERMEDIARIES.

Any person acting as an intermediary in connection with a transaction under section 4(a)(8) shall be required to register with the Commission as a broker or dealer only where such person's activities independently satisfy the statutory definition of broker or dealer under existing law, and not solely by reason of facilitating transactions involving a digital commodity.

(G) DISQUALIFICATION PROVISIONS.

The Commission shall apply the disqualification provisions contained in section 230.262 of title 17, Code of Federal Regulations (or any successor provision), to any transaction conducted in reliance on section 4(a)(8).

Nothing in this subsection shall be construed to limit the Commission's authority to deny or revoke the availability of an exemption where required in the public interest or for the protection of investors.

(H) FAILURE TO ACHIEVE STRUCTURAL MATURITY.

(1) IN GENERAL.

Not later than 270 days after the date of enactment of this Act, the Commission *shall promulgate rules* establishing enhanced regulatory and disclosure obligations applicable to any Mature Distributed Ledger System that fails to achieve Mature Distributed Ledger System certification within the time period specified in section 4(a)(8)(A).

(A) REQUIRED DISCLOSURES.

Such rules shall require, at minimum, detailed disclosures regarding:

(i) Failure to Achieve Structural Maturity —

A comprehensive and fact-based explanation of the technical, architectural, operational, or governance conditions that prevented certification.

(ii) Revised Development Pathways —

A publicly articulated forward-looking technical and operational roadmap.

(iii) Heightened Risk Disclosures —

Specific, tailored risk disclosures addressing remaining vectors of managerial authority, governance dependence, architectural mutability, or economic centralization.

(B) ENHANCED OBLIGATIONS.

The Commission shall have the authority to require expanded transaction reporting, beneficial ownership disclosures, governance transparency, and control-vector mapping as conditions to continued reliance on any exemption.

(2) QUALIFICATION REQUIREMENT FOR CONTINUED EXEMPT RELIANCE.

The Commission shall have authority to require affirmative qualification of any subsequent exempt offering by any issuer that has failed to achieve certification within the statutory timeframe.

The Commission may condition qualification upon a determination that the issuer has demonstrated:

- substantial structural progress toward decentralization;
- reduction of managerial authority;
- mitigation of governance dependency; and
- elimination of centralized economic control vectors.

Nothing herein shall be construed to require the Commission to grant such qualification.

(I) ADDITIONAL EXEMPTIONS.

(1) CERTAIN REGISTRATION REQUIREMENTS.

Section 12(g)(6) of the Securities Exchange Act of 1934 (15 U.S.C. § 78l(g)(6)) is amended by striking “under section 4(6)” and inserting “under section 4(a)(6) or section 4(a)(8)”.

(2) PREEMPTION OF INCONSISTENT STATE LAW.

Section 18(b)(4) of the Securities Act of 1933 (15 U.S.C. § 77r(b)(4)) is amended by—

(A) striking “section 4(4)” and inserting “section 4(a)(4)”;

(B) striking “section 4(6)” and inserting “section 4(a)(6)”;

(C) amending subparagraph (F) by replacing “section 4(2)” with “section 4(a)(2)”;

(D) amending subparagraph (G) by striking the period and inserting “; or”; and

(E) inserting the following:

“(H) transactions conducted in reliance on section 4(a)(8).”

(J) PRESERVATION OF OTHER EXEMPTIONS.

(1) RULE OF CONSTRUCTION.

Nothing in this section shall be construed to limit the availability of other exemptions under the Securities Act, provided that no such exemption shall be used to circumvent:

- required decentralization pathways;
- disclosure obligations; or
- statutory separation of commodities from securities.

(2) RULEMAKING AUTHORITY.

The Commission may promulgate rules permitting continued use of exempt offerings by issuers that:

- (i) have failed to achieve maturity within statutory timeframes; or
- (ii) are not organized under U.S. law;

only where the Commission affirmatively determines that:

- investor protection is preserved;
- disclosures are sufficient; and
- material control vectors are not being concealed.

(K) LEGACY ISSUER DISCLOSURES.

Not later than 270 days after enactment, the Commission shall establish disclosure obligations applicable to:

- (i) issuers previously relying on exemptions prior to enactment;
- (ii) issuers relying on exemptions after enactment; and
- (iii) successor filers designated by the Commission where an original issuer fails to comply.

If, four years after initial disclosure, certification has not occurred, the Commission may deny further exempt reliance unless it affirmatively qualifies a subsequent offering.

SEC. 203. TREATMENT OF SECONDARY TRANSACTIONS IN DIGITAL COMMODITIES THAT ORIGINALLY INVOLVED INVESTMENT CONTRACTS.

(a) Secondary market treatment.

Notwithstanding any other provision of law, a secondary transaction involving a digital asset that was originally distributed pursuant to an investment contract shall not, by itself, be deemed an offer or sale of such investment contract, provided that:

- (1) the seller is not the issuer of the asset or a person acting on behalf of such issuer; and
- (2) the transaction does not include contractual representations, ongoing profit expectations, continuing managerial undertakings, or issuer-dependent enterprise obligations.

For purposes of this subsection, such transaction shall be evaluated as a separate transaction according to the applicable federal regulatory framework governing the nature of the asset being transferred.

Nothing in this subsection shall be construed to limit the authority of the Securities and Exchange Commission or the Commodity Futures Trading Commission with respect to fraud, manipulation, or similar unlawful conduct.

This subsection supersedes any contrary interpretive rule that would treat the historical method of distribution, standing alone, as determinative of the legal status of a secondary transaction. Nothing in this section shall be construed to narrow or alter the definition of ‘security’ under section 2(a)(1) of the Securities Act of 1933; it clarifies only that the historical method of initial distribution, standing alone, is not determinative of the legal status of a secondary transaction.

(b) End-user functional distributions.

A transfer or distribution of a digital asset to an end user, where such transfer is conducted primarily for consumptive use, protocol participation, or functional network utility, shall not, by itself, constitute an offer or sale of a security solely by reason of such functional characteristics.

The legal characterization of any such transaction shall be determined by reference to the totality of the economic realities of the transaction, including whether contractual rights, managerial commitments, or issuer-dependent profit expectations are present.

Nothing in this subsection shall be construed to limit:

- the antifraud authority of the Securities and Exchange Commission; or
- the anti-manipulation authority of the Commodity Futures Trading Commission.

(c) Agent defined.

For purposes of this section, with respect to a digital commodity issuer, the term “agent” means any person that is directly or indirectly controlled by, under common control with, or otherwise authorized to act on behalf of the issuer in connection with distribution, governance, or operational influence.

SEC. 4C. REQUIREMENTS FOR CERTAIN REALES OF DIGITAL COMMODITIES ACQUIRED THROUGH INVESTMENT CONTRACTS.

(a) In General.

It shall be unlawful for any digital commodity affiliated person or digital commodity related person to engage in the offer or sale of a digital commodity that was acquired directly from the issuer of such digital commodity, or from any underwriter or agent thereof, pursuant to a

transaction that constituted an investment contract under Federal securities laws, unless such offer or sale complies with the requirements of this section.

(b) Jurisdictional Allocation.

(1) Securities Law Jurisdiction.

The Securities and Exchange Commission shall have jurisdiction solely over:

- (A) the offer or sale of any investment contract;
- (B) any fraud, misrepresentation, manipulation, or deceptive conduct occurring in connection with such investment contract; and
- (C) the conduct of any person acting in a capacity functionally equivalent to an underwriter in connection with such investment contract.

(2) Commodity Law Preservation.

Nothing in this section shall be construed to:

- (A) confer upon the Securities and Exchange Commission jurisdiction over commodities;
- (B) displace or diminish the jurisdiction of the Commodity Futures Trading Commission;
- (C) reclassify any digital commodity as a security; or
- (D) alter the application of the Commodity Exchange Act.

(c) Treatment of Certain Resellers.

(1) Prior to Certification of a Mature Distributed Ledger System.

Prior to certification of the related Distributed Ledger System as a Mature Distributed Ledger System, a digital commodity affiliated person or digital commodity related person may offer or sell units of a digital commodity acquired from the issuer only if:

(A) Compliance Filings.

All reports required under applicable Federal securities laws governing the investment contract through which such digital commodity was acquired have been timely filed.

(B) Holding Period.

Such person has continuously held the digital commodity for not less than 12 months.

(C) Volume Limitations.

- (i) During any rolling 12-month period, the amount sold shall not exceed 20 percent of the units originally acquired.
- (ii) The aggregate amount sold shall not exceed 50 percent of the total units acquired.

(2) After Certification as a Mature Distributed Ledger System.

After the Distributed Ledger System to which a digital commodity relates is certified as a Mature Distributed Ledger System, any unit of such digital commodity previously acquired by a digital

commodity related person or digital commodity affiliated person through an investment contract may be offered or sold subject to the following:

(A) Digital Commodity Related Persons.

A digital commodity related person may offer or sell such units, subject solely to:

- (i) the antifraud and anti-manipulation provisions of the Federal securities laws with respect to the investment contract through which such units were acquired; and
- (ii) the antifraud and anti-manipulation provisions of the Commodity Exchange Act with respect to the commodity itself.

Nothing in this section shall be construed to impose ongoing securities registration status upon the digital commodity.

(B) Digital Commodity Affiliated Persons.

A digital commodity affiliated person may offer or sell such units only if:

(i) Public Disclosure.

Any information required under section 4B(b)(5)(C), if applicable, has been made publicly available in a manner reasonably designed to inform market participants.

(ii) Holding Period.

Such person has held the units for a continuous period of not less than:

- (I) 12 months from acquisition; or
 - (II) 3 months after certification of maturity,
- whichever occurs first.

(iii) Volume Limitations.

- (I) During any rolling 12-month period, not more than 10 percent of the units acquired by such person may be sold; and
- (II) The total amount sold shall not exceed 50 percent of the units originally acquired.

(C) Preservation of Commodity Status.

Nothing in this paragraph shall be construed to:

- (i) transform a digital commodity into a security;
- (ii) confer continuing SEC jurisdiction over commodity spot transactions; or
- (iii) limit the authority of the Commodity Futures Trading Commission over commodities.

(3) Rulemaking Authority.

Not later than 270 days after enactment, the Securities and Exchange Commission, in consultation with the Commodity Futures Trading Commission, shall promulgate rules solely for the purpose of:

- (A) establishing objective resale thresholds applicable to affiliated persons as described above;
- and

(B) authorizing limited exemptions consistent with the antifraud and anti-evasion protections of Federal law.

No rule issued under this paragraph may expand:

- (i) the definition of a security;
- (ii) the jurisdiction of the Securities and Exchange Commission; or
- (iii) the jurisdiction of the Commodity Futures Trading Commission.

(d) Rule of Construction — Functional Use.

The use of a digital commodity solely for the technical, operational, or programmatic functioning of the Mature Distributed Ledger System to which such digital commodity relates shall not be deemed an offer, sale, or distribution of such digital commodity for purposes of this section or the Federal securities laws.

Nothing in this subsection shall be construed to affect the authority of the Commodity Futures Trading Commission over commodities or commodity transactions.

(e) Manipulative and Deceptive Devices; Reporting.

(1) General Prohibition.

It shall be unlawful for any digital commodity issuer, digital commodity related person, or digital commodity affiliated person, directly or indirectly, by use of the mails or any means or instrumentality of interstate commerce, to employ any manipulative or deceptive device or contrivance, in connection with:

- (A) the offer or sale of an investment contract; or
 - (B) any fraudulent or manipulative conduct involving a digital commodity,
- in contravention of such rules as the Securities and Exchange Commission and the Commodity Futures Trading Commission, within their respective jurisdictions, may prescribe as necessary or appropriate in the public interest and for the protection of market participants.

(2) Affirmative Defense Framework.

Not later than 270 days after enactment, the Securities and Exchange Commission, in consultation with the Commodity Futures Trading Commission, shall promulgate rules establishing narrowly tailored affirmative defenses applicable solely to enforcement actions concerning investment contract transactions, and not to spot commodity transactions.

(3) Transaction and Ownership Reporting.

Not later than 270 days after enactment, the Securities and Exchange Commission shall promulgate rules establishing transaction reporting and beneficial ownership disclosure obligations applicable solely to:

- (A) digital commodity related persons; and
 - (B) digital commodity affiliated persons,
- in connection with transactions involving investment contracts.

Such rules shall not extend reporting authority over general spot commodity transactions.

(4) Differentiation Among Persons.

Rules issued under this subsection shall incorporate structural differentiation between digital commodity related persons and digital commodity affiliated persons based on objective indicia of control, affiliation, and access to non-public information.

(f) Certain Units Acquired Prior to Enactment.

A unit of a digital commodity acquired from the issuer prior to the date of enactment of this section, pursuant to any exemption under sections 3, 4(a), or 19 of this Act, may be offered or sold by a digital commodity related person or digital commodity affiliated person only if:

(1) the issuer is no longer engaged in material, ongoing managerial or entrepreneurial efforts relating to the Mature Distributed Ledger System, and such system has been certified as a Mature Distributed Ledger System; or

(2) disclosures substantially equivalent to those described in section 202(c)(2)(B) of the CLARITY Act of 2025 have been filed with the Securities and Exchange Commission.

Nothing in this subsection shall be construed to convert a digital commodity into a security.

(g) Limited Exemptive Authority.

The Securities and Exchange Commission, in consultation with the Commodity Futures Trading Commission, may by rule exempt—conditionally or unconditionally—any digital commodity related person or digital commodity affiliated person from the requirements of this section solely with respect to investment contract-related conduct, where the Commission determines that such exemption:

(A) does not weaken antifraud protections;

(B) does not expand regulatory jurisdiction beyond that granted by Congress; and

(C) preserves the statutory separation between securities regulation and commodities regulation.

SEC. 42. CERTIFICATION OF MATURE DISTRIBUTED LEDGER SYSTEMS.

(a) Certification Authority.

(1) Authorized Certifying Persons.

Only the Securities and Exchange Commission, acting in consultation with the Commodity Futures Trading Commission, may certify that a Distributed Ledger System meets the statutory standard of a Mature Distributed Ledger System.

No issuer, affiliate, related person, governance participant, exchange, or economically interested party may self-certify system maturity.

(2) System Neutrality Requirement.

For purposes of this section, a “Distributed Ledger System” means neutral transaction-processing infrastructure capable of supporting multiple classes of digital representations and shall not be presumed to be dedicated exclusively to commodities or securities.

(3) Petition for Certification.

Any person may submit a petition requesting maturity review, provided that such person:

- (A) discloses all direct and indirect economic interests in the system;
- (B) certifies under penalty of law the accuracy of the submission; and
- (C) does not possess unilateral control authority over the system.

(4) Final Commission Disposition.

(A) Effective Certification.

A Distributed Ledger System shall be deemed certified as mature only upon the affirmative issuance of a written certification order by the Commission. No certification shall become effective by silence, inaction, or expiration of review timelines.

(B) Denial of Certification.

Where statutory criteria are not met, the Commission shall issue a written denial setting forth specific findings of fact and law.

(C) Recertification Limitation.

Where certification is denied, no petition for certification relating to the same Distributed Ledger System may be submitted for 120 days, unless the Commission determines that material system-architecture changes justify reconsideration.

(D) Judicial Review.

- (i) A petitioner may seek review of a final Commission order in the United States Court of Appeals for the District of Columbia Circuit within 60 days.
- (ii) Review shall be governed by chapter 7 of title 5, United States Code, and limited to whether the Commission acted arbitrarily, capriciously, or contrary to law.

(b) Required Showings for Certification.

A petitioner must establish, by clear and convincing evidence, that:

- (1) the system is not controlled by any person or coordinated group;
- (2) no single party retains unilateral authority to alter system functionality;
- (3) operational integrity is maintained by open, rule-bound programmatic processes;
- (4) the system may operate independently of any particular asset class; and
- (5) no issuer or affiliated party retains discretionary managerial authority.

(c) Distinguishing Ledger Systems From Digital Assets.

Nothing in this section shall be construed to:

- (A) classify a Distributed Ledger System as a security or commodity; or

(B) treat tokens, digital commodities, or digital assets as synonymous with the underlying ledger infrastructure.

(d) Review and Certification Process.

(1) Review Period.

The Commission shall complete review within 90 days of receipt.

(2) Consultation.

The Commission shall consult with the Commodity Futures Trading Commission prior to any certification decision.

(3) Deemed Denial.

A system shall be deemed not certified unless an affirmative written certification is issued.

(e) Limited Stay and Comment Process.

The Commission may extend the review period one time for not more than 60 days upon written findings of:

- (1) material factual deficiencies; or
- (2) genuinely novel technical architecture.

Public comment may be solicited but shall not substitute for evidentiary proof.

(f) Preservation of Statutory Jurisdictions.

Nothing in this section shall be construed to expand or diminish:

- (1) SEC jurisdiction over securities; or
- (2) CFTC jurisdiction over commodities.

(g) Statutory Maturity Criteria.

(1) Congressional Findings.

Congress finds that clear, objective, and operational criteria are necessary to preserve market integrity, investor protection, and constitutional separation of powers.

The Commission may not create discretionary or open-ended maturity standards.

(2) Limited Rulemaking Authority.

The Commission may issue interpretive rules applying the statutory criteria but may not expand, narrow, replace, or override those criteria.

(3) Rule of Construction.

Nothing in this section permits substitution of statutory criteria through regulation.

(h) Statutory Safe Harbor — Commission-Only Determination.

(1) Exclusive Authority.

A Distributed Ledger System shall be deemed mature only upon affirmative Commission determination.

(2) Evidentiary Standard.

Certification requires clear and convincing evidence that:

- (A) no person or coordinated group exercises control;
- (B) no party retains unilateral authority to alter protocol operations;
- (C) system functionality is maintained by autonomous, rule-bound processes;
- (D) ledger infrastructure is functionally independent of asset classification.

(3) Separation of Infrastructure and Asset Status.

Maturity certification shall not be construed as:

- (A) classification of any associated asset; or
- (B) exemption from securities or commodities laws.

(i) Core Criteria for Any Distributed Ledger System.

(1) Economic Value Separation.

(A) Market Value Independence.

Digital commodity value must arise from external market forces, not ledger functionality.

(B) Completion of Functional Mechanisms.

System-level mechanisms must be substantially complete, requiring no discretionary managerial efforts for basic operation.

(2) Functional Ledger System.

Participants must be able to:

- (i) transmit and record data;
 - (ii) validate and timestamp transactions;
 - (iii) maintain distributed consensus;
 - (iv) operate nodes or validator functions;
- without discretionary managerial intervention.

(3) Open and Interoperable Architecture.

- (A) Open Source Availability. Core protocol code must be publicly accessible.
- (B) Non-Discriminatory Access. Access may not be restricted by unilateral authority except for insiders or sanctioned persons.

(4) Rule-Based Operation.

System operation must follow transparent, deterministic, pre-established encoded rules.

(5) Governance Neutrality.

- (A) No person or group may retain unilateral authority to alter protocol functionality.
- (B) No person or group may control $\geq 20\%$ of governance voting power affecting protocol rules.

(6) Operational Impartiality.

No person or group may possess privileged operational authority except for emergency remediation executed through decentralized consensus.

(7) Ownership Dispersion.

No issuer, related person, or affiliated person may beneficially own $\geq 20\%$ of outstanding units of any associated digital commodity.

(j) Optional Safe Harbor for Legacy Systems.

A Distributed Ledger System qualifies if:

- (A) it was operational prior to enactment;
- (B) it satisfied decentralization requirements under subsection (i)(2)–(6) prior to enactment; and
- (C) $\geq 50\%$ of associated units are beneficially owned by non-insiders and non-affiliated persons.

(k) Governance Architecture and Control Attribution.

(1) Functional Status of Governance Mechanisms.

Control exists where any person or group exercises material influence over system outcomes. A system's "decentralized" label does not control where economic reality differs.

(2) Limited Safe Harbor for Non-Discretionary Actions.

Ministerial, technical, or mechanical actions executed through nondiscretionary procedures shall not disqualify a Mature Distributed Ledger System, provided they:

- (A) involve no discretionary judgment;
- (B) do not alter economic rights;
- (C) do not modify governance or control structures;
- (D) are publicly verifiable.

(3) Attribution of Control.

Influence by issuers, promoters, foundations, sponsoring entities, validator groups, or governance participants shall be attributed for purposes of evaluating control.

(l) Rulemaking Deadline.

Not later than 270 days after enactment, the Commission shall promulgate rules necessary to implement, administer, and enforce this section.

SEC. 206. EFFECTIVE DATE.

(a) GENERAL EFFECTIVE DATE.—

Except as otherwise expressly provided in this title, this title and all amendments made by this title shall take effect on the date that is 360 days after the date of enactment of this Act.

(b) RULEMAKING-DEPENDENT PROVISIONS.—

With respect to any provision of this title that requires the promulgation of a rule, regulation, or order by the Securities and Exchange Commission or the Commodity Futures Trading Commission, such provision shall take effect on the later of—

(1) the date that is 360 days after the date of enactment of this Act; or

(2) the date that is 60 days after publication in the Federal Register of the final rule implementing such provision;

provided that no guidance, interpretive release, staff statement, policy memorandum, or other agency communication shall be deemed to have legal force or effect prior to such effective date.

(c) RULE OF CONSTRUCTION.—

Nothing in this section shall be construed to authorize the Securities and Exchange Commission, the Commodity Futures Trading Commission, or any other Federal or State authority to enforce, implement, apply, or give de facto legal effect to any requirement under this title prior to the effective date applicable to such requirement under this section.

TITLE III—REGISTRATION FOR INTERMEDIARIES AT THE SECURITIES AND EXCHANGE COMMISSION

SEC. 301. TREATMENT OF DIGITAL COMMODITIES AND PERMITTED PAYMENT STABLECOINS.

(a) Securities Act of 1933.—

Section 2(a)(1) of the Securities Act of 1933 (15 U.S.C. § 77b(a)(1)) is amended by adding at the end the following:

“For avoidance of doubt, the term ‘security’ shall be interpreted in a manner consistent with its historical scope and shall not be construed to include a digital commodity or a permitted payment stablecoin, as such terms are defined under Federal commodities and payments law.”

(b) Securities Exchange Act of 1934.—

Section 3(a)(10) of the Securities Exchange Act of 1934 (15 U.S.C. § 78c(a)(10)) is amended by adding at the end the following:

“The term ‘security’ shall not be interpreted to include a digital commodity or a permitted payment stablecoin, except where such asset independently satisfies the definition of a security under this Act.”

(c) Investment Advisers Act of 1940.—

Section 202(a) of the Investment Advisers Act of 1940 (15 U.S.C. § 80b–2(a)) is amended—

(1) by inserting after paragraph (18) the following:

“(19) DIGITAL COMMODITY CLARIFICATION.—

For purposes of this title, the term ‘security’ shall be construed consistent with section 2(a)(1) of the Securities Act of 1933 and shall not be expanded to include a digital commodity or permitted payment stablecoin solely by virtue of technological form.”

(2) Preservation of UCC Article 12 Treatment.—Nothing in this Title shall be construed to modify, supersede, or reinterpret the treatment of controllable electronic records under Article 12 of the Uniform Commercial Code.

(3) by redesignating paragraphs accordingly.

(d) Commodity and Payments Law Preservation.—

Nothing in this section shall be construed to alter, diminish, or modify—

(1) the jurisdiction of the Commodity Futures Trading Commission under the Commodity Exchange Act (7 U.S.C. § 1 et seq.);

(2) the statutory definition of “commodity” under section 1a(9) of the Commodity Exchange Act (7 U.S.C. § 1a(9)); or

(3) the statutory treatment of payment stablecoins under Federal banking and payments law.

(e) Investment Company Act of 1940.—

Section 2(a) of the Investment Company Act of 1940 (15 U.S.C. § 80a–2) is amended—

(1) in paragraph (36), by striking the final sentence and inserting the following:

“The term does not include a digital commodity or a permitted payment stablecoin.”

(2) by adding at the end the following:

“(55) DIGITAL COMMODITY-RELATED TERMS.—

The terms ‘digital commodity’ and ‘permitted payment stablecoin’ have the meanings given such terms in section 2(a) of the Securities Act of 1933 (15 U.S.C. § 77b(a)).”.

(f) Securities Investor Protection Act of 1970.—

Section 16 of the Securities Investor Protection Act of 1970 (15 U.S.C. § 78lll) is amended—

(1) in paragraph (14), by striking the final sentence and inserting the following:

“The term does not include a digital commodity or a permitted payment stablecoin, as such terms are defined in section 2(a) of the Securities Act of 1933 (15 U.S.C. § 77b(a)).”

(2) by adding at the end the following:

“(15) TREATMENT OF PERMITTED PAYMENT STABLECOINS.—

For purposes of this Act:

(A) A permitted payment stablecoin shall not be treated as ‘cash’, and shall not be construed as physical currency, legal tender, or demand deposits held at a financial institution.

(B) A permitted payment stablecoin shall not be treated as a ‘claim for cash’ solely by reason of its function as a digital payment or settlement instrument, unless such stablecoin expressly creates a contractual entitlement to redeem directly from an identified issuer or custodian.

(C) Nothing in this paragraph shall be construed to alter the treatment of funds held in custodial accounts, omnibus accounts, or segregated customer accounts where such funds constitute actual fiat currency or bank deposit liabilities.”

(g) UCC Article 12 Preservation.

“Nothing in this Title shall be construed to alter, modify, or supersede the treatment of controllable electronic records under Article 12 of the Uniform Commercial Code, or to imply that a digital commodity is a controllable electronic record for purposes of Article 12 absent an independent statutory basis.”

SEC. 302. ANTI-FRAUD AUTHORITY OVER PERMITTED PAYMENT STABLECOINS AND CERTAIN DIGITAL COMMODITY TRANSACTIONS.

(a) In General.—

Section 10 of the Securities Exchange Act of 1934 (15 U.S.C. § 78j) is amended—

(1) by moving subsection (c) to appear after subsection (b); and

(2) by inserting after subsection (c) the following:

“(d) It shall be unlawful for any broker, dealer, national securities exchange, or alternative trading system, or any person acting through or by means of such persons or facilities, to use or employ, in connection with the purchase, sale, custody, or clearing of any permitted payment stablecoin or any digital commodity, any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors.”

(3) by adding at the end the following:

“Rules promulgated under subsection (b) prohibiting fraud, manipulation, or insider trading, and judicial precedents decided thereunder, shall apply to conduct involving permitted payment stablecoins and digital commodities only where such conduct is effected by, through, or by means of a broker, dealer, alternative trading system, or national securities exchange, and only with respect to the conduct of such regulated persons.

Nothing in this subsection shall be construed to expand the Commission’s jurisdiction over commodities as an asset class, or to diminish the jurisdiction of the Commodity Futures Trading Commission under the Commodity Exchange Act.”

(b) Treatment of permitted payment stablecoins.—

(1) Authority of Intermediaries.—

Permitted payment stablecoins may be brokered, traded, or custodied by a broker or dealer or through an alternative trading system, solely where such activity is limited to the provision of execution, order handling, or custody services by such regulated intermediaries.

(2) Commission Jurisdiction.—

The Commission shall have jurisdiction over the conduct of brokers, dealers, and alternative trading systems with respect to transactions involving permitted payment stablecoins only where such transactions are effected by, through, or with the assistance of such regulated persons.

(3) Jurisdictional Limitation.—

Jurisdiction under this section shall apply solely to the conduct of regulated intermediaries and shall not be construed to:

- A. classify a permitted payment stablecoin as a security;
- B. authorize the listing of permitted payment stablecoins on a national securities exchange;
- C. expand Commission jurisdiction over commodities, payment instruments, or monetary transmission.

(4) Rule of Construction.—

Nothing in this section shall be construed to alter, limit, or displace the authority of the Department of the Treasury; the Board of Governors of the Federal Reserve System; or any State financial regulator with respect to payment systems, monetary transmission, or systemic risk oversight.

For avoidance of doubt, nothing in this section—including subsection (c)—shall be construed to create, imply, or expand Securities and Exchange Commission jurisdiction over digital commodities themselves. This section applies solely to the conduct of regulated intermediaries within the scope of this Act and shall not be interpreted to confer functional, derivative, or implied jurisdiction over commodity spot markets or commodity instruments.

SEC. 303. ELIGIBILITY OF ALTERNATIVE TRADING SYSTEMS.

(a) Digital Asset Neutrality Rule

A trading platform operating pursuant to an exemption from registration under section 6 of the Securities Exchange Act of 1934 shall not be deemed ineligible for such exemption solely because the assets traded on such platform include digital commodities or permitted payment stablecoins, provided that the platform otherwise satisfies applicable statutory and regulatory requirements.

(b) Clarification of Facility Status

An alternative trading system whose primary business involves facilitating transactions in digital commodities or permitted payment stablecoins shall not, solely by reason of such activity, be deemed a “facility” of a national securities exchange.

A digital commodity exchange shall not be deemed a securities exchange or facility solely because it shares technological infrastructure with platforms that facilitate securities transactions.

A digital commodity exchange shall not be deemed a facility of a national securities exchange

unless it is directly controlled, operated, or integrated by such exchange in a manner that satisfies the functional control standards otherwise applicable under this Act.

(c) Rule of Construction

Nothing in this section shall be construed to:

1. limit or impair the authority of the Securities and Exchange Commission to regulate alternative trading systems engaged in securities transactions;
2. prohibit a national securities exchange from owning or operating an alternative trading system; or
3. create a presumption regarding exchange facility status absent direct operational control.

SEC. 304. RULEMAKING FOR DUAL-REGISTERED ENTITIES.

(a) Conflict of Interest Policies

Each person or entity dual-registered as permitted under section 15(p) of the Securities Exchange Act of 1934 shall establish, maintain, and enforce written policies and procedures reasonably designed to identify, mitigate, and manage material conflicts of interest, including conflicts arising from transactions or arrangements with affiliated entities registered with the Securities and Exchange Commission, taking into consideration the nature and scope of the registrant's business.

(b) Coordinated Exemptive Authority

The Securities and Exchange Commission shall, by rule, permit a person or entity holding multiple registrations, including dual registration under section 15(p), to be exempted from duplicative, inconsistent, or unduly burdensome provisions of the Securities Exchange Act of 1934 and the rules promulgated thereunder, where such exemptions are consistent with the public interest and the protection of investors.

(c) Self-Regulatory Organization Alignment

The Securities and Exchange Commission shall require each registered national securities association to adopt rules reasonably designed to implement the requirements of this section solely with respect to its members who are registered as brokers or dealers and who are also dual-registered with the Commodity Futures Trading Commission pursuant to section 15(p).

(d) Inter-Agency Coordination

The Securities and Exchange Commission and the Commodity Futures Trading Commission shall enter into one or more memoranda of understanding to ensure:

1. coordinated, non-duplicative supervision and enforcement of dual-registered entities; and

2. appropriate information sharing to further compliance with the Securities Exchange Act of 1934 and the Commodity Exchange Act.

(e) Rule of Construction

Nothing in this section shall be construed to limit, impair, or diminish the authority of the Commodity Futures Trading Commission to enforce antifraud, anti-manipulation, or false reporting provisions with respect to contracts of sale of a commodity or persons effecting such contracts.

SEC. 305. MODERNIZATION OF RECORDKEEPING REQUIREMENTS

(a) Permissive use of distributed ledger records.—

For purposes of the books and records requirements applicable to brokers, dealers, transfer agents, and national securities exchanges under the Securities Exchange Act of 1934 (15 U.S.C. 78a et seq.), investment advisers under the Investment Advisers Act of 1940 (15 U.S.C. 80b–1 et seq.), and investment companies under the Investment Company Act of 1940 (15 U.S.C. 80a–1 et seq.), a person may maintain or utilize records generated, stored, or verified through a cryptographically secured distributed ledger system, provided that such records—

1. are tamper-resistant;
2. capable of independent verification;
3. time-stamped through a consensus-based mechanism; and
4. provide audit functionality equivalent to or exceeding standards required under existing Commission rules.

(b) Preservation of statutory standards.—

The use of distributed ledger records under this section shall not diminish, alter, or substitute any obligation to maintain accurate, complete, and accessible books and records under existing securities laws and regulations.

(c) Rulemaking.—

Not later than 180 days after the date of enactment of this Act, the Securities and Exchange Commission shall promulgate rules necessary to carry out this section, solely for the purpose of defining technical standards for record integrity, security, accessibility, and auditability, without expanding the Commission’s jurisdiction.

SEC. 306. EXEMPTIVE AUTHORITY.

Section 28 of the Securities Act of 1933 (15 U.S.C. § 77z–3) is amended by striking “by rule or regulation” and inserting “by rule, regulation, or order, provided that any such order shall be accompanied by written findings of necessity, published reasoning, and a determination of consistency with statutory criteria.”.

SEC. 307. ADDITIONAL REGISTRATIONS WITH THE COMMODITY FUTURES TRADING COMMISSION.

(a) No Prohibition on Dual Registration.—

Notwithstanding any other provision of law, a broker, dealer, national securities exchange, or alternative trading system registered with the Securities and Exchange Commission may seek and maintain registration with the Commodity Futures Trading Commission under the Commodity Exchange Act where such person or entity engages in activities subject to the jurisdiction of the Commodity Futures Trading Commission.

(b) Preservation of Regulatory Authority.—

Nothing in this section shall be construed to alter or diminish the independent statutory authority of the Securities and Exchange Commission or the Commodity Futures Trading Commission.

(c) Notice Coordination.—

The Securities and Exchange Commission and the Commodity Futures Trading Commission shall, by memorandum of understanding, establish procedures for the exchange of information regarding entities registered with both agencies.

SEC. 308. PRESERVATION OF FEDERAL JURISDICTION OVER DIGITAL COMMODITIES.

(a) Rule of Jurisdiction.—

A digital commodity shall not be subject to State securities registration, licensing, or qualification requirements solely by virtue of its digital form.

(b) No Reclassification.—

Nothing in this section shall be construed to reclassify a digital commodity as a security for purposes of State or Federal law.

(c) Preservation of State Authority.—

Nothing in this section shall be construed to limit the authority of any State agency to investigate or bring enforcement actions with respect to fraud, deceit, or unlawful conduct involving any instrument, whether or not such instrument is a security.

(d) Savings Clause.—

Nothing in this section shall be construed to alter the jurisdiction of the Commodity Futures Trading Commission under the Commodity Exchange Act.

SEC. 309. LIMITED TECHNOLOGICAL SAFE HARBOR — NO IMPLIED REGISTRATION

(a) LIMITED TECHNOLOGICAL SAFE HARBOR

Notwithstanding any other provision of this Act, a person shall not be deemed to be a broker, dealer, exchange, clearing agency, or other regulated intermediary solely by reason of engaging in one or more of the following activities, provided that such person does not exercise discretionary managerial authority over customer funds, protocol governance, trading decisions, or economic arrangements:

- (1) Compiling, relaying, validating, sequencing, or otherwise processing digital ledger transactions in a purely ministerial or technical capacity.
- (2) Providing computational services, operating distributed ledger nodes, validator infrastructure, oracle services, bandwidth provisioning, or similar technical services that are neutral, automated, and non-discretionary in nature.
- (3) Providing software interfaces or tools that allow users to read, view, or access data on a Mature Distributed Ledger System, without custody, discretionary control, or financial intermediation.
- (4) Publishing, developing, maintaining, or distributing open-source software that facilitates peer-to-peer communication or blockchain protocol interaction, where such activity does not involve:
 - (A) discretionary governance control;
 - (B) economic profit-sharing arrangements; or
 - (C) the direct handling of customer assets.
- (5) Providing software tools, including wallets or key-management utilities, that enable individuals to self-custody digital assets, provided that such tools do not involve custodial control by the provider.
- (6) Participation in validator selection, block proposal, or consensus processes shall not, standing alone, be deemed discretionary managerial authority where such participation is performed pursuant to rule-bound, protocol-defined, nondiscretionary mechanisms equally available to all participants.
- (7) Oracle services shall be deemed non-managerial where such services are rule-bound, programmatic, and not designed to influence pricing outcomes.

(b) EXPRESS LIMITATIONS ON SAFE HARBOR

This safe harbor shall not apply to any person who:

- (1) Exercises discretionary authority over protocol parameters, governance decisions, transaction sequencing economics, or system monetary policy;
- (2) Controls, directs, or materially influences liquidity, pricing, or settlement outcomes;
- (3) Custodies, controls, or has unilateral access to user funds or private keys;
- (4) Operates any marketplace, order book, liquidity pool, or matching system that determines trade execution through discretionary or managerial action.

(c) PRESERVATION OF AGENCY AUTHORITY

Nothing in this section shall be construed to:

- (1) limit or impair the Commission's authority to investigate or bring enforcement actions for fraud, manipulation, or deceit;
- (2) restrict the ability of the Commission to determine, on a facts-and-circumstances basis, whether any activity constitutes the operation of a securities exchange, broker, dealer, or investment contract;
- (3) impair the Commodity Futures Trading Commission's jurisdiction over commodities, futures, swaps, or spot market manipulation.

(d) RULEMAKING AUTHORITY

Not later than 270 days after enactment, the Commission may promulgate rules to:

- (1) clarify the scope of technical vs. managerial activities;
- (2) prevent the use of this section to evade registration requirements; and
- (3) preserve market integrity and investor protection.

SEC. 310. PRUDENTIAL TREATMENT OF DIGITAL ASSET CUSTODY ACTIVITIES BY BANKING INSTITUTIONS.

(a) General Rule of Balance Sheet Treatment

The appropriate Federal banking agency, the National Credit Union Administration (with respect to a credit union), and the Securities and Exchange Commission may permit a depository institution, national bank, Federal credit union, State credit union, trust company, broker, dealer, or any affiliate thereof, to treat assets held in a custodial or safekeeping capacity as off-balance-sheet items, provided that such assets:

1. Are not owned by the institution;
2. Do not represent a credit exposure of the institution; and
3. Are held pursuant to a fiduciary, agency, or custodial capacity that does not involve principal risk.

(b) Conditional Prudential Treatment for Digital Assets

Notwithstanding subsection (a), the appropriate Federal banking agency, the National Credit Union Administration, a State bank supervisor, a State credit union supervisor, and the Securities and Exchange Commission shall require risk-sensitive prudential treatment for custodial arrangements involving digital assets, including digital commodities and permitted payment stablecoins, where such assets:

1. Exhibit operational, technological, or settlement risks materially greater than traditional custodial assets;
2. Are issued privately without sovereign guarantee or statutory reserve status; or
3. Present potential liquidity, redemption, or volatility risks that could transmit stress to the financial system.

Such risk-sensitive treatment may include:

- Capital requirements,
- Liquidity buffers, or
- Enhanced supervisory standards,

solely to the extent necessary to mitigate operational and systemic risk.

(c) Differentiated Asset Treatment Framework

The appropriate Federal banking agency, in coordination with the Securities and Exchange Commission and the Commodity Futures Trading Commission, shall establish rules that:

1. Distinguish between:
 - Sovereign-backed digital instruments;
 - Permissioned, regulator-visible payment instruments;
 - Decentralized or privately issued digital assets; and

2. Apply differentiated prudential standards based on:

- Transparency of reserves;
- Redemption enforceability;
- Governance structure; and
- Systemic transmission risk.

(d) Preservation of Core Banking Safety Standards.

Nothing in this section shall be construed to:

(1) Waive, suspend, or limit the safety and soundness authority of—

- (A) the Federal banking agencies;
- (B) the Federal Reserve;
- (C) the FDIC;
- (D) the OCC;
- (E) the NCUA; or
- (F) any applicable State banking authority;

(2) Override or diminish capital, liquidity, or operational risk standards required under international or domestic prudential frameworks, including Basel standards; or

Require any depository institution to provide custodial services for any category of digital asset.

(3) Permit, authorize, or imply that the use of distributed ledger technology allows any banking institution to engage in digital asset principal trading or proprietary trading, unless expressly authorized by statute.

(4) No digital commodity, permitted payment stablecoin, or privately issued digital instrument shall be treated as a high-quality liquid asset (HQLA) or any equivalent, successor, analogous, or functionally similar prudential category — including but not limited to Level 1, Level 2A, or Level 2B liquid assets under Basel III or any successor framework — absent express statutory authorization enacted by Congress.

(e) Rulemaking

Not later than 360 days after enactment, the appropriate Federal banking agency, in consultation with the Securities and Exchange Commission, the Commodity Futures Trading Commission, the Department of the Treasury, and FinCEN, shall promulgate rules to implement this section.

SEC. 311. MANDATORY BROKER-DEALER DISCLOSURES REGARDING INSOLVENCY TREATMENT OF DIGITAL ASSET-RELATED HOLDINGS.

(a) Rulemaking Requirement

Not later than 270 days after the date of enactment of this Act, the Securities and Exchange Commission shall promulgate rules requiring each registered broker or dealer to provide written disclosures to any customer prior to receiving, acquiring, holding, or facilitating transactions in:

- a digital commodity,
- a permitted payment stablecoin, or
- an investment contract involving a unit of a digital commodity,

regarding the treatment of such assets in the event of the insolvency, resolution, or liquidation of the broker or dealer.

(b) Required Disclosure Content

Such disclosures shall include, at a minimum:

1. A clear description of how the asset would be treated, or is reasonably expected to be treated, under each of the following legal frameworks, as applicable:
 - (A) Title II of the Dodd–Frank Wall Street Reform and Consumer Protection Act (12 U.S.C. 5381 et seq.);
 - (B) The Securities Investor Protection Act of 1970 (15 U.S.C. 78aaa et seq.); and
 - (C) Chapter 7 or Chapter 11 of title 11, United States Code.
2. An explanation of:
 - the legal uncertainties, if any,
 - the absence of guaranteed treatment,
 - and the absence of statutory customer protections equivalent to those applicable to securities or cash.

(c) Comparative Treatment Disclosures

The disclosures shall include a clear and conspicuous comparison describing how the insolvency, resolution, or liquidation treatment of:

- digital commodities,

- permitted payment stablecoins, and
- digital commodity-related investment contracts

differs materially from the treatment of:

- securities, and
- cash

held for the account of a customer under the same legal frameworks.

(d) Rule of Construction

Nothing in this section shall be construed to create, expand, or imply customer protection, priority, or coverage under the Securities Investor Protection Act of 1970 or any analogous insolvency framework for any digital commodity, permitted payment stablecoin, or digital asset, unless expressly enacted by Congress:

1. Confer or imply any guarantee of customer asset protection;
2. Create any presumption of entitlement in an insolvency proceeding; or
3. Alter the application of Title II of Dodd–Frank, SIPA, or the Bankruptcy Code; or
4. Create, expand, or imply coverage under the Securities Investor Protection Act of 1970 for any digital commodity, permitted payment stablecoin, or digital asset unless expressly provided by Act of Congress.

SEC. 312. PERMITTED USE OF DISTRIBUTED LEDGER TECHNOLOGY IN AUTHORIZED FINANCIAL ACTIVITIES.

(a) Technology-Neutral Financial Activities.

Section 4(k)(4) of the Bank Holding Company Act of 1956 (12 U.S.C. 1843(k)(4)) is amended to clarify that the use of distributed ledger technology, Mature Distributed Ledger System, or functionally equivalent technologies by a financial holding company shall be treated as a permissible technological method of conducting otherwise authorized financial activities, and shall not be construed to expand the scope of activities permissible under this section.

Nothing in this subsection shall be interpreted to classify a digital commodity, token, or privately issued digital instrument as a financial activity solely by reason of the technology used.

(b) National Bank Authority — Technology Use Without Asset Reclassification.

(1) A national bank may use distributed ledger technology or blockchain-based systems as an operational or recordkeeping mechanism to perform activities that the national bank is otherwise authorized by law to conduct.

(2) The use of such technology shall not:

- alter the legal character of the underlying asset,
- permit the bank to engage in impermissible principal activity, or
- exempt the bank from any supervisory, capital, liquidity, or consumer protection obligation.

(3) A national bank shall not treat a privately issued digital commodity or token as cash, a deposit substitute, or a reserve asset unless expressly authorized by federal banking law.

(c) Insured State Banks and Subsidiaries.

For purposes of sections 24(a) and 24(d) of the Federal Deposit Insurance Act (12 U.S.C. 1831a(a), (d)), any activity authorized under subsection (b) shall be permissible for an insured State bank only to the extent that:

- (A) the activity is conducted in an agency, custody, or operational capacity; and
- (B) no digital commodity or privately issued digital asset is treated as a balance sheet asset, deposit equivalent, or reserve-quality instrument.

(d) Explicit Prudential Reservation.

Nothing in this section shall be construed to:

1. authorize proprietary trading in commodities or digital commodities by insured depository institutions;
2. permit the use of privately issued digital instruments as bank capital, liquidity buffers, or reserve equivalents; or
3. limit the authority of the Federal Reserve, FDIC, OCC, NCUA, FinCEN, or CFPB to impose supervisory, capital, liquidity, consumer protection, or financial integrity requirements.

SEC. 313. EFFECTIVE DATE; ADMINISTRATION.

Except as otherwise provided in this title, this title and the amendments made by this title shall take effect 270 days after the date of enactment of this Act.

To the extent that any provision of this title requires rulemaking, such provision shall take effect on the later of:

- (1) 270 days after the date of enactment of this Act; or
- (2) 60 days after the publication in the Federal Register of the final rule implementing such provision.

SEC. 314. EDUCATIONAL MATERIAL REQUIREMENTS.

(a) Securities-related activities.—

The Securities and Exchange Commission shall require any registered entity that facilitates the trading of securities, including investment contracts involving digital assets, to provide clear, accurate, and accessible educational materials to the public regarding the risks, rights, and regulatory protections applicable to such securities transactions.

(b) Commodities-related activities.—

The Commodity Futures Trading Commission shall require any registered entity that facilitates the trading of digital commodities or commodity-based digital instruments to provide clear, accurate, and accessible educational materials to the public regarding the risks, rights, and regulatory protections applicable to such commodities transactions.

(c) Required content.—

Educational materials required under this section shall, as applicable—

- (1) explain the basic functionality of blockchain and distributed ledger technologies;
- (2) describe risks specific to digital asset markets;
- (3) distinguish digital asset markets from traditional financial markets;
- (4) provide guidance on regulatory reporting and compliance obligations; and
- (5) include instructions on recognizing and reporting fraudulent or manipulative conduct.

(d) Coordination.—

The Commission and the Commodity Futures Trading Commission shall consult and coordinate, as appropriate, to promote consistency in public-facing educational standards.

TITLE IV—REGISTRATION FOR DIGITAL COMMODITY INTERMEDIARIES AT THE COMMODITY FUTURES TRADING COMMISSION

SEC. 401. COMMISSION JURISDICTION OVER DIGITAL COMMODITY TRANSACTIONS.

(a) Savings Clause.

Section 2(a)(1) of the Commodity Exchange Act (7 U.S.C. § 2(a)(1)) is amended by adding at the end the following:

“(J) SAVINGS CLAUSE FOR SEC AND CFTC JURISDICTION.—

Except as expressly provided in the CLARITY Act of 2025, nothing in such Act shall be construed to affect, apply to, alter, expand, or diminish—

(1) the jurisdiction, authority, or enforcement powers of the Securities and Exchange Commission with respect to any product, instrument, person, or transaction subject to the Federal securities laws; or

(2) the jurisdiction, authority, or enforcement powers of the Commodity Futures Trading Commission with respect to any commodity, derivative, swap, futures contract, or agreement subject to this Act.

For avoidance of doubt, this subparagraph creates no implied jurisdiction over digital commodities themselves, and applies solely to the conduct of intermediaries within the scope of this Act.”

(b) Limitation on Authority Over Permitted Payment Stablecoins.

Section 2(c)(1) of the Commodity Exchange Act (7 U.S.C. § 2(c)(1)) is amended by adding at the end the following:

“(H) EXCLUSION OF PERMITTED PAYMENT STABLECOINS.—

(i) A permitted payment stablecoin shall not be treated as a commodity, contract of sale of a commodity, or agreement subject to this chapter.

(ii) Nothing in this Act shall be construed to classify a permitted payment stablecoin as a commodity or to confer Commission jurisdiction over its issuance, backing, redemption, reserve management, or monetary stabilization practices.”

(c) Commission Jurisdiction Over Financing Agreements.

Section 2(c)(2)(D) of the Commodity Exchange Act (7 U.S.C. § 2(c)(2)(D)) is amended—

(1) by inserting after “paragraph (1)” the following:

“(other than an agreement, contract, or transaction in a permitted payment stablecoin)”;

(2) by adding at the end the following:

“(iv) AGREEMENTS FOR MARGIN FINANCING.—

A digital commodity broker may offer margin financing solely with respect to a digital commodity that is not issued, backed, pegged, stabilized, or redeemable by any centralized issuer, provided that physical or control-level delivery occurs in accordance with commercial spot-market practices.”

(d) Commission Authority Over Certain Digital Commodity and Stablecoin Spot Transactions.

Section 2(c)(2) of the Commodity Exchange Act (7 U.S.C. § 2(c)(2)) is amended by adding at the end the following:

(F) Spot Jurisdiction Over Decentralized Digital Commodities.

(1) Scope.

The Commission shall have jurisdiction over spot or cash transactions only for digital commodities—

(A) that are not reliant on issuer-backed redemption mechanisms, reserve representations, or discretionary monetary stabilization; and

(B) whose market value is determined solely by open-market supply and demand and not by managerial, promotional, custodial, or issuer-based promises.

(2) Exclusive Jurisdiction for Registered-Entity Activity.

Subject to sections 6d and 12(e), the Commission shall have exclusive jurisdiction over any account, agreement, contract, or transaction involving a contract of sale of a commodity, including any such contract evidenced, recorded, or facilitated through distributed-ledger or functionally equivalent technological systems or tradable assets (as defined in section 4x), when such transaction is—

(i) offered, solicited, traded, facilitated, executed, cleared, reported, or otherwise dealt in on or subject to the rules of a registered entity; or

(ii) engaged in by an entity registered or required to be registered with the Commission.

(3) Limitations.

(i) Bank Custody Carve-Out.

Clause (2) shall not apply to custodial, safekeeping, or fiduciary digital-commodity services performed by a Federal- or State-regulated banking entity, provided that the asset is not recorded as an asset or liability of the custodian.

(ii) Securities Carve-Out.

Clause (2) shall not apply to any transaction constituting the offer or sale of a security, investment contract, or other instrument subject to the Federal securities laws.

(iii) Mixed Digital-Asset Transactions.

(I) Clause (2) shall not apply to any transaction containing both a security and a digital-commodity component.

(II) In such transactions, the Securities and Exchange Commission shall retain jurisdiction over the securities component, and the Commodity Futures Trading Commission shall retain jurisdiction over the commodity component.

(G) Agreements, Contracts, and Transactions Involving Permitted Payment Stablecoins.

(i) Transactional Oversight Only.

The Commission shall have jurisdiction solely over the intermediated transactional conduct of registered entities with respect to permitted payment stablecoins.

(ii) Legal Character Preservation.

Nothing in this Act shall be construed to classify a permitted payment stablecoin as —

(A) a commodity,

(B) a security, or

(C) a federally regulated monetary instrument.

(iii) Issuance Firewall.

The Commission shall have no authority over the issuance, reserve management, design, monetary mechanics, or redemption processes of a permitted payment stablecoin.

(e) Conforming Amendments.

(1) Section 1a(9) of the Commodity Exchange Act (7 U.S.C. § 1a(9)) is amended by striking the second sentence.

(2) Section 2(a)(1)(A) of the Commodity Exchange Act (7 U.S.C. § 2(a)(1)(A)) is amended by inserting

“subparagraphs (F) and (G) of subsection (c)(2) of this section or”
before “section 19”.

SEC. 402. DIGITAL COMMODITY CUSTODY — NON-BANK FRAMEWORK

(a) Segregated Custody Requirement for Digital Commodities.—

Notwithstanding any other provision of law, any futures commission merchant, broker, dealer, or digital commodity intermediary that accepts, holds, controls, safeguards, or has custody of a digital commodity for or on behalf of another person shall maintain such digital commodity in a custodial arrangement that satisfies all of the following requirements:

1. Segregation.
The digital commodity shall be held in full segregation from the proprietary assets of the intermediary.
2. Balance Sheet Neutrality.
The digital commodity shall be treated exclusively as customer property and shall not be reflected as an asset or liability on the balance sheet of the intermediary.
3. Prohibition on Encumbrance.
The digital commodity shall be held solely for the benefit of the customer and may not be pledged, rehypothecated, lent, or otherwise encumbered.

(b) Prohibition on Bank-Based Prudential Custody Treatment.—

No digital commodity held in custody pursuant to subsection (a) shall be treated as:

- a deposit,
- a demand liability,
- a reserve asset,
- a capitalized exposure, or
- a high-quality liquid asset (HQLA) or any analogous prudential category

for purposes of:

- the Federal Reserve Act,
- the Federal Deposit Insurance Act,
- the National Bank Act,
- Basel III or any successor prudential framework, or
- any capital, liquidity, leverage, or risk-weighting requirement administered by the Federal Reserve System, the FDIC, the OCC, or any State banking authority.

For avoidance of doubt, no digital commodity, permitted payment stablecoin, or privately issued digital instrument shall be treated as an HQLA (including Level 1, Level 2A, Level 2B, or any equivalent category) absent express statutory authorization enacted by Congress.

(c) Creation of a Qualified Digital Commodity Custodian Class.—

Not later than 270 days after enactment, the Commodity Futures Trading Commission shall establish, by rule, a class of entities to be known as Qualified Digital Commodity Custodians, whose permissible activities shall be limited exclusively to:

1. Safekeeping of private cryptographic keys;
2. Execution of customer-authorized transfers;
3. Maintenance of segregation and reconciliation records;
4. Operational cybersecurity, system integrity, and continuity safeguards.

Such entities shall not be deemed banks, trust companies, insured depository institutions, or treated as such for purposes of Federal or State banking law.

(d) Explicit Exclusion of Certain Decentralized Assets From Bank Custody.—

No asset that:

- lacks a centrally accountable issuer,
- operates through anonymous or pseudonymous consensus mechanisms, or
- does not permit enforceable legal redress or contractual remedies against a controlling counterparty

shall be eligible for custody by:

- insured depository institutions,
- national banks, or
- Federal or State-chartered credit unions.

Such assets may be custodied only by Qualified Digital Commodity Custodians established under subsection (c).

(e) Limitation of Regulatory Spillover.—

Nothing in this section shall be construed to:

1. expand the jurisdiction of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, or any State banking authority over commodities or digital commodities;

2. classify a digital commodity as a bank-eligible custodial asset; or
3. confer prudential, supervisory, or monetary-policy authority over digital commodities upon any banking regulator.

SEC. 403. TRADING CERTIFICATION AND APPROVAL FOR DIGITAL COMMODITIES.

Section 5c of the Commodity Exchange Act (7 U.S.C. 7a–2) is amended to read as follows:

(a) Self-certification authority.

A registered entity, including any digital commodity exchange, may make any new rule or rule amendment pursuant to sections 5(d), 5b(c)(2), and 5i(c) of this Act, in accordance with the provisions of this section.

(b) Submissions by registered entities.

A registered entity making a rule or rule amendment shall transmit to the Commission—

- (1) a copy of such rule or rule amendment; and
- (2) a concise explanation of the purpose, operation, and legal basis of the proposed rule or rule amendment.

(c) Commission review.

- (1) The Commission may approve, disapprove, or stay the effectiveness of any rule or rule amendment submitted under this section.
- (2) The Commission shall approve such rule or rule amendment unless it determines that the submission is inconsistent with this Act or the regulations promulgated thereunder.
- (3) The Commission may request additional data, analysis, or explanation from the registered entity or from market participants as necessary to evaluate compliance with this Act.
- (4) In reviewing a submission, the Commission shall apply the definition of “digital commodity” under section 1a(9) of this Act for purposes of contracts, instruments, or agreements that reference, are based upon, or derive value from such digital commodity.

(d) Certifications for digital commodity-based instruments.

(1) In general.

Notwithstanding subsection (c), for purposes of listing or offering for trading any contract, instrument, option, swap, agreement, or transaction that references, tracks, or derives value from a digital commodity, an eligible entity shall submit to the Commission a written certification that —

- (A) the referenced digital commodity meets the requirements of this Act; and
- (B) the proposed instrument complies with the core principles and regulations applicable to the registered entity.

(2) Contents of certification.

A certification under paragraph (1) shall include—

- (A) an analysis demonstrating how the referenced digital commodity satisfies the requirements of section 5i(c)(3); and
- (B) a description of any material risks, governance features, or market structure factors relevant to the contract.

(3) Permissible sources of information.

An eligible entity may consider publicly available filings, records, or disclosures of any person registered with the Securities and Exchange Commission or any State or Federal agency, provided that the Commission shall retain independent authority to evaluate and determine compliance under this Act.

(4) Modifications.

- (A) An eligible entity shall promptly amend a certification if there is a material change in facts or representations previously submitted.
- (B) Any material amendment shall be subject to the same review standards as an initial certification under this section.

(5) Disapproval.

- (A) A written certification described in paragraph (1) shall become effective unless the Commission determines, based upon the administrative record, that the listing or offering of the digital commodity or any related instrument is inconsistent with this Act or the rules and regulations prescribed thereunder.
- (B) In the event of a disapproval, the Commission shall provide the eligible entity with a written explanation of the material factors forming the basis for such determination, consistent with the protection of confidential supervisory and law-enforcement information.
- (C) The Commission shall make public a notice of any final disapproval determination and a summary of the Commission's reasoning, in a manner that protects confidential commercial, supervisory, and security-sensitive information.

(6) Review.

- (A) Unless the Commission issues a final disapproval under paragraph (5), a written certification shall become effective upon public notice, on the later of—
 - (i) 20 business days after receipt by the Commission, in the case of a digital commodity not previously certified or for which a materially modified certification is submitted; or
 - (ii) 1 business day after receipt by the Commission, in the case of a digital commodity previously certified and not materially modified.
- (B) The Commission may extend the review period—
 - (i) once for a period not exceeding 30 business days by written notice to the eligible entity; and
 - (ii) once for an additional period not exceeding 30 business days upon written notice describing

the general categories of deficiencies, including—

- (I) novel or complex regulatory issues;
- (II) material omissions or inadequate explanations; or
- (III) potential inconsistencies with this Act or Commission regulations.

(7) Prior approval before registration.

(A) A person applying for registration for purposes of listing or offering a digital commodity may request prior approval to list or offer such digital commodity upon registration.

(B) The request shall include a written certification that the digital commodity meets the requirements of this Act and the information required under paragraph (2).

(C) The Commission shall take final action not later than 90 business days after receipt of the request, unless extended by written agreement of the applicant.

(D) The Commission shall approve the listing unless it determines, based upon the administrative record, that the listing would be inconsistent with this Act, and shall publish a notice of disapproval accompanied by a reasoned explanation consistent with the protection of confidential supervisory and commercial information.

(8) Eligible entity defined.

The term “eligible entity” means a registered entity, or two or more registered entities acting jointly, as determined by the Commission.

SEC. 404. REGISTRATION OF DIGITAL COMMODITY EXCHANGES

(a) Registration.

(1) Requirement.

(A) In general.

A trading facility that offers or seeks to offer a cash or spot market in at least one digital commodity, and that does not offer or effect transactions in securities or security-based instruments subject to the federal securities laws, shall register with the Commodity Futures Trading Commission as a digital commodity exchange.

(B) Application.

A person seeking to register shall submit an application in such form and containing such information as the Commission may require to make the determinations required for approval.

(C) Exemptions.

A trading facility shall not be required to register under this section if the facility—

- (i) permits no more than a de minimis amount of trading activity in a digital commodity, as determined by Commission rule; or
- (ii) limits participation to customers located wholly within a single State, territory, or possession and does not involve interstate commerce, as determined by the Commission.

(2) Additional registrations.

(A) With the Commission.

To promote fair and orderly digital commodity markets, protect customers, and strengthen market integrity, the Commission shall—

- (i) prescribe rules to prevent duplicative, conflicting, or unduly burdensome obligations;
- (ii) address conflicts of interest and governance risks; and
- (iii) after assessing systemic risk, may permit portfolio margining.

(B) With a registered futures association.

- (i) Any registered digital commodity exchange that accepts customer funds subject to segregation shall become and remain a member of a registered futures association.
- (ii) The Commission shall require such association to adopt rules ensuring compliance with customer-protection standards.

(C) No substitution.

Registration under this section is required regardless of any other Federal or State registration and shall not be construed to authorize activities within the jurisdiction of the Securities and Exchange Commission.

(b) Trading and Market Conduct.

(1) Prohibited practices.

(A) Section 4b applicability.

Section 4b shall apply to any agreement, contract, or transaction in a digital commodity (excluding instruments subject to the securities laws) as if such transaction were a contract of sale of a commodity for future delivery.

(B) Section 4c applicability.

Section 4c shall apply to any digital commodity transaction (excluding securities, security-based swaps, or investment contracts) as if involving a commodity for future delivery.

(C) Section 4b–1.

Section 4b–1 shall apply in a similar manner.

(2) Prohibition on acting as counterparty.

(A) General rule.

A digital commodity exchange, or any affiliate, shall not trade for its own account on or subject to the rules of the exchange.

(B) Limited exceptions.

Permitted solely for—

- (i) customer-directed execution;
- (ii) bona fide operational, credit, or liquidity risk management; or

(iii) operational system-integrity functions;
provided such trading is not for market-making, price-stabilization, or proprietary speculation.

(C) Pre-approval.

The exchange shall obtain written Commission approval before engaging in any activity under subparagraph (B).

(D) Supervisory controls.

The Commission may impose conditions, limitations, reporting requirements, or revoke approvals where necessary.

(c) Core Principles for Digital Commodity Exchanges.

A digital commodity exchange shall comply with the following core principles:

(1) Compliance with core principles.

(A) General rule.

To obtain and maintain registration, an exchange shall comply with—

- (i) the core principles in this subsection; and
- (ii) any requirement imposed under section 8a(5).

(B) Conditioned discretion.

Reasonable discretion is permitted in the manner of compliance, provided that compliance is objective, auditable, and reasonably designed to achieve consistent regulatory outcomes.

(2) Compliance with rules.

The exchange shall—

- (A) establish and enforce clear, written rules governing trading terms and access;
- (B) maintain surveillance and enforcement systems to prevent, detect, and discipline violations; and
- (C) establish operational rules governing order entry, matching, execution, and reporting, excluding activities subject to the federal securities laws.

(3) Listing standards for digital commodities.

(A) General requirement.

Trading shall be permitted only where the exchange determines that material information required for transparency, price discovery, and risk understanding is publicly available, accurate, current, and accessible.

(B) Public information requirements.

(i) General obligation. Exchanges shall maintain written policies to verify and re-evaluate required disclosures.

(ii) Required categories. Must include:

- (I) system architecture overview;

(II) transaction transparency mechanisms;
(III) digital commodity economics, including issuance, validation, governance, and verification features;
(IV) market performance data;
(V) plain-language risk disclosures.
(iii) Format. Disclosures must be conspicuous, plain-language, and proportionate.
(iv) Permissible reliance. Exchanges may rely on public disclosures filed with other Federal regulators.

(C) Digital commodities held by affiliates.
Policies shall mitigate conflicts of interest and abuses arising from issuer-acquired or affiliate-held digital commodities.

(4) Treatment of customer assets.

The exchange shall safeguard customer funds, assets, and property consistent with Commission custody and segregation rules.

(5) Monitoring of trading.

(A) Provide an open and orderly trading environment.

(B) Prevent abusive practices and manipulation.

(C) Maintain real-time and post-trade surveillance.

(6) Ability to obtain information.

The exchange shall obtain and provide information required for regulatory functions and participate in lawful information-sharing arrangements.

(7) Emergency authority.

Exchanges shall maintain written emergency procedures for liquidation, temporary suspension of trading, or transfer of positions, documented consistent with due process and Commission rules.

(8) Timely publication of trading information.

Publish timely price, volume, and market data; maintain electronic data-capture capacity.

(9) Recordkeeping and reporting.

Maintain complete audit trails for at least five years; furnish information to the Commission; ensure confidentiality protections.

(10) Antitrust considerations.

No unreasonable restraints of trade or anticompetitive burdens.

(11) Conflicts of interest.

Policies to identify, disclose, mitigate, and manage conflicts.

(12) Financial resources.

Maintain adequate financial, operational, and managerial resources; subject to risk-based Commission standards.

(13) Disciplinary procedures.

Procedures shall be fair, transparent, and consistent with due process.

(14) Governance fitness standards.

(A) Governance must prevent conflicts and support integrity.

(B) Officers, directors, and persons with material authority must meet fitness standards.

(15) System safeguards.

(A) Risk management and operational oversight programs;

(B) business continuity and disaster recovery plans;

(C) periodic testing of continuity, surveillance, and record-keeping systems.

(d) Holding of Customer Assets.

(1) General rule.

Customer assets shall be safeguarded, separately accounted for, and promptly accessible.

(2) Segregation of customer property.

(A) Customer ownership at all times.

(B) Separate accounting.

(C) Omnibus accounts permitted if title remains with customers.

(3) Use limitations.

Customer property may not be used to margin or guarantee obligations of others except as necessary to effect customer-authorized transactions.

(4) Permitted investments.

Limited to U.S. obligations, State general obligations, or Commission-approved principal-preserving instruments.

(5) Treatment in insolvency.

- (A) Customer property treated consistent with CEA and chapter 7 of title 11.
- (B) Digital commodity transactions treated as “commodity contracts” solely for customer-protection purposes.

(6) Prohibition on misuse.

- (A) It is unlawful to knowingly misuse customer property.
- (B) “Misuse” means use materially inconsistent with customer instructions or authorized trading.

(7) Participation in blockchain services.

- (A) Customer digital commodities may be used solely for Mature Distributed Ledger System operations with prior, written, revocable authorization.
- (B) Commission shall set disclosure and voluntariness standards.
- (C) Commission may tailor requirements only as necessary.
- (D) Defines “blockchain service.”

(e) Market Access Requirements.

The Commission may impose operational standards necessary to protect participants, promote fair trading, and mitigate systemic risk.

(f) Chief Compliance Officer.

(1) Designation.

Each exchange shall designate a chief compliance officer.

(2) Duties.

Includes reporting to the board, overseeing compliance, identifying conflicts, administering policies, and monitoring corrective actions.

(3) Annual report.

Certified annual compliance report filed with the Commission under penalty of law.

(g) Appointment of Trustee.

(1) Application.

Upon suspension, revocation, or withdrawal of registration, the Commission may apply to district court for appointment of an independent trustee.

(2) Court authority.

Court may assume exclusive jurisdiction and appoint a trustee to administer affairs solely for customer protection.

(3) Commission role.

Commission may advise but not serve as trustee.

(h) Qualified Digital Asset Custodian.

Customer assets shall be held through—

(1) a custodian regulated by a Federal banking agency or State bank supervisor; or

(2) a qualified digital asset custodian meeting joint prudential standards of the Commission and banking regulators.

The Commission may not require custody structures inconsistent with applicable fiduciary or capital regulations.

(i) Exemptions.

(1) Prospective only.

May be granted prospectively by rule or order with published findings.

(2) No retroactive exemptions.

(3) Foreign exchanges.

Substituted compliance permitted only where the home jurisdiction provides comprehensive, consolidated supervision comparable to U.S. standards.

(j) Customer Defined.

“Customer” includes any person (other than the exchange or affiliates) that holds an account, maintains trading privileges, or has digital commodity assets held, credited, or controlled by or through the exchange, directly or indirectly.

(k) Federal Preemption.

The Commission shall have exclusive regulatory authority over registration, supervision, and operation of digital commodity exchanges for matters expressly governed by this Act. Nothing preempts State fraud, criminal, or consumer-protection authority, or regulation of conduct outside the scope of this Act.

SEC. 405. QUALIFIED DIGITAL ASSET CUSTODIANS

SEC. 5j. Qualified Digital Asset Custodians

Cross-Reference — Definitions.

For purposes of this Act, the terms “qualified digital asset custodian” and “qualified digital commodity custodian” shall have the meanings given in section 5j (as added by §405 of this Title).

(a) In general

A person shall be considered a qualified digital asset custodian for purposes of this Act only with respect to the custody of:

- (1) digital assets that are not commodities under the Commodity Exchange Act; or
- (2) digital assets that constitute securities or other non-commodity instruments,

and only if the person complies with subsections (b) and (c).

A person shall be considered a qualified digital commodity custodian only with respect to the custody of digital assets that qualify as commodities under Federal law.

(b) Supervision requirement (Dual-Track Jurisdictional Structure)

A person is in compliance with this subsection only if:

- (1) with respect to digital commodities, the person is supervised by the Commodity Futures Trading Commission or an appropriate Federal banking agency; and
- (2) with respect to non-commodity digital assets, the person is supervised by the Securities and Exchange Commission or an appropriate Federal banking agency.

(c) Structural separation (Split Custody Architecture)

- (1) The custodian shall maintain separate legal, operational, and accounting structures for:

- digital commodity custody; and
- non-commodity digital asset custody.

- (2) Commingling of these custody functions is prohibited.

(d) Adequate supervision and appropriate regulation

(1) For purposes of this section, “adequate supervision” and “appropriate regulation” mean minimum supervisory and regulatory standards necessary to protect customer assets, including requirements to:

- (A) undergo ownership and fitness review
- (B) maintain capital adequacy
- (C) segregate customer assets
- (D) maintain books and records
- (E) submit audited financials
- (F) disclose material legal or operational events
- (G) maintain compliance programs
- (H) establish business-continuity plans
- (I) resolve customer complaints

(J) Supervisory authority shall be exercised only within the statutory jurisdiction of the supervising agency and may not extend beyond lawful asset-class authority.

(e) Digital commodity classification safeguard

For purposes of this section, a digital asset may be treated as a digital commodity only if it satisfies the following criteria:

- (1) no person or group retains discretionary control over protocol changes;
- (2) no identifiable managerial actor directs governance; and
- (3) the economic value of the asset is not dependent on the efforts of others.

No presumption shall arise in favor of any specific asset.

Commodity status shall be determined solely by statutory criteria.

(f) Legacy transition

Existing custodians shall receive a transition period of not less than 24 months to comply with structural separation requirements.

(g) Temporary suspension authority (Jurisdiction-Bound)

(1) The Commodity Futures Trading Commission, by rule or order, may temporarily suspend a requirement of this section only with respect to assets within its statutory jurisdiction, and only if:

- (A) necessary to address an immediate operational, market stability, or technological risk; and
- (B) narrowly tailored and time-limited.

(2) The Commission may not suspend custody or segregation standards applicable to assets outside its jurisdiction.

(3) No suspension may be granted for convenience, competition, or regulatory arbitrage.

(4) Any suspension shall be:

- (A) in writing
- (B) fact-based
- (C) scope-limited
- (D) publicly noticed

(h) Functional separation of roles

(1) Exchange function.

A digital commodity exchange shall be responsible solely for:

- (A) facilitating matching, execution, and price discovery;
- (B) market surveillance and rule enforcement; and
- (C) compliance with registration and reporting requirements.

A digital commodity exchange shall not be deemed to be a custodian solely by virtue of facilitating access to a Mature Distributed Ledger System.

(2) Custodial function.

A qualified digital asset custodian shall be responsible solely for:

- (A) safekeeping of customer assets;
- (B) segregation of accounts; and
- (C) customer-directed asset movement.

A custodian shall not be deemed to operate an exchange, clearing system, or protocol by virtue of safekeeping activity.

(3) Protocol function.

A Mature Distributed Ledger System, distributed ledger, or protocol shall be deemed:

- (A) a neutral technical infrastructure;
- (B) not a financial institution; and
- (C) not a regulated intermediary.

Protocol developers shall not be deemed custodians, exchanges, brokers, dealers, or control persons solely by virtue of writing or maintaining open-source code.

(4) Prohibition on functional collapse

No person or entity may:

- (A) perform both exchange and custodial functions without explicit statutory authorization; or
- (B) combine operational control of a protocol with custody or exchange operations.

(5) Jurisdictional containment clause

No Federal agency may extend its supervisory authority by recharacterizing:

- (A) protocol operation as brokerage;
- (B) exchange functionality as custody; or
- (C) custody as deposit-taking.

SEC. 406. REGISTRATION AND REGULATION OF DIGITAL COMMODITY BROKERS AND DEALERS.

(a) Registration

(1) Requirement.

It shall be unlawful for any person to act as a digital commodity broker or digital commodity dealer, by holding, controlling, or exercising discretionary authority over customer digital commodities, unless registered with the Commission.

A person shall not be deemed a broker or dealer solely by virtue of:

- (A) providing non-custodial software;
- (B) publishing open-source protocol code;
- (C) operating user-controlled interfaces; or
- (D) validating or relaying blockchain transactions.

(2) Additional registration

(A) Rules.

To foster fair and orderly markets, protect customers, and promote responsible innovation, the Commission shall—

- (i) exempt dually registered entities from duplicative or inconsistent obligations, without expanding jurisdiction beyond statutory limits;
- (ii) address conflicts of interest without reclassification of technical services as financial intermediation; and
- (iii) permit portfolio margining only after risk-benefit analysis tied to actual custody or discretionary risk exposure.

(B) Registered futures association membership.

Any person required to register under this section shall become and remain a member of a registered futures association, except where the person does not hold or control customer assets.

(b) Registration requirements

(1) In general.

A person shall register as a digital commodity broker or dealer by filing an application with the Commission demonstrating:

- (A) custody or control authority over customer digital commodities; or
- (B) discretionary trading authority on behalf of customers.

(2) Application contents

(A) General.

Applications shall be in the form and manner prescribed by the Commission and shall contain information the Commission reasonably determines necessary solely in relation to custodial, discretionary, or counterparty risk activities of the applicant.

(B) Continuing reports.

Registered digital commodity brokers and dealers shall submit continuing reports limited to activities involving customer asset custody, trade execution, counterparty exposure, leverage, or margin.

No report may require disclosure of:

- (i) proprietary protocol source code,
- (ii) non-custodial software architecture, or
- (iii) identity of non-managerial developers.

(3) Statutory disqualification

Unchanged. It is correctly drafted.

(c) Rulemaking authority

(1) General authority.

The Commission may prescribe rules applicable to registered digital commodity brokers and dealers only where a person exercises custody, discretionary trading authority, or counterparty risk assumption.

The Commission may not regulate:

- (A) non-custodial protocol software;
- (B) decentralized validator infrastructure;
- (C) open-source development activity.

(2) Financing and trading agreements

(A) Minimum standards.

The Commission shall establish minimum requirements for disclosure, recordkeeping, margin and financing arrangements only where customer assets are held or controlled by the registrant.

Rehypothecation is prohibited unless:

- (i) expressly authorized in writing by the customer;
- (ii) assets remain identifiable and segregated; and
- (iii) customer retains superior claim in bankruptcy.

(B) Additional authority.

Except as prohibited under section 2(c)(2)(G)(iii), the Commission may promulgate rules narrowly limited to actual custodial or counterparty risk activity and may not expand its authority by classification, interpretation, or technological inferencing.

(d) Capital requirements

(1) In general.

Capital requirements shall apply only to registrants who:

- (A) custody customer digital commodities; or
- (B) act as principal counterparty; or
- (C) extend credit or margin.

(2) Purpose of capital.

Capital shall be sufficient to cover:

- customer asset shortfall risk
- operational loss risk
- counterparty settlement risk

Capital rules may not mirror or incorporate bank-prudential standards unless explicitly authorized by Congress.

(3) Dual registrants.

Dual registrants shall comply with the more stringent capital regime only with respect to the segregated business line that triggers such obligation.

(e) Reporting and recordkeeping

(1) Reporting.

Reports shall be limited to:

- (A) executed transactions;
- (B) open customer positions;
- (C) credit/margin exposure; and
- (D) financial solvency relative to customer obligations.

(2) Recordkeeping.

Registrants shall maintain records reasonably related to regulated activity only.

(3) Examination.

Commission inspections are limited to:

- (A) regulated customer accounts; and
- (B) balance sheet exposures tied to custody or leverage.

(f) Daily trading records

(1) Maintenance required.

Each registered digital commodity broker and dealer shall maintain complete daily trading records solely for transactions in which the registrant exercises custody, counterparty, or discretionary execution functions, including spot transactions, derivatives, forward positions, and financing arrangements.

Records may not require capture of:

- (i) distributed ledger validator data;
- (ii) open-source protocol communications;
- (iii) non-custodial software activity.

(2) Recorded communications.

Required communications shall be limited to transaction-specific communications reasonably related to trade execution, settlement, margin, or customer instruction.

This subsection shall not compel:

- (A) attorney-client privileged communications;
- (B) proprietary software development communications;
- (C) non-commercial speech.

(3) Required contents.

Records shall contain information reasonably necessary for trade reconstruction and customer protection, and may not exceed the scope of regulated activity.

(4) Customer and counterparty identification.

Records shall associate transactions only with legally relevant customers or counterparties and shall not require disclosure of individuals who do not exercise custody, execution, or managerial control.

(5) Audit trail.

Registrants shall maintain a reconstructable audit trail sufficient for regulated-activity trade reconstruction only.

(g) Business conduct standards

(1) General standard.

Registrants shall comply with business conduct standards as applied to regulated custodial, execution, or counterparty activities only.

(2) Required scope.

Standards shall address:

- (A) fraud;
- (B) manipulation;
- (C) abuse;
- (D) supervision of regulated personnel;
- (E) customer protection.

(3) Mandatory disclosures.

Disclosures are required only to counterparties other than eligible contract participants and only where the registrant exercises custody or trade discretion.

(4) Communication standard.

Communications shall be fair, balanced, and not misleading within regulated transactional contexts.

(5) Marketing and advertising.

Rules shall apply only to regulated financial product marketing and not protocol development.

(6) Prohibited acts.

Unchanged — correctly drafted.

(h) Duties of registrants

Each registrant shall:

- (1) maintain risk systems adequate for regulated functions only;
- (2) disclose operational and financial integrity data within jurisdictional authority;
- (3) maintain internal systems linked to regulated activity;
- (4) adopt conflict-mitigation policies for custodial and execution roles;
- (5) refrain from anticompetitive conduct within regulated markets.

(i) Chief Compliance Officer

(1) Designation.

Each registered digital commodity broker and dealer shall designate a natural person to serve as Chief Compliance Officer.

(2) Reporting line.

The Chief Compliance Officer shall report directly to the board of directors or senior managing officer.

(3) Responsibilities.

The Chief Compliance Officer shall be responsible for:

- (A) overseeing compliance with this Act and Commission rules;
- (B) administering written compliance programs;
- (C) identifying and managing conflicts of interest;
- (D) ensuring timely remediation of compliance failures;
- (E) establishing procedures for correcting, retesting, and closing compliance findings.

(4) Annual report.

(A) In general.

The Chief Compliance Officer shall annually prepare and sign a compliance report containing:

- (i) the registrant's compliance with this Act;
- (ii) a description of internal policies, procedures, ethics, and conflicts controls.

(B) Certification.

The report shall:

- (i) accompany the registrant's required financial filing; and
- (ii) include a sworn certification of completeness and accuracy subject to penalty of law.

(j) Segregation of Digital Commodity Customer Assets

(1) Holding of Customer Assets

(A) In general.

A registrant shall hold customer money, assets, and property only when the registrant exercises custody or control in a manner designed to minimize:

- (i) risk of loss; and
- (ii) unreasonable delay in customer access.

(B) Qualified custodian requirement

A registrant shall utilize a qualified digital commodity custodian only with respect to digital commodities classified as commodities under Federal law.

This requirement shall not apply to:

- (i) non-custodial services;
- (ii) software-only services;
- (iii) protocol-level operations.

(2) Segregation of Funds

(A) General rule.

All customer property shall be treated as belonging to the customer.

(B) No commingling.

Such property shall not be commingled with proprietary funds or used to secure obligations of any other person.

(C) Narrow exception for operational custody

(C)(i) Funds may be commingled solely for operational clearing or settlement in accounts at:

- insured depository institutions;
- trust companies;
- derivatives clearing organizations; or
- qualified digital commodity custodians.

(C)(ii) Withdrawals may only be made to:

- settle customer transactions;
- pay lawful charges;
- margin lawful positions.

The Commission may not authorize commingling beyond these purposes.

(3) Permitted investments

Money described in paragraph (2) may be invested only in the following:

- (A) obligations of the United States;
- (B) general obligations of any State or political subdivision thereof;
- (C) obligations fully guaranteed as to principal and interest by the United States; or
- (D) any other investment expressly permitted by the Commission by rule or regulation.

(4) Customer Protection During Bankruptcy

(A) Customer Property.

All money, digital commodities, and customer assets described in paragraph (2) shall be treated as “customer property” solely to the extent consistent with section 761 of title 11, United States Code.

(B) Transactions.

A transaction involving a digital commodity shall be treated as a “commodity contract” under section 761 of title 11 only where such transaction:

- (i) involves margined, leveraged, or financed trading; or
- (ii) is conducted on or subject to the rules of a registered entity.

(C) Broker classification.

A digital commodity broker or dealer shall be treated as a futures commission merchant only with respect to custodial or margin functions, and not with respect to purely spot or peer-to-peer transactions.

(D) Assets removed by customer election.

Assets removed from segregation pursuant to customer direction shall not be treated as customer property under title 11.

(5) Misuse of Customer Property

(A) Prohibited conduct.

It shall be unlawful for any person receiving customer property in custody to:

- (i) treat such property as proprietary property; or
- (ii) transfer, pledge, rehypothecate, or redeploy such property without explicit, contemporaneous customer authorization.

(B) Definition of “use.”

Use includes:

- (i) participation in blockchain validation; or
- (ii) participation in governance systems,

only when performed without written customer authorization.

(6) Participation in Blockchain Services

(A) Authorized use.

A broker or dealer may utilize customer-owned digital commodities for blockchain services only if:

- (i) the customer provides explicit, revocable written consent; and
- (ii) the asset is not commingled with proprietary assets.

(B) Limitations.

- (i) The Commission may require disclosure and opt-out rights.
- (ii) Blockchain participation may never be required as a condition of service.

(C) Limited regulatory modification authority.

The Commission may modify technical custody processes only to the extent necessary to prevent operational harm and may not waive segregation.

(D) Blockchain service defined.

A blockchain service is limited to:

- transaction validation
- network security
- protocol consensus

and shall not include governance voting, protocol design, or discretionary economic control.

(E) Federal Preemption.—

Nothing in this section shall be construed to expand or diminish the jurisdiction of any Federal or State authority, and the Commission's authority shall extend only to activities expressly within the Commodity Exchange Act.

(F) Exemptive Authority.—

(1) The Commission may grant exemptions only where:

- (A) customer custody protections remain intact;
- (B) segregation requirements are preserved; and
- (C) no exemption permits regulatory arbitrage.

(2) Foreign substitution.

Only permitted where:

- insolvency protections are equivalent
- customer property protections are equivalent
- segregation standards are equivalent

SEC. 407. REGISTRATION OF ASSOCIATED PERSONS.

(a) Amendments to Section 4k of the Commodity Exchange Act (7 U.S.C. § 6k).—

(1) Redesignation.

Subsections (4) through (6) are redesignated as subsections (5) through (7), respectively.

(2) New Subsection (4).—

By inserting after subsection (3) the following:

(4) Registration of Associated Persons of Digital Commodity Brokers and Dealers.—

(A) Registration Requirement.

It shall be unlawful for any person to act as an associated person of a digital commodity broker or digital commodity dealer unless such person is registered with the Commission solely with respect to commodity and digital commodity activities within the jurisdiction of the Commodity Futures Trading Commission.

(B) Prohibition on Knowing Employment.

It shall be unlawful for any digital commodity broker or digital commodity dealer to permit any person to become or remain an associated person of such registrant if the registrant knew, or in the exercise of reasonable care should have known, that such person is not properly registered, or that such registration has expired, been suspended, or revoked.

(C) Jurisdictional Limitation.

Nothing in this subsection shall be construed to expand, alter, or diminish the jurisdiction of the Securities and Exchange Commission over any person, product, or activity relating to securities.

(3) Conforming Amendment.—

In subsection (5) (as redesignated), strike “or of a commodity trading advisor” and insert “of a commodity trading advisor, of a digital commodity broker, or of a digital commodity dealer”.

(b) Conforming Amendments.—

The Commodity Exchange Act (7 U.S.C. § 1a et seq.) is amended by striking “section 4k(6)” wherever it appears and inserting “section 4k(7)”.

SEC. 408. REGISTRATION OF COMMODITY POOL OPERATORS AND COMMODITY TRADING ADVISORS.

(a) Amendments to Section 4m of the Commodity Exchange Act (7 U.S.C. § 6m).—

Section 4m(3) of the Commodity Exchange Act is amended as follows:

1. Clarification of Covered Persons.—

Subparagraph (A) is amended—

(A) by striking “any commodity trading advisor” and inserting “a commodity pool operator or a commodity trading advisor”; and

(B) by striking “acting as a commodity trading advisor” and inserting “acting as a commodity pool operator or as a commodity trading advisor”.

2. Expansion of Covered Commodities.—

Subparagraph (C) is amended by inserting “digital commodities,” after “physical commodities,”.

(b) Addition of Exemptive Authority.—

Section 4m of the Commodity Exchange Act (7 U.S.C. § 6m) is amended by adding at the end the following:

“(4) Exemptive Authority.—

The Commission shall, by rule, adopt exemptions from the requirements of this section for commodity pool operators and commodity trading advisors where the Commission determines that such exemptions—

- (A) eliminate duplicative, conflicting, or unduly burdensome regulatory obligations;
- (B) promote responsible innovation;
- (C) foster the development of fair, transparent, and orderly cash or spot digital commodity markets;
- (D) are necessary or appropriate in the public interest; and
- (E) are consistent with the protection of customers.”

SEC. 409. EXCLUSION FOR DECENTRALIZED FINANCE ACTIVITIES.

(a) **Technical and Non-Discretionary Activities Not Treated as Regulated Functions.**— Notwithstanding any other provision of this Act, a person shall not be deemed a registrant, intermediary, exchange, broker, dealer, or otherwise subject to regulation under this Act *solely* because the person engages in one or more of the following non-discretionary, technically facilitative activities, provided that such person does not exercise discretionary control over customer assets or transactions:

(1) **Network Participation.**

Operating, validating, sequencing, propagating, or relaying blockchain transactions, or performing functionally equivalent non-discretionary network operations.

(2) **Infrastructure and Computational Services.**

Providing computational, bandwidth, node, or oracle infrastructure that does not involve discretionary transaction control, order routing, or customer-asset management.

(3) **Passive Interface Services.**

Providing user interfaces that allow persons to read, query, or visualize blockchain data without exercising control over transaction execution, asset movement, or trading parameters.

(4) **Software Development and Distribution.**

Developing, publishing, or distributing software tools, protocols, or messaging systems, provided that the person does not retain functional ability to direct, control, or advantageously influence the execution, ordering, or settlement of transactions.

(5) **Functional Decentralized Protocol Operations.**

Maintaining decentralized financial messaging or spot-market protocols where (A) the protocol is fully autonomous as defined under Section ____; (B) the person exercises no unilateral discretionary control; and (C) no custodial, brokerage, or trade-execution authority is exercised.

(6) **Self-Custody Enablement.**

Developing, distributing, or maintaining non-custodial wallet or key-management tools that permit individuals to control their own assets, provided the developer or distributor cannot unilaterally access, freeze, rehypothecate, or direct user assets.

(b) **Preservation of Enforcement Authority.**—

Nothing in this section shall be construed to limit, restrict, impair, expand, or otherwise affect the

authority of the Commission to investigate, prevent, or bring enforcement actions with respect to —

- (1) fraud, including any manipulative or deceptive device or contrivance;
- (2) manipulation, attempted manipulation, or any manipulative or deceptive conduct; or
- (3) false, misleading, or inaccurate reporting, including any conduct that would violate sections 6(c), 9(a), or any other applicable provision of this Act.

SEC. 410. RESOURCES FOR IMPLEMENTATION AND ENFORCEMENT.

(a) Fee Authority.—

(1) Assessment of Fees.—

The Commodity Futures Trading Commission (referred to in this section as the “Commission”) shall assess and collect a fee from each person granted provisional registration status pursuant to section 106 for the purpose of defraying the reasonably necessary costs of—

- (A) reviewing and processing an initial application for registration; and
- (B) maintaining such person’s provisional registration status on an annual basis.

(2) Appropriations Limitation.—

Fees collected under this subsection shall be deposited in the general fund of the Treasury and shall be available for obligation only to the extent and in the amounts provided in advance in an appropriations Act.

(3) Discretionary Adjustments.—

Notwithstanding paragraphs (1) and (2), the Commission may, consistent with the public interest and the protection of market participants, reduce or eliminate any fee otherwise payable by a small or medium filer to promote fair competition, market access, or responsible innovation.

(b) Fee Schedule and Transparency.—

(1) Publication Requirement.—

The Commission shall publish in the *Federal Register* a schedule of fees to be assessed and collected under this section, together with all associated methodologies and underlying assumptions.

(2) Cost Analysis.—

Each published fee schedule for a fiscal year shall include a written analysis containing—

- (A) the Commission’s good-faith estimate of the total costs of carrying out its functions under this Act for that fiscal year;
- (B) a description of the methodology used to allocate such costs among fee payers; and
- (C) a certification that such fees do not exceed the reasonably anticipated costs of regulation, consistent with sections 304 and 306 of the Independent Offices Appropriation Act.

(3) Congressional Submission.—

Prior to publication in the *Federal Register* of any fee schedule or material modification thereof, the Commission shall submit a copy of the proposed schedule to—

(A) the Committee on Agriculture and the Committee on Appropriations of the House of Representatives; and

(B) the Committee on Agriculture, Nutrition, and Forestry and the Committee on Appropriations of the Senate.

(4) Timing of Publication.—

(A) Initial Fiscal Year.—

For the fiscal year in which this Act is enacted, the Commission shall publish the initial fee schedule not later than 30 days after the date of enactment.

(B) Subsequent Fiscal Years.—

For each fiscal year thereafter, the Commission shall publish the annual fee schedule not less than 90 days before the prescribed due date for annual fee payments.

(c) Late Payment Penalty.—

(1) Penalty Authority.—

The Commission may impose a monetary penalty on any person who fails to pay an annual fee assessed under this section within 30 days after the applicable due date.

(2) Penalty Calculation.—

The penalty shall be calculated as—

(A) 5 percent of the unpaid fee; multiplied by

(B) the number of full, consecutive 30-day periods that have elapsed since the due date.

(d) Reimbursement of Excess Collections.—

If, for any fiscal year beginning after the date of enactment, the total amount of fees collected under this section exceeds the amount authorized to be obligated under subsection (a)(2) for that fiscal year, the Commission shall—

(1) reimburse such excess funds to all persons who timely paid annual fees;

(2) calculate such reimbursements on a pro rata basis;

(3) exclude any late-payment penalties from the pro rata calculation; and

(4) issue such reimbursements not later than 60 days after the close of that fiscal year.

(e) Deposit of Fees Into the Treasury.—

All amounts collected under this section shall be deposited as discretionary offsetting collections to the credit of the applicable Commission appropriation account, fund, or budgetary line item, and shall remain available for obligation only for the purposes authorized under subsection (f) and only to the extent and in the amounts provided in advance in appropriations Acts.

(f) Authorization of Appropriations.—

In addition to any other amounts otherwise authorized to be appropriated to the Commission, there are authorized to be appropriated to the Commission such sums as are collected under this section, to remain available solely for carrying out the duties and functions of the Commission under this Act.

(g) Expedited Hiring Authority.—

(1) Appointment Authority.—

The Chairman, acting pursuant to section 6(a) of this Act, may appoint individuals to positions described in paragraph (2)—

(A) in accordance with the statutes, rules, and regulations governing appointments to positions in the excepted service (as defined in section 2103 of title 5, United States Code); and

(B) without regard to the statutes, rules, or regulations governing appointments to positions in the competitive service (as defined in section 2102 of title 5, United States Code).

(2) Covered Positions.—

A position eligible for appointment under paragraph (1) shall be a position within the Commission that—

(A) is classified within the competitive service; and

(B) requires specialized expertise in one or more of the following fields:

(i) digital commodities markets;

(ii) financial or capital market formation or regulation;

(iii) market structure, surveillance, or integrity monitoring;

(iv) data science, data collection, or data analytics; or

(v) information technology, cybersecurity, or system safeguards.

(3) Rule of Construction.—

The appointment of an individual under this subsection shall not be construed to convert the position from the competitive service to the excepted service.

(h) Sunset.—

The authorities conferred by this section shall terminate at the conclusion of the fourth fiscal year beginning after the date of enactment of this Act.

SEC. 411. REQUIREMENTS RELATED TO DISCRETIONARY CONTROL OVER DIGITAL COMMODITY SYSTEMS..

The Commodity Exchange Act (7 U.S.C. 1 et seq.), as amended by the preceding provisions of this Act, is further amended by inserting after section 4v the following:

SEC. 4w. DISCLOSURE AND SAFEGUARDS FOR DIGITAL COMMODITY SYSTEM CONTROL PERSONS.

(a) Scope.—

This section applies only to digital commodity systems subject to the jurisdiction of the Commission and does not apply to digital asset systems determined by the Securities and Exchange Commission to constitute securities or to be otherwise subject to the securities laws.

(b) Disclosure Obligations for Discretionary Control Persons.—

A person shall be subject to the requirements of this subsection only if the person possesses material discretionary authority, directly or indirectly, to alter, modify, upgrade, or otherwise direct the operational, consensus, or governance functions of a digital commodity system.

A person described in the preceding sentence shall—

- (1) file a disclosure with the Commission, in such form and manner as the Commission may prescribe, identifying the nature and scope of such discretionary authority;
- (2) update such disclosure within 30 days of any material change in such authority; and
- (3) comply with such additional disclosure requirements as the Commission determines to be—
 - (A) necessary to identify risks of manipulation or fraud; and
 - (B) narrowly tailored to the Commission’s jurisdiction under this Act.

(c) Prohibited Conduct.—

Nothing in this section shall be construed to prohibit a control person from selling, transferring, or disposing of a digital commodity unless such conduct—

- (1) constitutes manipulation, attempted manipulation, or deceptive conduct under section 6(c); or
- (2) is undertaken in conjunction with an undisclosed exercise of discretionary authority reasonably expected to materially influence—
 - (A) network functionality;
 - (B) consensus or validation processes; or
 - (C) user access or transaction execution.

(d) Safe Harbor for Non-Discretionary and Autonomous Activities.—

A person shall not be considered a discretionary control person solely because the person—

- (1) develops, publishes, or distributes software, provided such person does not retain unilateral upgrade authority;
- (2) operates nodes, validators, or computational infrastructure without unilateral governance or upgrade authority;
- (3) participates in governance processes in a manner proportionate, non-coordinated, and non-determinative;
- (4) provides passive interfaces, explorers, data feeds, or analytical tools;
- (5) provides non-custodial wallets, key-management tools, or other self-custody technologies; or
- (6) participates in an autonomous or decentralized governance system where no person or group possesses unilateral discretionary authority.

(e) Definitions.—

(1) Discretionary Authority.—

The term “discretionary authority” means the unilateral ability, whether by technical mechanism, governance mechanism, or coordinated influence, to materially alter network rules, validation parameters, consensus thresholds, or system functionality.

(2) Material Alteration.—

The term “material alteration” means any change reasonably expected to influence market integrity, transaction execution, or the economic characteristics of a digital commodity regulated under this Act.

(3) Digital Commodity System.—

The term “digital commodity system” means a blockchain-based protocol, network, or infrastructure whose native unit constitutes a digital commodity under section 1a(9).

(f) Preservation of Jurisdiction.—

Nothing in this section shall be construed to—

(1) expand or limit the jurisdiction of the Commission or the Securities and Exchange Commission;

(2) determine whether an asset is a commodity or security;

(3) affect the jurisdictional test applied under the Securities Act of 1933, the Securities Exchange Act of 1934, or this Act; or

(4) impair the authority of the Commission to investigate, prevent, or bring enforcement actions under section 6(c), section 9(a), or any other applicable provision of this Act.

SEC. 4x. TREATMENT OF DIGITAL REPRESENTATIONS OF COMMODITIES AND OTHER TRADABLE DIGITAL ITEMS.

(a) Scope.—

This section applies only to digital items traded or offered on a registered entity that are not securities under the Securities Act of 1933 or the Securities Exchange Act of 1934.

Nothing in this section shall be construed to—

(1) expand the jurisdiction of the Commission to securities;

(2) reclassify a security as a commodity; or

(3) affect the authority of the Securities and Exchange Commission.

(b) Digital Representation of a Commodity.—

A digital item shall be treated as a digital representation of a commodity, and therefore a digital commodity under this Act, only if the digital item:

(1) represents a lawful interest, exposure, or settlement right in a commodity as defined in section 1a(9);

- (2) contains no expectation of profit based on the managerial efforts of others;
- (3) contains no discretionary upgrade authority or system-level managerial control; and
- (4) satisfies any additional criteria the Commission may prescribe to ensure statutory consistency with the Commodity Exchange Act.

Autonomous Commodity Primitives shall be treated as digital representations of commodities under this subsection.

(c) Other Tradable Digital Items.—

A digital item that does not meet the requirements of subsection (b) may be traded on a registered entity only if:

(1) the item satisfies objective criteria established by the Commission demonstrating that the item—

- (A) does not constitute a security;
- (B) is not dependent on a common enterprise;
- (C) does not rely on managerial efforts for value or operation; and
- (D) can be regulated as a commodity without impairing SEC jurisdiction;

(2) the registered entity complies with rules adopted by the Commission relating to—

- (A) disclosure;
- (B) recordkeeping;
- (C) capital;
- (D) reporting;
- (E) business conduct;
- (F) documentation;
- (G) governance and supervision; and
- (H) segregation of customer assets.

(d) Limitation.—

No rule issued under this section may—

- (1) classify a digital asset as a commodity solely because it is traded on, or subject to the rules of, a registered entity;
- (2) classify a security as a commodity; or
- (3) impair the operation of the securities laws.

(e) Definitions.—

(1) Digital Representation of a Commodity.

A digital item that reflects the characteristics, economic interest, or settlement rights of a commodity under section 1a(9).

(2) Tradable Digital Item.

A digital item capable of sale, transfer, or settlement on a registered entity that is not a digital representation of a commodity and is not a security.

SEC. 6e. PROHIBITION ON TRADING DIGITAL COMMODITIES USED PRIMARILY FOR UNLAWFUL MARKET CONDUCT.

(a) Prohibited Trading.—

No registered entity, and no person or entity registered with the Commission, may list, offer, solicit, facilitate, execute, clear, report, or otherwise deal in any digital commodity or digital representation of a commodity if—

(1) a court of competent jurisdiction has determined, in a final order, that the digital commodity was created, deployed, or principally designed to facilitate:

(A) fraud;

(B) market manipulation; or

(C) conduct constituting a violation of sections 6(c) or 9(a) of this Act; or

(2) the Commission determines, after notice-and-comment rulemaking, that the digital commodity's core functional design renders its ordinary, intended, and predominantly foreseeable use equivalent to conduct prohibited under section 6(c) or 9(a).

(b) Objective Criteria Required.—

The Commission may issue objective criteria for identifying commodities subject to subsection (a)(2), but any such criteria must—

(1) be technologically grounded and content-neutral;

(2) rely on functional characteristics, not user intent, speech, or association;

(3) be consistent with the Administrative Procedure Act;

(4) respect constitutional due-process requirements; and

(5) be applied exclusively to conduct within the Commission's jurisdiction under this Act.

(c) Limitations.—

Nothing in this section shall be construed to—

(1) authorize the Commission to regulate speech, advocacy, political association, or lawful political activity;

(2) classify any digital asset as a commodity or security;

(3) expand the Commission's jurisdiction beyond commodities and the activities of registered entities;

(4) prohibit trading of a digital commodity solely because users have, on occasion, used it unlawfully; or

(5) impair the operation of a digital commodity whose primary design and ordinary use are lawful.

(d) Rule of Construction.—

This section shall be interpreted in a manner that—

- (1) preserves market integrity;
- (2) prevents manipulation and fraud;
- (3) avoids overbreadth and vagueness;
- (4) respects constitutional protections; and
- (5) maintains the jurisdictional boundaries between this Act, the securities laws, and other federal statutes.

SEC. 413. CONFLICT OF INTEREST RULEMAKING.

(a) Rulemaking Deadline.—

Not later than 360 days after the date of enactment of this Act, the Commodity Futures Trading Commission (in this section referred to as the “Commission”) shall, by rule, establish uniform, objective, and enforceable requirements for the—

1. identification,
2. mitigation, and
3. resolution

of conflicts of interest within and among—

- (A) registered entities (as defined in section 1a of the Commodity Exchange Act); and
- (B) persons required to be registered with the Commission.

Such rules shall be designed to promote market integrity, customer protection, and the prevention of fraud, manipulation, or abusive market conduct, consistent with the purposes of the Commodity Exchange Act.

(b) Scope of Conflicts.—

The rules required under subsection (a) shall, at a minimum, address conflicts of interest arising from—

1. vertically integrated market structures, including situations in which an entity performs multiple market functions that may create misaligned incentives or supervisory asymmetries;
2. common ownership or control between any combination of exchanges, brokers, dealers, custodians, clearing entities, or other intermediaries subject to regulation under this Act; and
3. any governance, operational, supervisory, or compensation structure that creates competing duties of loyalty, care, or oversight, or that otherwise threatens fair, orderly, and efficient market functioning.

The Commission shall ensure that such rules incorporate functional, architecture-based criteria appropriate to digital commodity markets and distributed-ledger technological environments.

(c) Rule of Construction.—

Nothing in this section shall be construed to permit the Commission to—

1. regulate lawful corporate structure, organizational form, or ownership arrangements unrelated to customer protection, market integrity, or the prevention of manipulation and fraud;
2. impose requirements inconsistent with the Commodity Exchange Act, the Administrative Procedure Act, or constitutional due-process standards; or
3. interpret this section as authorizing the Commission to classify any asset as a security or to alter the jurisdictional boundaries between the Commission and the Securities and Exchange Commission.

Rules promulgated under this section shall be narrowly tailored, technologically neutral, and applied in a manner consistent with constitutional limits and the statutory purposes of this Act.

SEC. 414. EFFECTIVE DATE.

(a) General Effective Date.—

Except as otherwise expressly provided in this title, this title and the amendments made by this title shall take effect 270 days after the date of enactment of this Act, to permit—

1. the orderly adoption of rules under the Commodity Exchange Act;
2. coordination with the Securities and Exchange Commission and other federal agencies; and
3. the implementation of operational, supervisory, and compliance systems necessary to effectuate this Act.

(b) Preservation of Existing Rights and Proceedings.—

Nothing in this section shall be construed to—

1. impair or alter any legal right, duty, privilege, or obligation existing before the effective date of this title;
2. affect any administrative, civil, or criminal proceeding commenced before the effective date;
3. invalidate, modify, or limit any order, rule, no-action relief, exemption, or interpretive guidance issued by the Commission prior to the effective date, unless expressly superseded by a rule adopted under this Act; or

4. disturb any final adjudication entered by a court of competent jurisdiction before the effective date.

All such rights, obligations, actions, and proceedings shall continue as if this title had not been enacted.

(c) Transitional Rulemaking Authority.—

The Commission may issue interim rules, interpretive guidance, or compliance advisories before the effective date to facilitate orderly transition, provided that such interim measures —

1. are consistent with the Administrative Procedure Act;
2. do not create new legal obligations before the effective date; and

SEC. 415. SENSE OF CONGRESS.

It is the sense of Congress that—

(1) nothing in this Act, nor any amendment made by this Act, shall be construed to authorize any Federal or State entity to regulate, supervise, or control any commodity—other than a digital commodity—traded or exchanged in a spot or cash market, and no provision of this Act shall be interpreted to alter, expand, or diminish the jurisdictional boundaries set forth in the Commodity Exchange Act;

(2) the authority of the Commodity Futures Trading Commission shall remain strictly limited to —

(A) digital commodities, as defined in this Act; and

(B) activities expressly enumerated in this Act, including those relating to the registration, oversight, supervision, and enforcement of persons and entities engaged in digital-commodity activities; and

(3) nothing in this Act shall be construed to grant the Commission jurisdiction over any security, over the offer or sale of securities, or over any activity subject to the jurisdiction of the Securities and Exchange Commission, and this Act shall be applied in a manner that preserves the longstanding statutory separation between the securities laws and the Commodity Exchange Act.

TITLE V—INNOVATION AND TECHNOLOGY IMPROVEMENTS

SEC. 501. FINDINGS; SENSE OF CONGRESS.

(a) Findings.—

Congress finds the following:

(1) Entrepreneurs, engineers, and technological innovators within and outside the United States are designing, developing, and deploying the next generation of internet-based infrastructure, distributed systems, and programmable protocols.

(2) Digital commodity networks constitute a novel form of coordinated economic and operational organization, enabling individuals and entities to cooperate through cryptographic, distributed, verifiable, and programmable systems.

(3) Digital commodities function as native economic coordination instruments that align individual incentives with collective network objectives through transparent, rules-based, and auditable mechanisms.

(4) If properly structured, properly classified, and governed under clear statutory safeguards, the digital commodity ecosystem has the capacity to:

- expand the United States economy,
- increase technological competitiveness, and
- improve the daily lives of Americans
by enabling distributed systems that manage activities, allocate resources, and facilitate decentralized decision-making.

(5) Mature Distributed Ledger System, and the digital commodities integral to such systems, can enhance:

- user control,
- transparency,
- operational efficiency, and
- reduced transaction costs,
provided that robust protections safeguard—
(A) investors;

- (B) consumers;
- (C) market integrity;
- (D) financial stability; and
- (E) national security.

(6) Blockchain technology allows for new forms of network participation, coordination, and infrastructure formation that may be lawfully used by United States businesses for productive, efficient, and innovation-driven purposes.

(7) Jurisdictions around the world are rapidly establishing legal and regulatory frameworks to attract digital commodity enterprises, recognizing the strategic economic, technological, and national-security implications of Mature Distributed Ledger System and digital commodities.

(8) Contrary to common misconception, digital commodity transactions—when supported by lawful, constitutionally sound investigative tools—provide law enforcement with highly effective mechanisms for tracing, analyzing, and prosecuting illicit financial activity, including complex financial crimes.

(9) The Committee on Financial Services of the House of Representatives has held numerous public hearings identifying systemic, market, consumer, investor, and national security risks arising from digital commodity activities, demonstrating the need for clear statutory safeguards concurrent with responsible innovation.

(b) Sense of Congress.—

It is the sense of Congress that—

(1) The United States should maintain sustained, structured, and institutional expertise regarding the technological, economic, security, and governance implications of distributed systems and the next generation of internet-based infrastructure.

(2) The United States should promote technological advances only where credible, measurable, and reproducible evidence demonstrates that such advances —

(A) improve the stability, resiliency, and accessibility of the United States financial system;

(B) expand fair and equitable access to lawful financial services; and

(C) preserve the integrity and security of investors, consumers, and the national financial system.

(3) The United States must support domestic, lawful, and responsible development of digital commodities and distributed technologies, recognizing that failure to do so risks the migration of strategic technological development to jurisdictions that lack adequate legal, prudential, and national-security safeguards.

(4) Congress should engage in ongoing consultation with public-sector and private-sector stakeholders to tailor statutory frameworks to—

(A) the unique operational and systemic risks associated with digital commodity activities and digital asset activities, including activities involving Autonomous Commodity Primitives, distributed systems, and decentralized execution environments; and

(B) the distinct technological and economic properties of distributed networks, distributed ledgers, and Mature Distributed Ledger Systems.

(5) Congress should adopt a functional, activity-based statutory framework that addresses risks, preserves innovation, removes regulatory ambiguity, and is compatible with the constitutional, jurisdictional, and prudential boundaries that govern financial regulation in the United States.

(6) Consumers and market participants benefit from a digital commodities framework that is—

(A) consistent with longstanding investor and market protections;

(B) constitutionally sound;

(C) jurisdictionally coherent; and

(D) precisely tailored to the operational characteristics, economic incentives, and systemic risks of the digital commodity ecosystem.

SEC. 502. STRATEGIC HUB FOR INNOVATION AND FINANCIAL TECHNOLOGY.

Section 4 of the Securities Exchange Act of 1934 (15 U.S.C. 78d) is amended by adding at the end the following:

“(k) Strategic Hub for Innovation and Financial Technology.—

(1) ESTABLISHMENT.—

Not later than 180 days after the date of enactment of this subsection, the Securities and Exchange Commission shall establish an internal advisory body to be known as the Strategic Hub for Innovation and Financial Technology (referred to in this subsection as the ‘FinHub’) to support structured engagement, technical analysis, and regulatory preparedness concerning emerging financial technologies.

(2) MEMBERSHIP.—

The Commission shall determine the composition of FinHub and shall appoint members from such divisions and offices of the Commission as the Commission determines appropriate, including the Division of Trading and Markets, the Division of Corporation Finance, and the Division of Investment Management.

(3) RESPONSIBILITIES.—

FinHub shall—

- (A) provide technical, policy, and market-structure analysis to the Commission regarding emerging financial technologies;
- (B) facilitate direct engagement with market participants, developers, and infrastructure providers working on financial technologies;
- (C) provide educational and interpretive assistance regarding the Commission’s rules, regulations, processes, and compliance expectations;
- (D) identify regulatory gaps, systemic risks, and operational trends arising from new financial technologies; and
- (E) support inter-agency coordination where emerging technologies intersect with commodities, banking, payments, or national security frameworks.

(4) REPORT TO THE COMMISSION.—

(A) IN GENERAL.—

Not later than October 31 of each calendar year beginning after 2025, FinHub shall submit to the Commission an annual written report summarizing—

- (i) the engagement activities conducted by FinHub;
- (ii) material findings and regulatory observations; and
- (iii) recommendations, if any, for statutory, regulatory, or supervisory improvements.

(B) INCLUSION IN CONGRESSIONAL REPORT.—

The Commission shall include the report described in subparagraph (A) in the Commission’s annual report to Congress.

(C) CONFIDENTIALITY.—

No report submitted under this paragraph may include confidential, proprietary, or personally identifiable information.

SEC. 503. CODIFICATION OF LABCFTC.

Section 18 of the Commodity Exchange Act (7 U.S.C. 22) is amended by adding at the end the following:

“(c) LabCFTC.—

(1) ESTABLISHMENT.—

There is hereby established within the Commodity Futures Trading Commission an internal office to be known as LabCFTC.

(2) STATUTORY PURPOSE.—

The purposes of LabCFTC shall be to—

- (A) promote responsible financial technology innovation and fair competition in a manner consistent with customer protection, market integrity, and national financial stability;
- (B) serve as an institutional information platform to inform the Commission regarding emerging financial technologies, market-structure developments, and operational risks;
- (C) facilitate structured engagement between the Commission and persons developing, deploying, researching, or utilizing financial technology; and
- (D) support objective, evidence-based regulatory preparedness for novel market activity enabled by financial technology.

(3) DIRECTOR.—

(A) Appointment.—

LabCFTC shall be headed by a Director appointed by the Commission, who shall serve at the pleasure of the Commission.

(B) Reporting.—

Notwithstanding section 2(a)(6)(A), the Director shall report directly to the Commission.

(C) Authority.—

The Director shall perform such functions and duties as the Commission may prescribe.

(4) DUTIES.—

LabCFTC shall—

- (A) advise the Commission regarding rulemakings, guidance, interpretive actions, and staff actions relating to financial technology;
- (B) provide education, training, and technical briefings to the Commission and its staff concerning emerging financial technologies;
- (C) evaluate and advise the Commission regarding technologies that may enhance the Commission's supervision, oversight, and enforcement capabilities;
- (D) engage with academic institutions, researchers, private-sector professionals, and technical experts concerning financial technologies relevant to activities regulated under this Act;
- (E) provide persons working in emerging technology fields with clear and accurate information regarding the Commission's regulations and the role and responsibilities of registered futures associations;

(F) encourage persons developing or deploying emerging financial technologies to engage with the Commission for the purpose of identifying regulatory risks, compliance expectations, and market-integrity considerations; and

(G) Research on Autonomous Commodity Primitives.—

Assist the Commission, in a non-regulatory and advisory capacity only, in evaluating the technical feasibility, legal characteristics, operational architecture, risk profile, and market-structure implications of Autonomous Commodity Primitives (ACPs) when used solely as documentary instruments designed to evidence, represent, or memorialize lawful ownership, custody, bailment, or beneficial interests in commodities recognized under section 1a(9) of this Act.

(5) REPORT TO CONGRESS.—

(A) Annual Report.—

Not later than October 31 of each calendar year beginning after 2025, LabCFTC shall submit a written report to—

- (i) the Committee on Agriculture of the House of Representatives; and
- (ii) the Committee on Agriculture, Nutrition, and Forestry of the Senate.

(B) Required Contents.—

Each report under subparagraph (A) shall include:

(i) the total number of persons or entities that engaged with LabCFTC during the reporting period;

(ii) a consolidated summary of the general subject matter discussed;

(iii) a description of actions taken by LabCFTC to improve Commission responsiveness, transparency, and service effectiveness;

(iv) recommendations provided to the Commission concerning rules, guidance, policy statements, interpretive positions, exemptive relief, or orders, as well as any recommended legislative action; and

(v) any additional information the Director determines necessary to inform Congress of matters within LabCFTC's statutory mandate.

(C) Confidentiality.—

Each report shall comply with the confidentiality requirements of section 8 of this Act.

(6) RECORDS AND ENGAGEMENT OVERSIGHT.—

The Commission shall—

(A) maintain systems of record necessary to track, audit, and oversee public engagements conducted through LabCFTC;

(B) retain communications, submissions, and materials received in accordance with Commission data-retention, cybersecurity, and confidentiality requirements; and

(C) take reasonable and appropriate measures to protect confidential, proprietary, or sensitive information received through LabCFTC engagements.

(b) Conforming Amendments.

Section 2(a)(6)(A) of the Commodity Exchange Act is amended—

(1) by striking “paragraph and in” and inserting “paragraph,”; and

(2) by inserting “and section 18(c)(3),” before “the executive”.

(c) Effective Date.—

The Commodity Futures Trading Commission shall implement the amendments made by this section, including compliance with section 18(c)(6), not later than 180 days after the date of enactment of this Act.

SEC. 504. STUDY ON DECENTRALIZED FINANCE.

(a) Joint Study Required.—

The Commodity Futures Trading Commission (referred to in this section as the “CFTC”), the Securities and Exchange Commission (referred to in this section as the “SEC”), and the Secretary of the Treasury shall jointly conduct and complete a comprehensive, evidence-based study of decentralized finance, including the architectural, economic, operational, prudential, supervisory, and national-security implications of decentralized finance systems.

The study shall include the following:

(1) Architecture and Operation.—

A technical and functional assessment of—

(A) the nature, scale, and usage patterns of decentralized finance blockchain applications; and

(B) the architectural mechanisms—including consensus, validation, upgrade pathways, messaging systems, and execution environments—by which decentralized finance applications operate.

(2) System Interoperability.—

An analysis of—

- (A) the interoperability of decentralized finance applications with other Mature Distributed Ledger Systems; and
- (B) the interoperability of decentralized finance applications with software-based systems, including user interfaces, wallet software, application programming interfaces, indexing services, and other digital infrastructure.

(3) Governance Systems.—

An evaluation of governance frameworks through which decentralized finance applications are —
developed,
published,
constituted,
administered,
maintained, or
otherwise distributed,

with attention to:

- (A) whether such frameworks enhance or diminish:
 - (i) actual decentralization; and
 - (ii) the risk-benefit profile of decentralized governance; and
- (B) the identification of technical, operational, or procedural mechanisms that may mitigate governance-related risks, including unilateral control, upgrade authority, or concentrated influence.

(4) Benefits Analysis.—

A systematic evaluation of potential benefits associated with decentralized finance, including —

- (A) operational resilience and availability;
- (B) system and protocol interoperability;
- (C) market competition and innovation;
- (D) transaction efficiency;
- (E) transparency and traceability of on-chain activity; and
- (F) structural disintermediation and reduction of single points of failure.

(5) Risk Analysis.—

A comprehensive assessment of risks associated with decentralized finance, including —

- (A) pseudonymity of users and transactional parties;
- (B) disintermediation risks to consumers, investors, and market structure;
- (C) cybersecurity vulnerabilities, protocol-level risks, and smart-contract exploit vectors; and
- (D) systemic risk pathways arising from interconnected or composable smart-contract systems.

(6) Financial System Integration.—

An assessment of—

- (A) the extent to which decentralized finance has integrated with, or impacts, traditional financial markets; and
- (B) the associated implications for financial stability, risk transmission, prudential oversight, and potential risk-mitigation benefits.

(7) Illicit Finance Comparison.—

An empirical comparison of—

- (A) the prevalence and typology of illicit activity within decentralized finance systems; and
- (B) the prevalence and typology of illicit activity in traditional financial markets,

including whether, and to what extent, transparent blockchain-based digital commodities enhance or impair investigative, supervisory, or law-enforcement capabilities.

(8) Enforcement and Mitigation Strategies.—

An analysis of—

- (A) mechanisms for detecting, mitigating, and addressing illicit activity within decentralized finance systems; and
- (B) mechanisms for detecting, mitigating, and addressing illicit activity within traditional financial markets, including how enforcement approaches must be tailored to the architectural characteristics of the relevant system.

(9) Cross-Border Accessibility.—

An assessment of the role of decentralized finance in facilitating or expanding cross-border transactions, including lawful financial inclusion and associated prudential or national-security considerations.

(10) Embedded Compliance Architectures.—

A technical evaluation of the feasibility, risks, limitations, and benefits of embedding—

self-executing compliance logic,
risk-control mechanisms, and
enforcement-aligned safeguards

directly into decentralized finance protocols, including distinctions between programmable safeguards and managerial or discretionary control as articulated in the Doctrine of Anchored Decentralization.

(b) Mandatory Interagency Consultation.—

In conducting the study under subsection (a), the CFTC and the SEC shall consult with the Secretary of the Treasury regarding the analyses required under paragraphs (7) through (10) of subsection (a), including financial integrity, national-security, sanctions-evasion, and illicit-finance considerations.

(c) Report to Congress.—

Not later than 1 year after the date of enactment of this Act, the CFTC and the SEC shall jointly submit to the relevant congressional committees a written report containing—

- (1) the results of the study required under subsection (a); and
- (2) any findings, conclusions, or recommendations the agencies determine appropriate.

(d) Government Accountability Office Study.—

(1) GAO Review Required.—

The Comptroller General of the United States shall conduct an independent study evaluating the matters described in paragraphs (1) through (10) of subsection (a), including an assessment of the methodology, completeness, and objectivity of the joint agency study.

(2) GAO Report.—

Not later than 1 year after the date of enactment of this Act, the Comptroller General shall submit a written report to the relevant congressional committees containing the results of the study.

(e) Definitions.—

(1) Decentralized Finance.—

(A) In General.—

The term “decentralized finance” means blockchain-based applications, including decentralized trading protocols and decentralized messaging systems, that permit users to engage in financial transactions in a self-directed manner without a third-party intermediary taking custody or control of digital commodities at any point during the transaction.

(B) Rule of Construction.—

Nothing in this paragraph shall be interpreted to limit or exclude any activity described in—

- (i) section 15I(a) of the Securities Exchange Act of 1934; or
- (ii) section 4v(a) of the Commodity Exchange Act.

(2) Relevant Congressional Committees.—

The term “relevant congressional committees” means—

- (A) the Committee on Financial Services and the Committee on Agriculture of the House of Representatives; and
- (B) the Committee on Banking, Housing, and Urban Affairs and the Committee on Agriculture, Nutrition, and Forestry of the Senate.

SEC. 505. STUDY ON AUTONOMOUS COMMODITY PRIMITIVES.

(a) Study Required.—

The Comptroller General of the United States shall conduct a comprehensive study on Autonomous Commodity Primitives (ACPs), including their—

1. technical architecture, operational design, and system interoperability;
2. legal characteristics as digital representations of commodities recognized under section 1a(9) of the Commodity Exchange Act;
3. potential use cases for
 - (A) commodity custody,
 - (B) settlement,
 - (C) documentation,
 - (D) registry functions, and
 - (E) bailment memorialization;
4. risk profile, including
 - (A) systemic risk,
 - (B) cybersecurity,
 - (C) custody risk,
 - (D) transparency, and
 - (E) market-integrity implications;
5. feasibility and prudential considerations for integrating ACPs into
 - (A) sovereign commodity markets,
 - (B) ABDC architectures,
 - (C) clearing and settlement systems, and
 - (D) federal financial infrastructure;
6. potential benefits, including
 - (A) auditability,
 - (B) resilience,
 - (C) settlement efficiency,
 - (D) global market interoperability, and
 - (E) reduction in counterparty and operational risk.

(b) NFTs Distinguished.—

The study shall not include non-fungible tokens (NFTs), which—

1. do not constitute commodities under section 1a(9) of the Commodity Exchange Act;
2. do not exhibit fungibility, economic substitutability, or price-discovery characteristics; and
3. are excluded from digital commodity classification under this Act.

(c) Report.—

Not later than 1 year after the date of enactment of this Act, the Comptroller General shall submit to the relevant congressional committees a public report containing the results, findings, and conclusions of the study required under subsection (a).

SEC. 506. STUDY ON EXPANDING FINANCIAL LITERACY AMONGST DIGITAL COMMODITY HOLDERS.

(a) CFTC Study on Digital Commodity Literacy.—

The Commodity Futures Trading Commission shall conduct a comprehensive study to identify, evaluate, and analyze the following:

1. the current level of financial literacy among retail holders of digital commodities, including demographic, geographic, and socioeconomic subgroups identified by the Commission;
2. methods to improve the timing, substance, accessibility, and format of financial literacy materials relating to digital commodities provided by the Commission;
3. methods to enhance coordination between the Commission and Federal, State, and local agencies—including the Financial Literacy and Education Commission—for the purpose of disseminating financial literacy materials regarding digital commodities;
4. the effectiveness of existing CFTC-led financial literacy initiatives, including those targeting—
 - (A) rural communities; and
 - (B) minority and underserved populations;
5. identification of the most relevant, clear, and comprehensible disclosures and educational materials needed for retail digital commodity holders to make informed decisions;
6. identification of the public-private partnership models most effective for delivering financial literacy related to digital commodity activities;

7. identification of the most relevant quantitative and qualitative metrics for measuring literacy improvements; and
8. development, in consultation with the Financial Literacy and Education Commission, of a national strategic framework for digital commodity financial literacy.

(b) SEC Study on Digital Asset Securities Literacy.—

The Securities and Exchange Commission shall conduct a separate, independent study focused exclusively on financial literacy relating to digital asset securities, including:

1. the current level of investor understanding of digital asset securities;
2. the clarity, accessibility, and effectiveness of SEC educational materials;
3. risks associated with investment contracts and digital asset securities offerings;
4. methods to enhance literacy concerning custody, market structure, and disclosure obligations in digital asset securities markets;
5. effectiveness of public-private partnerships in securities-related financial education; and
6. metrics for evaluating improved investor literacy in digital asset securities.

(c) Reports to Congress.—

Not later than 1 year after the date of enactment of this Act:

1. The Commodity Futures Trading Commission shall submit to—
 - (A) the Committee on Agriculture and the Committee on Financial Services of the House of Representatives; and
 - (B) the Committee on Agriculture, Nutrition, and Forestry of the Senate—a written report containing the findings, conclusions, and recommendations derived from the study required under subsection (a).
2. The Securities and Exchange Commission shall submit to—
 - (A) the Committee on Financial Services of the House of Representatives; and
 - (B) the Committee on Banking, Housing, and Urban Affairs of the Senate—a written report containing the findings, conclusions, and recommendations derived from the study required under subsection (b).

SEC. 507. STUDY ON FINANCIAL MARKET INFRASTRUCTURE IMPROVEMENTS.

(a) Study Required.—

The Securities and Exchange Commission (in this section referred to as the “Commission”) shall conduct a comprehensive study to assess whether additional statutory guidance, rulemaking, supervisory clarity, or regulatory modernization is necessary to facilitate the development, lawful operation, and market integration of tokenized securities products and tokenized derivatives products regulated under the securities laws.

The study shall evaluate whether such guidance or rules would—

1. foster the development of fair, orderly, and efficient financial markets consistent with section 3(f) of the Securities Exchange Act of 1934;
2. be necessary or appropriate in the public interest, including for the protection of investors and the maintenance of market stability; and
3. be consistent with longstanding investor-protection and market-integrity principles under the Securities Act of 1933, the Securities Exchange Act of 1934, and the rules thereunder.

(b) Required Scope.—

The study under subsection (a) shall include, at a minimum, analysis of—

1. the operational feasibility of tokenizing securities and security-based derivatives within the existing regulatory structure for exchanges, ATSS, clearing agencies, transfer agents, and other financial market infrastructures;
2. the interoperability and settlement integrity of tokenized securities products across clearing and settlement systems governed by the securities laws;
3. the cybersecurity, custody, identity-management, and system-safeguard considerations applicable to tokenized securities and tokenized derivatives platforms;
4. the risks and benefits associated with integrating distributed ledger technology into:
 - (A) transfer-agent functions;
 - (B) clearance and settlement processes;
 - (C) books-and-records obligations; and
 - (D) investor-protection mechanisms;
5. whether current Commission rules impose unintended barriers to innovation that could be addressed through interpretive guidance, exemptive relief, or modernized regulatory frameworks; and

6. whether additional statutory authority would support safe, orderly, and scalable implementation of tokenized securities-related market infrastructure.

(c) Report to Congress.—

(1) Deadline.—

Not later than 1 year after the date of enactment of this Act, the Commission shall submit to the relevant congressional committees a written report containing—

- (A) the findings and conclusions from the study conducted under subsection (a);
- (B) any regulatory gaps identified;
- (C) policy and supervisory recommendations; and
- (D) proposed statutory or regulatory implementation pathways.

(2) Relevant Congressional Committees.—

In this section, the term “relevant congressional committees” means—

- (A) the Committee on Financial Services and the Committee on Agriculture of the House of Representatives; and
- (B) the Committee on Banking, Housing, and Urban Affairs and the Committee on Agriculture, Nutrition, and Forestry of the Senate.

SEC. 508. STUDY ON BLOCKCHAIN IN PAYMENTS.

(a) STUDY REQUIRED.—

The Board of Governors of the Federal Reserve System (referred to in this section as the “Board”) shall conduct a comprehensive study evaluating the potential voluntary use of blockchain or distributed ledger technology by domestic private-sector entities within retail, commercial, and interbank payment systems, including an assessment of—

1. the detection, prevention, and reduction of fraud in retail, commercial, and wholesale payment systems;
2. the reduction of transaction costs, processing latency, settlement-cycle duration, and reconciliation inefficiencies;
3. the facilitation, execution, risk profile, and operational safeguards associated with automated and programmable payment mechanisms; and
4. the expected impact of such technologies on the efficiency, resiliency, reliability, and systemic-risk profile of domestic payment, clearing, and settlement infrastructures.

(b) REPORT TO CONGRESS.—

(1) DEADLINE.—

Not later than 1 year after the date of enactment of this Act, the Board shall submit a written report to—

- (A) the Committee on Financial Services of the House of Representatives; and
- (B) the Committee on Banking, Housing, and Urban Affairs of the Senate.

(2) CONTENTS.—

The report required under paragraph (1) shall include—

- (A) the Board’s technical and economic findings;
- (B) identification of operational, legal, prudential, and supervisory barriers to voluntary adoption;
- (C) an assessment of potential systemic risks and systemic-risk mitigants associated with the relevant technologies; and
- (D) policy-neutral implementation considerations, including interoperability questions, infrastructure impacts, and integration pathways with existing payment, clearing, and settlement systems.

(c) RULE OF CONSTRUCTION.—

Nothing in this section shall be construed to—

1. mandate the use of blockchain, distributed ledger technology, or any other emerging technology by any public or private entity; or
2. authorize the Board, or any other Federal agency, to compel or require the adoption of such technology by rule, guidance, supervisory expectation, or enforcement action.

SEC. 509. STUDY ON ILLICIT USE OF DIGITAL ASSETS.

(a) Comprehensive Review Required.—

Not later than 1 year after the date of enactment of this Act, the Secretary of the Treasury, acting through the Office of Terrorist Financing and Financial Crimes, and in consultation with FinCEN, OFAC, and such other components of the Department of the Treasury as the Secretary determines appropriate, shall conduct a comprehensive, risk-based, and evidence-driven review of the manner in which:

- Foreign Terrorist Organizations, and
- Transnational Criminal Syndicates

utilize digital assets in connection with illicit financial activity within Treasury’s jurisdictional remit.

The review shall be narrowly limited to:

1. demonstrated criminal misuse patterns,
2. systemic vulnerabilities verifiable through evidence, and
3. conduct that falls squarely within Treasury’s statutory authority, including anti-money-laundering, counter-terrorist-financing, and sanctions-evasion enforcement.

Nothing in this subsection shall be construed to authorize generalized surveillance of lawful persons, lawful transactions, constitutionally protected activity, or decentralized technological infrastructure.

(b) Report to Congress.—

(1) Deadline.—

Not later than 180 days after completion of the review required under subsection (a), the Secretary of the Treasury shall submit a written report to—

- (A) the Committee on Agriculture of the House of Representatives;
- (B) the Committee on Financial Services of the House of Representatives;
- (C) the Committee on Agriculture, Nutrition, and Forestry of the Senate; and
- (D) the Committee on Banking, Housing, and Urban Affairs of the Senate.

(2) Required Contents.—

The report shall include:

- (A) an evidence-based assessment of the specific methods by which illicit actors utilize digital assets;
- (B) a clear separation between criminal misuse and lawful technological architecture, including decentralized and non-custodial systems;
- (C) a review identifying regulatory blind spots arising from outdated statutory tools, not an expansion of generalized monitoring authority; and
- (D) targeted, constitutionally aligned recommendations for improving compliance and enforcement only with respect to entities already subject to lawful Treasury jurisdiction, including BSA-regulated financial institutions, money-services businesses, and foreign financial institutions covered by Treasury authorities.

(c) Rule of Construction.—

Nothing in this section shall be construed to—

1. create or imply new regulatory authority beyond existing statutory grants to the Department of the Treasury;
2. expand the scope of domestic or foreign mass-surveillance authorities;
3. diminish or undermine the presumption of lawful use of decentralized, non-custodial, or permissionless technological infrastructure; or
4. authorize the regulation, restriction, or prohibition of digital assets solely on the basis of theoretical or speculative risk.

**SEC. 510. GAO STUDY ON CERTAIN FOREIGN-LOCATED
CENTRALIZED INTERMEDIARIES SERVING UNITED STATES
PERSONS.**

(a) Study Required.

The Comptroller General of the United States, in consultation with the Secretary of the Treasury, shall conduct a structured, evidence-based study to:

(1) Risk Assessment.

Identify and assess demonstrable, jurisdictionally relevant risks arising from centralized financial or digital-asset intermediaries that—

- (A) are primarily located in foreign jurisdictions;
- (B) provide services to United States persons; and
- (C) operate without regulatory standards substantially comparable to the requirements of the Bank Secrecy Act (31 U.S.C. § 5311 et seq.) or related U.S. anti-money-laundering, counter-terrorism-financing, or sanctions-screening obligations.

This assessment shall be limited to:

- documented compliance failures,
- systemic risk vectors, and
- jurisdictionally relevant conduct.

Speculative, hypothetical, or theoretical risks shall not serve as a basis for regulatory expansion.

(2) Evaluation of Existing U.S. Authorities.

Conduct an evaluation of whether existing statutory authorities—including the Bank Secrecy Act, the USA PATRIOT Act, Title 31 obligations, FinCEN guidance, and OFAC sanctions enforcement mechanisms—are:

- (A) adequate to address the risks identified under paragraph (1);
- (B) insufficient due to statutory limitation; or
- (C) underutilized or inconsistently applied by relevant agencies.

This evaluation must distinguish between:

- (i) gaps in law,
- (ii) gaps in implementation, and
- (iii) gaps in international cooperation.

(3) Targeted Policy Recommendations.

Provide narrowly tailored legislative or regulatory recommendations, if any, only to the extent necessary to mitigate the specific risks identified under paragraphs (1) and (2), and in a manner consistent with—

- (A) constitutional protections;
- (B) statutory jurisdictional boundaries; and
- (C) principles of proportionality, necessity, and technological neutrality.

(b) Report to Congress.

Not later than 1 year after the date of enactment of this Act, the Comptroller General shall submit a written report to Congress that includes—

- (1) the findings of the risk assessment;
- (2) an explanation of the evidentiary basis for each finding;
- (3) an evaluation of the sufficiency of existing statutory authorities; and
- (4) any recommendations developed pursuant to subsection (a)(3), together with a statement of legal authority.

(c) Rule of Construction.

Nothing in this section shall be construed to—

- (1) expand general regulatory jurisdiction beyond existing statutory authority;
- (2) authorize bulk collection of lawful personal data;
- (3) presume illegality based solely on foreign domicile; or

(4) diminish the presumption of lawful use of decentralized or distributed technological infrastructure.

SEC. 511. STUDIES ON FOREIGN ADVERSARY PARTICIPATION IN DIGITAL COMMODITY MARKETS.

(a) Treasury Study and Report.—

Not later than 1 year after the date of enactment of this section, the Secretary of the Treasury, in consultation with the Department of Justice (including the National Security Division and the Federal Bureau of Investigation), the Commodity Futures Trading Commission, and the Securities and Exchange Commission, shall conduct a targeted, evidence-based study and submit a report to the relevant congressional committees that —

(1) Ownership Structure Analysis.—

identifies any digital-asset market participants, including but not limited to digital-asset registrants under Federal law, that are directly or indirectly owned, controlled, or materially influenced by a foreign adversary, based upon —

- (A) documented ownership records;
- (B) controlling interest analysis; and
- (C) verifiable governance influence.

Presumptions shall not substitute for evidence.

(2) Data Collection Assessment.—

determines, based on documented technical or operational evidence, whether any government of a foreign adversary is collecting, harvesting, or otherwise acquiring digital-asset trading data relating to United States persons through digital-asset market infrastructure, including —

- (A) data exfiltration;
- (B) covert telemetry or metadata harvesting; or
- (C) opaque or undisclosed data-sharing arrangements.

Speculative or unverified assertions shall not form the basis of findings.

(3) Intellectual Property Evaluation.—

evaluates, based on forensic, legal, or technical substantiation, whether proprietary intellectual property of any digital-asset infrastructure provider or digital-asset registrant has been —

- (A) unlawfully accessed;
- (B) misappropriated;
- (C) replicated; or
- (D) exfiltrated

by or on behalf of a foreign adversary.

(b) GAO Study and Report.—

(1) Independent Study Required.—

Not later than 1 year after the date of enactment of this section, the Comptroller General of the United States shall conduct an independent, fact-based study and submit a report to the relevant congressional committees that mirrors the analytical framework of subsection (a), including—

- (A) ownership and control mapping;
- (B) verified data-acquisition risks; and
- (C) substantiated intellectual-property compromise evaluations.

The GAO shall maintain institutional independence and evidentiary rigor in all findings.

(c) Definitions.—

(1) Digital-Asset Market Participant.—

The term “digital-asset market participant” means—

- (A) any person required to register as a digital-asset or digital-commodity exchange, broker, or dealer under Federal law; and
- (B) any entity providing trading, custody, settlement, or execution infrastructure for digital-asset transactions in or affecting U.S. commerce.

(2) Foreign Adversary.—

The term “foreign adversary” means a foreign government or foreign non-government person designated by the Secretary of Commerce pursuant to 15 C.F.R. § 7.4(a).

No additional designation authority is created or implied by this section.

(3) Relevant Congressional Committees.—

The term “relevant congressional committees” means—

- (A) the Committees on Financial Services and Agriculture of the House of Representatives; and
- (B) the Committees on Banking, Housing, and Urban Affairs and Agriculture, Nutrition, and Forestry of the Senate.

(d) Rule of Construction.—

Nothing in this section shall be construed to—

- (1) authorize generalized surveillance of lawful domestic digital-asset activity;
- (2) permit bulk data collection absent individualized, evidence-based cause;
- (3) create presumptions of wrongdoing based solely on foreign domicile; or
- (4) expand agency jurisdiction beyond existing statutory authority.

SEC. 512. CONFORMING AMENDMENTS.

The GENIUS Act is amended as follows:

(1) AMENDMENT TO DEFINITIONS.—

Section 2 is amended by striking paragraph (7) and inserting the following:

“(7) DIGITAL ASSET SERVICE PROVIDER.—

The term ‘digital asset service provider’ means any person or entity that is registered, or required by law to be registered, with the Securities and Exchange Commission or the Commodity Futures Trading Commission.

The term shall not be construed to expand jurisdiction beyond existing statutory authority.

(2) AMENDMENTS TO SECTION 4(a).

(A) Replacement of Paragraph (3).

Paragraph (3) is struck and replaced with the following:

“(3) MONTHLY CERTIFICATION; EXAMINATION OF REPORTS BY REGISTERED PUBLIC ACCOUNTING FIRM.—

(A) EXAMINATION REQUIREMENT.—

Each permitted payment stablecoin issuer shall, on a monthly basis, cause the information contained in the prior month-end report required under paragraph (1)(C) to be examined by a registered public accounting firm.

Such examination shall—

- (i) be performed in accordance with attestation engagement standards issued or adopted by the primary Federal payment stablecoin regulator, or by the applicable State payment stablecoin regulator;
 - (ii) utilize assurance standards comparable to those promulgated by the Public Company Accounting Oversight Board; and
 - (iii) require full documentation, retention, and workpaper preservation sufficient to permit review by any Federal agency acting under existing statutory investigative authority.
- No alternative or industry-developed assurance framework may be used.

(B) OFFICER CERTIFICATION.—

The Chief Executive Officer and Chief Financial Officer of each permitted payment stablecoin issuer shall, on a monthly basis, submit a written certification to the appropriate regulator stating that, to the best of their knowledge and based on a reasonable internal inquiry—

- (i) the report does not contain any untrue statement of material fact;
- (ii) the report does not omit any material fact necessary to prevent the report from being misleading;
- (iii) the report fairly presents, in all material respects, the information required concerning reserves, redemption obligations, operational continuity, and risk exposures; and
- (iv) management has reviewed internal control results relevant to the report.

Such certifications shall constitute records of the issuer for all purposes of Federal investigative authority.

(C) CRIMINAL LIABILITY.—

Any person who knowingly submits, causes to be submitted, or acquiesces in the submission of a false certification under this paragraph shall be subject to the criminal penalties set forth in 18 U.S.C. § 1350(c).

No lesser scienter standard shall apply, and nothing in this paragraph shall preclude prosecution under any other applicable Federal criminal statute.

(D) INTERNAL CONTROL REQUIREMENTS.—

(i) CONTROL FRAMEWORK.—

Management of a permitted payment stablecoin issuer shall establish, implement, maintain, and document internal controls and procedures, appropriate to the size, complexity, and risk profile of the issuer, to ensure compliance with—

- paragraph (1);
- paragraph (2); and
- this paragraph (3).

Such controls shall include periodic testing, validation, and remediation processes.

The control framework shall be traceable to a regulator-approved standard and may not rely on substitute or substantially similar industry-developed practices.

(ii) ANNUAL ATTESTATION.—

Each permitted payment stablecoin issuer shall obtain an annual independent attestation report from a registered public accounting firm verifying management's assertions regarding the effectiveness of internal controls described in clause (i).

Such attestation shall—

- (A) utilize assurance standards approved by the applicable regulator;
- (B) document all identified deficiencies, their materiality, and remediation actions; and
- (C) be retained as a record available to Federal investigative authorities pursuant to existing statutory process.

No alternative, modified, or partial attestation methodology shall satisfy the requirements of this clause.”

(B) Replacement of Paragraph (12).

Paragraph (12) is struck and replaced with the following:

(12) LIMITATION ON NON-FINANCIAL COMPANY CONTROL.—

(A) PROHIBITION.

It shall be unlawful for any company that derives a majority of its revenue from non-financial activities to retain or acquire, directly or indirectly, control of any nonbank entity that is—

- (i) a Federal qualified payment stablecoin issuer; or
- (ii) a State qualified payment stablecoin issuer.

No ownership arrangement, interposed affiliate, subsidiary structure, trust arrangement, offshore vehicle, or special-purpose entity may be used to evade, obscure, or circumvent this limitation.

(B) DEFINITION OF FINANCIAL ACTIVITIES.

(i) IN GENERAL.

The term “financial activities” means —

- (I) any activity described in section 4(k) of the Bank Holding Company Act of 1956 (12 U.S.C. § 1843(k));
- (II) issuing, redeeming, custody, market-making, or reserve management of payment stablecoins;
- (III) providing electronic wallet or safekeeping services for stablecoins;
- (IV) any activity determined by the Board of Governors of the Federal Reserve System to constitute a financial activity pursuant to subparagraph (ii); and
- (V) any activity that is subject to the Bank Secrecy Act (31 U.S.C. § 5311 et seq.) and its implementing regulations, including customer due diligence, suspicious activity reporting, and sanctions compliance obligations.

No activity shall be deemed a financial activity unless the entity demonstrates ongoing compliance with all applicable AML/CFT, sanctions, and illicit-finance obligations.

(C) RULEMAKING; EVIDENTIARY STANDARD.

Any determination under subparagraph (B)(i)(IV) shall—

- (i) be made through formal rulemaking;
- (ii) be grounded in substantial, documented evidence;
- (iii) include a written finding that the activity does not materially increase systemic, illicit-finance, or consumer-protection risks; and
- (iv) be published in the Federal Register.

(D) ESTABLISHING ADDITIONAL FINANCIAL ACTIVITIES.

Not later than 180 days after the date of enactment of the CLARITY Act of 2025, the Board of Governors of the Federal Reserve System, in consultation with the Secretary of the Treasury, the Comptroller of the Currency, and the Attorney General of the United States, shall issue rules—

- (i) establishing a definitive list of additional financial activities, including those relating to digital-asset infrastructure, that qualify under subparagraph (B); and
- (ii) creating a streamlined, standardized petition process by which a nonbank entity may seek a determination under clause (i).

No such petition may be granted absent a written finding, published in the Federal Register, that the activity—

- (I) poses no unreasonable illicit-finance risk;
- (II) is consistent with statutory jurisdictional limits; and
- (III) does not undermine the safety, soundness, or integrity of the U.S. financial system.

SEC. 21. COMMODITY-BACKED PAYMENT STABLECOINS.

(a) FEDERAL PRIMACY IN MONETARY AND COMMODITY-DERIVED PAYMENT INSTRUMENTS.

Nothing in this Act shall be construed to authorize, recognize, or permit the establishment of State-level monetary, quasi-monetary, or commodity-denominated payment systems.

All regulatory, supervisory, and enforcement authority relating to commodity-backed payment stablecoins shall reside exclusively with:

- the Secretary of the Treasury,
- the Commodity Futures Trading Commission, and
- the Board of Governors of the Federal Reserve System,

acting within their respective statutory jurisdictions.

(b) RULE OF CONSTRUCTION — PROHIBITION ON STATE-LEVEL MONETARY FRAGMENTATION.

No provision of this Act shall be interpreted to—

1. authorize any State to charter or regulate a commodity-denominated payment instrument that functions as, resembles, or materially competes with the sovereign monetary system of the United States;
2. create, imply, or recognize “State commodity-backed payment stablecoin regulators”;

3. permit any State to approve, supervise, or license an issuer of a commodity-backed payment stablecoin; or
4. establish any framework that would enable State-derived instruments to substitute for, or impair, the uniform national monetary architecture.

(c) DEFINITIONS.

For purposes of this section:

(1) COMMODITY-BACKED PAYMENT STABLECOIN.

The term “commodity-backed payment stablecoin” means a digital asset that—

- (A) is designed solely for payments or settlement and not as an investment vehicle;
- (B) is denominated in a highly liquid, publicly traded, physical commodity meeting transparency and deliverability standards determined by the CFTC;
- (C) is issued only by an entity that—
 - (i) is subject to full Federal supervision exclusively under Treasury, the CFTC, and, where applicable, the Federal Reserve;
 - (ii) maintains legally enforceable conversion or redemption rights; and
 - (iii) custodies physical commodities exclusively with custodians meeting CFTC-approved standards; and
- (D) is not—
 - (i) a security;
 - (ii) a deposit;
 - (iii) a credit-union account; or
 - (iv) an interest in a commodity pool.

(2) COMMODITY-BACKED PAYMENT STABLECOIN ISSUER.

The term means an entity that—

- (A) issues such a stablecoin; and
- (B) is registered, supervised, and examined exclusively by Federal regulators with jurisdiction under this Act.

(3) PHYSICAL COMMODITY.

The term “physical commodity” means an exempt commodity capable of physical delivery, as defined in section 1a(21) of the Commodity Exchange Act.

(d) PRESERVATION OF FEDERAL AUTHORITY.

Nothing in this section shall be construed to—

1. limit, restrict, or impair the jurisdiction of the CFTC over commodity interests or commodity-linked instruments;
2. alter the monetary authorities of the Federal Reserve System;
3. constrain Treasury's authority over payment systems, illicit finance, or monetary stability; or
4. authorize any non-Federal regulator to supervise, approve, or recognize commodity-backed payment stablecoins in any capacity.

SEC. 22. PROTECTION OF INDIVIDUAL SELF-CUSTODY.

(a) Affirmation of Existing Rights.

Nothing in this Act shall be construed to abridge, limit, or impair the existing rights of a United States person, acting in an individual capacity, to:

(1) lawfully maintain, possess, and utilize hardware or software tools that enable the individual's own self-custody of digital assets; and

(2) engage in direct, peer-to-peer digital asset transactions for lawful personal purposes, subject only to:

(A) applicable Federal law, including sanctions administered pursuant to the International Emergency Economic Powers Act and other statutory authorities; and

(B) prohibitions on transactions involving property or interests in property that are blocked, sanctioned, or otherwise restricted under United States law.

(b) No Expansion of Regulatory Authority.

Nothing in this section shall be construed to—

(1) create, expand, or imply any new regulatory, supervisory, investigative, or enforcement authority for any Federal agency;

(2) diminish the authority of the United States to enforce laws relating to sanctions, illicit finance, money laundering, or terrorist financing; or

(3) alter the jurisdictional boundaries of any Federal regulator.

(b) LIMITATION OF APPLICATION.

This section—

(1) shall apply solely to individuals acting for their own personal use; and

(2) shall not apply to any person acting in a custodial, fiduciary, agency, or representative capacity for any other person.

(c) RULE OF CONSTRUCTION — PRESERVATION OF FEDERAL AUTHORITY.

Nothing in this section shall be construed to limit, impair, preempt, or otherwise affect the authority of the—

- Secretary of the Treasury,
- Board of Governors of the Federal Reserve System,
- Securities and Exchange Commission,
- Commodity Futures Trading Commission, or
- any primary Federal payment stablecoin regulator,

to conduct investigations, initiate enforcement actions, promulgate rules within existing statutory jurisdiction, or impose special measures pursuant to any applicable Federal law, including—

- (1) the Bank Secrecy Act;
- (2) section 9714 of the Combating Russian Money Laundering Act (31 U.S.C. 5318A note);
- (3) section 7213A of the Fentanyl Sanctions Act (21 U.S.C. 2313a); and
- (4) any other Federal statute relating to—
 - illicit finance,
 - money laundering,
 - terrorist financing, or
 - United States sanctions.

TITLE VI—AUTONOMOUS COMMODITY PRIMITIVE RECOGNITION AMENDMENT OF 2025

SECTION 601. SHORT TITLE.

This title may be cited as the “Autonomous Commodity Primitive Recognition Amendment of 2025” or the “ACPR Amendment.”

SEC. 602. DEFINITIONS.

(a) Autonomous Commodity Primitive (ACP).

For purposes of this Act and for all amendments made to—

- the Commodity Exchange Act;
- the Securities Act of 1933;
- the Securities Exchange Act of 1934; and
- the Uniform Commercial Code;

the term “Autonomous Commodity Primitive” means a digitally recorded document of title that meets *all* of the following requirements:

(1) Commodity Documentation Function.

An ACP shall identify, evidence, or memorialize ownership, custody, bailment, or beneficial interest in a commodity recognized under 7 U.S.C. § 1a(9), including—

- physical commodities,
 - agricultural commodities,
 - energy commodities,
 - mineral commodities, or
- any other enumerated commodity.

The ACP shall exist solely for commodity-record purposes and not for financial, investment, or speculative functions.

(2) Non-Discretionary Construction.

An ACP shall be non-managerial, non-discretionary, and non-modifiable, and shall not contain, embed, or permit any of the following:

- governance or voting rights;
- upgrade, parameter, or protocol-change authority;
- discretionary modification of operation;

- financial return, staking, yield, or revenue-sharing mechanisms;
- treasury operations, managerial controls, or value-manipulating functions.

(3) Electronic Embodiment Standard.

An ACP shall be embodied on a cryptographically secured ledger exclusively for:

- (A) evidencing the existence, quantity, grade, purity, or location of the underlying commodity;
- (B) transferring document-of-title rights or beneficial interest consistent with UCC Article 7;
- (C) verifying custody, provenance, or reserve status;
- (D) supporting auditability and compliance under the Bank Secrecy Act (31 U.S.C. § 5311 et seq.);
- (E) meeting evidentiary, recordkeeping, or chain-of-custody requirements under the Uniform Commercial Code.

No ancillary functionality beyond documentary recording is permitted.

(4) Absence of Investment Characteristics.

An ACP shall not:

- (A) generate an expectation of profit from the managerial, promotional, entrepreneurial, or technological efforts of any identifiable person, consistent with SEC v. W.J. Howey Co.;
- (B) function as a security, investment contract, note, or bond;
- (C) act as a vehicle for fundraising, capital formation, or speculative issuance;
- (D) create any economic rights beyond the documentary rights in the underlying commodity.

(5) Value-Derivation Constraint.

An ACP shall derive *all* economic value solely and exclusively from the underlying commodity, and not from:

- issuer conduct;
- managerial or protocol software updates;
- marketing, promotion, or entrepreneurial activity;
- discretionary manipulation of supply, demand, issuance, or functionality.

Any deviation from this constraint disqualifies the instrument from treatment as an ACP.

SECTION 603. CLASSIFICATION OF ACPs UNDER THE COMMODITY EXCHANGE ACT.

(a) ACPs as Commodity-Documentation Instruments.

For purposes of the Commodity Exchange Act and all other Federal statutes incorporating its definitions, an Autonomous Commodity Primitive (ACP) shall be classified solely as a

commodity-documentation instrument, functionally analogous to a warehouse receipt, bill of lading, or other document of title recognized under UCC Article 7.

An ACP shall not be deemed—

- (1) a “commodity” as defined in 7 U.S.C. § 1a(9);
- (2) a “digital commodity,” “digital asset,” or “digital commodity tradeable instrument” under any Federal law; or
- (3) a financial instrument, derivative, or commodity interest.

This classification reflects the ACP’s non-managerial, non-discretionary, and documentary-only construction.

(b) Preservation of Commodity Status of the Underlying.

Where an ACP evidences, memorializes, or transfers ownership or beneficial interest in a commodity enumerated under 7 U.S.C. § 1a(9), the underlying commodity retains its statutory classification *without modification*, regardless of the use of an ACP for—

- title transfer;
- custody verification;
- reserve attestation;
- provenance tracking; or
- other documentary functions.

Nothing in this subsection shall be construed to alter CFTC jurisdiction over the underlying commodity markets to the extent provided by law.

(c) Exclusion From “Security,” “Investment Contract,” and Related Terms.

An ACP shall not be treated as—

- a “security,”
- an “investment contract,”
- a “certificate of interest or participation,”
- a “note,”
- a “bond,”
- a “stock,”
- a “transferable share,” or
- any other instrument regulated under the Securities Act of 1933 or the Securities Exchange Act of 1934,

provided that all of the following conditions remain continuously satisfied:

1. Absence of Managerial Control.

The ACP shall contain no governance, discretionary authority, upgradeability, treasury functions, or managerial parameters, directly or indirectly.

2. **Absence of an Expectation of Profit.**
The ACP shall not, in form or substance, generate any reasonable expectation of profit arising from the managerial, promotional, entrepreneurial, or technological efforts of any identifiable person, consistent with SEC v. W.J. Howey Co., 328 U.S. 293 (1946).
3. **No Capital Formation or Fundraising Purpose.**
The ACP shall not be used to raise capital, solicit investment, facilitate speculation, or function as a fundraising mechanism.
4. **Pure Commodity-Documentation Function.**
The ACP shall remain functionally limited to documenting, evidencing, or transferring an interest in a pre-existing, independently valued commodity, with economic value derived solely from the underlying commodity, not from any conduct of an issuer or operator.
5. **No Rehypothecation or Synthetic Features.**
The ACP shall not embed leverage, synthetic exposure, yield, staking, revenue-sharing, or other financial-engineering mechanisms.

SECTION 604. TREATMENT OF ACPs UNDER FEDERAL RESERVE AND TREASURY AUTHORITIES.

(a) Monetary Collateral Recognition — Not Monetary Reserve Status.

(1) Documentary Collateral Instrument.

For purposes of all Treasury and Federal Reserve authorities, an Autonomous Commodity Primitive (ACP) shall be recognized solely as documentary evidence of underlying commodity collateral, and shall not be treated as a monetary reserve asset or any instrument bearing independent monetary value.

(2) Underlying Commodity as the Sole Reserve Asset.

The economic value reflected by an ACP shall be deemed to reside exclusively in the physical commodity documented by the ACP.

The ACP functions only as a digitally recorded document of title, and therefore may be used as documentary collateral within the meaning of:

- 31 U.S.C. § 5112 (reserve composition and collateralization standards);
- 31 U.S.C. § 5302 (Exchange Stabilization Fund collateral operations);
- 12 U.S.C. § 391 (custody and verification of Federal Reserve assets); and
- any successor statute governing collateral verification, title documentation, or custody of federally held commodities.

Nothing in this Act shall be construed to permit the treatment of an ACP itself as a reserve backing instrument or monetary asset.

(b) Auditability, Transparency, and BSA/AML Alignment.

An ACP shall qualify as a ledger-verified documentary audit instrument, limited to evidencing:

1. title, custody, and beneficial ownership of the underlying commodity;
2. reserve collateral verification;
3. BSA/AML provenance and chain-of-custody obligations under 31 U.S.C. § 5311 et seq.;
4. authenticity, non-fungibility, and evidentiary sufficiency under applicable recordkeeping standards, including UCC Article 7.

Such auditability pertains only to documentary accuracy of collateral and shall not be construed to create any monetary function or monetary-policy relevance for the ACP itself.

(c) Prohibition on Monetary Substitution or Monetary Policy Function.

Nothing in this Act shall be interpreted to authorize, imply, or permit the treatment of an ACP as:

- legal tender;
- currency or currency-equivalent;
- a medium of exchange;
- a monetary policy instrument;
- a monetary reserve asset; or
- any “monetary instrument” under 31 U.S.C. § 5103 or any related statute.

The ACP is non-monetary collateral only, and its existence shall have no bearing on:

- Federal Reserve monetary policy;
- money supply determinations;
- legal tender statutes; or
- the monetary powers of the United States under Article I, Section 8 of the Constitution.

SECTION 605. TREATMENT OF ACPS UNDER THE UNIFORM COMMERCIAL CODE ARTICLE 7.

(a) Harmonization With UCC Article 7 — Documentary Function Only.

An Autonomous Commodity Primitive (ACP) shall be treated as a *document of title* within the meaning of:

1. UCC §7-102 (definitions), and
2. UCC §7-105 (electronic documents of title),

provided that the ACP:

- (A) serves solely as a documentary record evidencing ownership, custody, bailment, or beneficial interest in a physical commodity;
- (B) satisfies evidentiary, control, and transfer-of-possession standards equivalent to those applicable to warehouse receipts, bills of lading, and other custodial instruments under Article 7;
- (C) contains no managerial, discretionary, or financial-return features that would alter its status as a non-negotiated document of title; and
- (D) meets electronic-control requirements consistent with UCC §7-106 and UCC §9-105 regarding “control” of electronic chattel paper, solely for the purposes of title transfer and custody verification.

For avoidance of doubt, an ACP shall not be interpreted or applied as an electronic payment instrument, monetary instrument, currency substitute, or bearer-form financial product.

(b) Negotiability and Transferability — Limited to Documentary Title.
An ACP shall be deemed:

1. Negotiable *only* where it satisfies the requirements of UCC §7-104—specifically including a clear statement that delivery or control of the ACP entitles the holder to the identified commodity, without embedding any financial-return or rights-bearing feature; and
2. Transferable under UCC §7-501, including electronic negotiation under UCC §7-106, provided that the transfer conveys documentary title only and does not:
 - (A) create or imply a securities interest;
 - (B) create or imply an investment contract under Howey or Reves;
 - (C) embed any expectation of profit derived from the efforts of others;
 - (D) create a fractionalized commodity interest;
 - (E) establish any financial, yield-generating, revenue-sharing, or governance rights; or
 - (F) transform the ACP into a financial instrument, payment device, monetary collateral instrument, or any instrument subject to the securities laws.

All value conveyed by an ACP must derive solely, mechanically, and exclusively from the physical commodity described therein, and not from software updates, managerial discretion, promotional efforts, or economic speculation.

(c) Preservation of Commodity-Documentation Doctrine.

Nothing in this section may be interpreted to:

- (1) expand the purpose or function of ACPs beyond documentary title and commodity-custody evidence;

- (2) convert ACPs into negotiable investment instruments under Article 8;
- (3) permit ACPs to be used as settlement assets, currency, or payment instruments;
- (4) authorize any form of programmable financial function, staking, yield, fee distribution, or economic activation;
- (5) supersede the Commodity Exchange Act, the Securities Act of 1933, the Securities Exchange Act of 1934, or Federal Reserve/Treasury monetary-policy authorities; or
- (6) create any inference that ACPs may serve as monetary instruments, collateral substitutes for money, or components of legal tender under 31 U.S.C. § 5103; or
- (7) restrict the use of ACPs as documentary title, custody, or provenance instruments for agricultural commodities, including livestock, feed, grain, or any USDA-regulated agricultural good, provided such use remains within the scope of Article 7 and does not constitute a payment or investment function.

(d) Interpretation Consistent With Federal Monetary-Collateral Doctrine.
For avoidance of doubt:

ACPs are documentary evidence of commodity interests, not monetary collateral, not central-bank reserve instruments, and not substitutes for monetary policy tools.
Their treatment under UCC Article 7 shall be construed consistently with the monetary-collateral doctrine established in section 604, ensuring that ACPs remain structurally incapable of:

- functioning as monetary instruments,
- transmitting monetary value,
- operating as a store of monetary purchasing power, or
- substituting for sovereign currency.

SECTION 606. LIMITATIONS AND SAFEGUARDS.

(a) AUTOMATIC LOSS OF ACP STATUS UPON INTRODUCTION OF MANAGERIAL FEATURES.

An instrument shall immediately and irrevocably lose its classification as an Autonomous Commodity Primitive if, at any time, it incorporates, enables, or permits—directly or indirectly—any of the following:

1. Governance or voting rights;
2. Upgrade authority or protocol-level discretion exercisable by any person or coordinated group;
3. Managerial, promotional, or entrepreneurial control of any kind; or
4. Financial-return, revenue-sharing, staking, yield-generation, or any mechanism designed to create profit independent of the underlying commodity.

Upon loss of status under this subsection, the instrument shall be subject to classification and enforcement under the Securities Act of 1933, the Securities Exchange Act of 1934, the Commodity Exchange Act, and all applicable federal statutes governing securities, derivatives, or investment contracts.

(b) CROSS-AGENCY ANTI-FRAUD AND ANTI-MANIPULATION ENFORCEMENT.

All ACP activity remains fully and concurrently subject to:

1. 7 U.S.C. § 9(1) (CFTC anti-manipulation authority);
2. 15 U.S.C. § 78j(b) and 17 C.F.R. § 240.10b-5 (SEC anti-fraud authority);
3. All otherwise applicable anti-fraud and anti-manipulation powers of the SEC and CFTC; and
4. 18 U.S.C. §§ 1343, 1348 (wire fraud and commodities fraud), enforceable by the Department of Justice.

Nothing in this subsection shall be construed to limit the authority of the Department of Justice, the Federal Reserve Board, or the United States Treasury to investigate or prosecute fraud, manipulation, misrepresentation, market-abuse schemes, or any other unlawful activity involving ACPs or the commodities they document.

(c) AML/BSA COMPLIANCE REQUIREMENTS.

ACP transfers, whether conducted by individuals or supervised entities, shall comply with all applicable obligations under:

1. 31 U.S.C. § 5311 et seq. (Bank Secrecy Act);
2. FinCEN regulations governing customer due diligence, beneficial-ownership verification, and risk-based compliance;
3. Recordkeeping and reporting obligations relating to:
 - provenance and chain-of-custody verification,
 - documentary integrity, and
 - suspicious activity reporting; and
4. Any additional requirements lawfully implemented by:
 - the Secretary of the Treasury,
 - the Federal Reserve Board,

- the Commodity Futures Trading Commission, or
- the Securities and Exchange Commission, consistent with existing statutory authority and without expanding jurisdiction beyond its present scope.

Nothing in this subsection shall be construed to treat ACPs as monetary instruments; their compliance obligations derive solely from their documentary, custodial, and provenance-verification functions and not from any monetary or exchange-medium status.

SECTION 607. RULEMAKING AUTHORITY.

(a) In General.

The Secretary of the Treasury, in consultation with the Commodity Futures Trading Commission, the Securities and Exchange Commission, and the Board of Governors of the Federal Reserve System, shall issue technical, interpretive, and evidentiary regulations necessary to implement this Title.

Such regulations shall:

(1) Define ACP Technical Standards.

Establish uniform federal standards for:

- ACP issuance, formatting, and lifecycle documentation;
- cryptographic verification requirements;
- evidentiary sufficiency for custody, provenance, and title transfer;
- compliance integration with 31 U.S.C. §5311 et seq. (AML/BSA).

(2) Preserve Commodity-Documentation Purpose.

Ensure that ACPs:

- remain limited to documentary representation of commodity interests;
- may not perform, embed, or simulate payment, settlement, monetary, or investment functions;
- remain non-discretionary and non-managerial instruments under federal law.

(3) Inter-Agency Harmonization.

Coordinate ACP treatment across Treasury, CFTC, SEC, and the Federal Reserve Board to:

- prevent misclassification under the Commodity Exchange Act, federal securities laws, or banking/monetary statutes;
- avoid regulatory fragmentation or overlapping jurisdictional claims;

- ensure consistency with monetary-policy sovereignty.

(4) Prevention of Misuse or Misclassification.

Implement safeguards preventing:

- use of ACPs as securities, investment contracts, derivatives, or monetary instruments;
- indirect circumvention of federal reserve, securities, commodities, or banking statutes;
- transformation of ACPs into programmable assets, yield instruments, or settlement media.

(5) Monetary-Collateral Doctrine Compliance.

Clarify that:

- ACPs may serve as documentary evidence of commodity collateral;
- ACPs shall not constitute monetary collateral, legal tender, currency substitutes, or reserve assets;
- ACPs may not be incorporated into any mechanism that would influence or alter Federal Reserve monetary operations.

(6) UCC Harmonization.

Facilitate alignment with:

- UCC Article 7 (documents of title, electronic documents of title);
- UCC §§7-105, 7-106 (control and transfer of electronic titles);
- state-level commercial law governing warehouse receipts, bills of lading, and agricultural/livestock documentation.

(7) Cross-Sector Integration (Agricultural, Energy, Mineral, Logistics).

Confirm that ACPs may be used as documentary evidence by federal and state agencies—including USDA, DOE, DOI, and DHS—for:

- commodity verification,
- livestock identification,
- chain-of-custody validation,
- logistics integrity,
provided such use remains exclusively documentary and non-monetary.

(b) No Expansion of Regulatory Authority.

Nothing in this section shall be construed to:

- expand jurisdiction of the Treasury, SEC, CFTC, Federal Reserve Board, or any other agency beyond existing statutory authority;
- authorize the regulation of ACPs as securities, commodities, derivatives, money, or monetary instruments;
- permit ACPs to function as vehicles for capital formation, investment, or monetary policy implementation.

(c) Rulemaking Standards.

All regulations issued under this section shall:

- be grounded in substantial evidence;
- undergo notice-and-comment rulemaking under 5 U.S.C. §553;
- include detailed findings explaining consistency with federal monetary sovereignty, the Commodity Exchange Act, federal securities laws, and the Uniform Commercial Code.

SECTION 608. CONSTITUTIONAL COMPLIANCE.

Nothing in this title may be construed to:

- (1) alter, amend, diminish, or reallocate Congress's exclusive constitutional authority over *money, coinage, and regulation of the value thereof* under Article I, Section 8, clauses 2 and 5;
- (2) modify, supplement, expand, or encroach upon the sovereign monetary authorities of the United States, including the powers vested in the Federal Reserve System under the Federal Reserve Act, or authorize any private, foreign, or non-sovereign entity to exercise monetary functions, issue monetary instruments, or influence monetary policy;
- (3) redefine, disturb, or blur the statutory boundary between commodities and securities under the Commodity Exchange Act, the Securities Act of 1933, or the Securities Exchange Act of 1934, including by permitting any ACP to acquire characteristics that would convert it into a security, derivative, or investment contract;
- (4) authorize, enable, or imply that any ACP may function as —
 - (A) *money*,
 - (B) *currency*,
 - (C) *legal tender*,
 - (D) *a settlement medium*,
 - (E) *a substitute for deposits*, or
 - (F) *a monetary collateral instrument* for purposes of 31 U.S.C. § 5103, the Federal Reserve Act, or any other statute governing sovereign monetary operations;

(5) confer implied preemption over State commercial law except as expressly harmonized with the Uniform Commercial Code, nor authorize States to create instruments that replicate, substitute for, or interfere with Federal monetary authority; or

(6) authorize any regulatory, judicial, or administrative interpretation that would expand ACP functionality beyond *documentary title*, *commodity-custody evidence*, and *non-monetary documentary purposes* expressly enumerated herein.

TITLE VII — Protection of Financial Privacy and Preservation of Sovereign Digital Currency Innovation

SEC. 701. SHORT TITLE.

This title may be cited as the “Preservation of Sovereign Digital Currency Innovation Act”.

SEC. 702. FUNCTIONAL SEPARATION BETWEEN RETAIL BANKING AND SOVEREIGN DIGITAL CURRENCY INFRASTRUCTURE

Functional Separation Between Retail Banking and Sovereign Digital Currency Infrastructure

“(18) (A) A Federal reserve bank may not—

1. directly or indirectly offer retail deposit, wallet, account, or custody services to any natural person, except pursuant to an Act of Congress that expressly:
 - (I) establishes statutory protections for financial privacy equivalent to, or greater than, existing constitutional and statutory protections applicable to physical currency and retail banking;
 - (II) prohibits surveillance, data retention, or transactional monitoring exceeding the limits recognized under the Fourth Amendment, relevant Supreme Court jurisprudence, and the Right to Financial Privacy Act;
 - (III) ensures parity between digital sovereign instruments and physical cash with respect to anonymity, non-programmability, and freedom from coercive or behavioral restrictions.
2. maintain, administer, or cause to be administered any retail account, wallet, or direct liability of the United States on behalf of a natural person, unless expressly authorized by such an Act of Congress.
3. issue, deploy, pilot, test, or cause to be issued any retail central bank digital currency—or any digital instrument that is the functional, technical, or operational equivalent of a retail CBDC under any name, label, or architecture—unless authorized by an Act of Congress that:
 - (I) preserves individual transaction autonomy,
 - (II) prohibits coercive or programmable conditions on lawful transactions, and

- (III) provides statutory guardrails preventing continuous government access, surveillance, or individualized monitoring of retail financial activity.

(B) Clarifying Permitted Activities

Nothing in subparagraph (A) shall be construed to prohibit—

1. the development or operation of wholesale or interbank digital settlement systems by the Board of Governors or any Federal reserve bank, including systems utilizing distributed ledger or related technologies, provided such systems are available exclusively to regulated financial institutions, the United States, or foreign sovereigns.
2. the issuance, support, or operation of asset-backed sovereign digital instruments, including Asset-Backed Digital Currencies (ABDCs), when used solely for:
 - wholesale settlement,
 - interbank operations,
 - cross-border sovereign transactions,
 - or any additional non-retail context expressly authorized by Act of Congress.
3. the modernization, digitization, upgrade, or replacement of existing Federal Reserve payment, settlement, or clearing infrastructure, provided that such activities do not constitute, enable, or function as a retail CBDC, directly or indirectly.

(C) Definitions

1. Retail Central Bank Digital Currency.
The term “retail central bank digital currency” means any digital form of sovereign liability issued or administered by the Board, the United States, or a Federal reserve bank that:
 - (I) is designed or structured for use by natural persons as a general-purpose medium of exchange or store of value;
 - (II) is recorded, held, or transferred through an account, wallet, or custodial arrangement directly maintained by, or under the continuous operational control of, the Board or a Federal reserve bank;
 - (III) enables, or could enable, real-time or ongoing individualized monitoring, profiling, behavioral analytics, or identity-linked financial tracking exceeding constitutional limits applicable to physical currency or conventional deposit-based systems.
2. Wholesale or Interbank Digital Settlement System.
The term means any sovereign or inter-institutional digital payment, clearing, or settlement system operated or supported by the Board or a Federal reserve bank that:

- (I) is accessible exclusively to regulated financial institutions, clearing entities, the United States, or foreign sovereigns; and
- (II) is not designed, structured, or offered as a retail payment mechanism for natural persons.

SEC. 703. PROHIBITION ON RETAIL SURVEILLANCE-BASED DIGITAL CURRENCY INSTRUMENTS

(19) Prohibition on Indirect Retail Surveillance Currency Issuance.—

(A) A Federal reserve bank may not indirectly issue, distribute, deploy, or facilitate the circulation of any retail-facing central bank digital currency through a financial institution, financial intermediary, or third party where such instrument is designed, structured, or reasonably likely to permit:

- (i) ongoing individualized monitoring of lawful personal transactions;
- (ii) real-time behavioral profiling beyond constitutionally authorized investigative activity;
- (iii) programmable restriction or conditioning of lawful private financial activity; or
- (iv) coercive, discriminatory, or non-statutory control over the lawful use of money.

(B) Law Enforcement Preservation.

Nothing in this paragraph, this section, or this title shall be construed to:

(i) restrict, impair, preempt, or otherwise limit the lawful investigative, analytic, or enforcement authority of—

- the Department of Justice;
- the Department of the Treasury (including FinCEN, OFAC, and TFFC);
- the Department of Homeland Security;
- the Federal Bureau of Investigation;
- the United States Secret Service;
- the Internal Revenue Service—Criminal Investigations Division; or
- any other Federal law enforcement agency acting pursuant to statutory authority;
- (ii) prohibit the use of blockchain analytics, public-ledger analysis, or other forensic tools applied to

- publicly available ledger information, or
- information obtained through lawful process; or

(iii) expand any constitutional or statutory privacy expectation beyond that applicable to physical cash or financial records held by third-party custodians.

(C) Digital Instruments Not Prohibited.

Nothing in this paragraph shall be construed to prohibit the authorization, development, issuance, or operation of sovereign digital financial instruments that—

- (i) are asset-backed or reserve-anchored;
- (ii) operate exclusively through regulated financial institutions;
- (iii) preserve constitutional and statutory privacy protections equivalent to physical currency and lawful deposit accounts;
- (iv) are not retail-facing central bank digital currencies; and

(v) are used solely for wholesale, interbank, sovereign-settlement, or Congressionally-authorized purposes.

(D) Definition.

For purposes of this paragraph, the term *retail-facing central bank digital currency* means any digital liability of the Federal Reserve System that—

- (i) is designed to be held directly or indirectly by natural persons for general-purpose payments;
- (ii) is recorded, transferred, or administered through an account, wallet, or custodial arrangement maintained by or under the operational control of the Board or a Federal reserve bank; and
- (iii) is designed, structured, or capable of enabling real-time individualized monitoring or programmable control beyond existing constitutional and statutory authorities.

SEC. 704. PRESERVATION OF SOVEREIGN MONETARY AUTHORITY AND DIGITAL CURRENCY DEVELOPMENT

(11) SOVEREIGN DIGITAL MONETARY AUTHORITY.—

(A) AFFIRMATION OF AUTHORITY.

The Board of Governors of the Federal Reserve System and the Federal Open Market Committee retain full and exclusive sovereign authority to research, test, develop, authorize, and implement digital monetary instruments—including Asset-Backed Digital Currencies (ABDCs)—solely for purposes of:

- (i) implementing monetary policy;
- (ii) maintaining domestic and international financial stability;
- (iii) preserving the global primacy of the United States dollar; and
- (iv) modernizing sovereign payment, clearing, and settlement infrastructure.

No provision of this title shall be construed to diminish, impair, or reallocate Congress’s constitutional authority over money and commerce under Article I, Section 8.

(B) PROHIBITION ON RETAIL SURVEILLANCE CURRENCY.

The Board of Governors of the Federal Reserve System may not issue, authorize, or direct the issuance of any retail-facing central bank digital currency—or any substantially equivalent instrument—designed, structured, or capable of enabling:

- (i) continuous or individualized transactional monitoring;
- (ii) behavioral profiling or economic coercion;
- (iii) identity-conditioned transaction approval; or
- (iv) programmability beyond constitutionally and statutorily authorized limits.

Nothing in this subparagraph shall be interpreted to restrict lawful investigative or national-security activities conducted pursuant to existing Federal statutes, including the Bank Secrecy Act, OFAC authorities, or Title 18 of the United States Code.

(C) PRIVACY REQUIREMENT.

Any sovereign digital monetary instrument authorized under this paragraph shall:

- (i) preserve constitutional privacy protections equivalent to those afforded to physical United States currency;

- (ii) operate without individualized behavioral conditions on lawful use; and
- (iii) maintain parity with established due-process, warrant, and minimization standards governing financial information.

(D) DEFINITIONS.

(i) ASSET-BACKED DIGITAL CURRENCY (ABDC).

The term “Asset-Backed Digital Currency” or “ABDC” means a sovereign digital monetary instrument that—

1. is issued, authorized, or administered solely by the Board of Governors of the Federal Reserve System, acting under its Article I-delegated sovereign monetary authority;
2. is directly or indirectly backed by publicly recognized sovereign assets, reserves, or balance-sheet resources of the United States, including but not limited to:
 - Treasury securities,
 - commodities legally held as sovereign reserves,
 - gold, or
 - other lawfully recognized reserve instruments;
3. is used exclusively for wholesale, interbank, institutional, or sovereign-settlement purposes, including—
 - monetary-policy implementation,
 - interbank clearing and settlement,
 - liquidity provisioning,
 - collateral operations, or
 - financial-stability mechanisms;
4. cannot be held, accessed, or controlled directly by natural persons and cannot serve as a general-purpose retail medium of exchange;
5. preserves privacy protections equivalent to those applicable to wholesale settlement systems, and does not permit individualized, behavioral, or transactional monitoring of natural persons; and
6. is not programmable in any manner that conditions, restricts, or influences lawful individual financial behavior, nor may it be deployed for retail surveillance or consumer-level control.

Nothing in this definition shall be construed to authorize an ABDC to function as a retail central bank digital currency.

(ii) RETAIL-FACING CENTRAL BANK DIGITAL CURRENCY.

The term “retail-facing central bank digital currency” means any digital form of sovereign monetary liability that—

1. is designed, structured, or intended for direct holding, custody, or use by natural persons as a general-purpose medium of exchange, store of value, or retail payment instrument;
2. is recorded, transferred, or administered through an account, wallet, ledger, or custodial arrangement—
 - maintained directly by the Federal Reserve System, or
 - under the continuous operational, supervisory, or technical control of the Federal Reserve System;
3. permits or enables governmental visibility, traceability, programmability, or behavioral influence over individual, natural-person financial activity beyond the authorities applicable to physical currency, commercial bank deposits, or existing statutory frameworks; and
4. poses a risk of enabling coercive, surveillance-based, or identity-conditioned financial restrictions inconsistent with constitutional protections, including but not limited to—
 - the Fourth Amendment,
 - the First Amendment,
 - statutory financial privacy rights, and
 - long-standing limitations on federal monitoring of lawful activity.

Nothing in this Act shall be construed to authorize the issuance, pilot, testing, indirect distribution, or functional equivalent of such a retail-facing central bank digital currency.

(iii) **DIGITAL LIABILITY — RULE OF CONSTRUCTION.**

The term “digital liability” shall not be construed to create or imply:

- (I) any private right of action against the Board of Governors;
- (II) any fiduciary duty owed by the United States to any individual;
- (III) any accounting treatment inconsistent with sovereign monetary authority; or
- (IV) any limitation on Congress’s plenary authority over issuance and control of United States currency.

(iv) **SOVEREIGN IMMUNITY PRESERVED.**

The use of the term “digital liability” is descriptive only and shall not be interpreted as a waiver of sovereign immunity.

SEC. 705. SENSE OF CONGRESS; PRESERVATION OF SOVEREIGN MONETARY AUTHORITY.

(1) Congress affirms that the Board of Governors of the Federal Reserve System, acting pursuant to existing statutory delegations under the Federal Reserve Act and consistent with Article I, Section 8 of the Constitution, possesses authority to research, test, pilot, and operationalize sovereign digital monetary instruments—including digital representations of the United States dollar—where such instruments are used exclusively for lawful monetary policy, interbank settlement, clearing, liquidity operations, or other wholesale sovereign functions.

(2) Congress further affirms that the modernization of sovereign money through digital form does not require additional enabling legislation so long as such modernization:

(A) preserves all constitutional protections applicable to physical United States currency, including Fourth Amendment privacy limits;

(B) does not create, establish, or operationalize a retail-facing central bank digital currency; and

(C) does not enable governmental monitoring, conditioning, or programmability of lawful individual financial activity.

(3) Congress recognizes that while Congress retains plenary authority over money, coinage, and value under Article I, Section 8, the execution and operational administration of sovereign monetary architecture—including the technical form of sovereign liabilities—resides within the delegated powers of the Federal Reserve System, subject to statutory limitations and constitutional constraints.

(4) Nothing in this Act shall be construed to impair, revoke, diminish, or otherwise limit the existing authority of the Board of Governors of the Federal Reserve System to conduct lawful sovereign monetary operations, including modernization of payment, settlement, or clearing systems, provided such operations do not establish or approximate a retail-facing central bank digital currency.

(5) This section shall be interpretive only, shall not confer or imply any private right of action, and shall not be construed to create fiduciary duties, enforceable expectations, or judicially reviewable claims against the United States, the Federal Reserve System, or any officer thereof.

Doctrinal Reflection — Interagency Integrity as a National-Security Safeguard

The constitutional structure of the United States is intentionally siloed. This is not inefficiency — *it is design.* The separation of authorities across agencies mirrors the separation of powers among the Executive, Legislative, and Judicial branches: each holds bounded jurisdiction, each checks and limits the others, and each prevents the concentration of discretionary authority that could imperil liberty or national stability. This architecture is itself a national-security control, a decentralized resilience mechanism that distributes responsibility, expertise, and decision-making to prevent single points of failure.

When proposed legislation collapses, merges, or ambiguously transfers statutory authority between agencies — particularly between regulators with different missions, cultures, and operational mandates — it unintentionally creates the very conditions adversaries seek to exploit.

This phenomenon is well-documented across foreign intelligence doctrines:

1. PRC Intelligence Frameworks

- **The China Threat** (official U.S. doctrine identification of PRC strategic intent)
- **Unrestricted Warfare** (超限战, *Chāoxiànzhàn*) — attacking an adversary’s systems by exploiting seams, gaps, and jurisdictional ambiguities
- **Three Warfares** (三种战法, *Sānzhǒng zhànǎ*) — psychological, media, and legal warfare designed to induce internal confusion and institutional disorientation

These doctrines explicitly recognize *bureaucratic incoherence* as a vulnerability.

2. Russian Intelligence Frameworks

- **Active Measures** (Активные мероприятия) — creating internal discord, exploiting legal gaps, and amplifying institutional misalignment
- **Information Confrontation** (Информационное противоборство) — targeting the decision-cycle and bureaucratic cohesion
- **The Kremlin Playbook** — identifying weaknesses in public trust and institutional alignment
- **The “Gerasimov Doctrine”** (controversial but useful analytically) — blending political, legal, and informational disruption to pre-condition a society for strategic advantage

Each framework seeks one outcome: **eroding internal coherence by turning complexity against itself.**

Doctrinal Conclusion

When Congress unintentionally drafts statutory text that co-mingles authority across separate agencies without clear jurisdictional boundaries, the result is not simply a legal defect — *it is a national-security vulnerability*. It produces:

- jurisdictional confusion,
- operational paralysis,
- increased attack surface for foreign adversaries, and
- long-term erosion of public trust in government competence and legitimacy.

This reflection is not a rebuke, but a gentle, constitutionally grounded reminder:

Interagency integrity is a national-security safeguard.

Clarity is protection.

Jurisdictional coherence is deterrence.

And maintaining the intended constitutional silos is a structural defense that adversaries cannot easily penetrate.

Novel Doctrinal Concepts

The conceptual foundations referenced herein concerning (1) *The Structural Silo Doctrine: A Constitutional Theory of Intra-Executive Separation and Statutory Boundary Integrity* and (2) *The Interagency Integrity Doctrine: A National-Security Framework for Statutory Clarity and Bureaucratic Coherence* represent newly articulated, pending doctrines authored by the present writer. Together, these works formalize two previously uncoded principles: first, that the siloed design of federal agencies functions as an intra-executive analogue to the constitutional separation of powers, and second, that statutory clarity and interagency boundary integrity operate as national-security instruments by reducing attack surface, preventing bureaucratic collapse, and mitigating the exploitation of jurisdictional seams by foreign intelligence services. Both doctrines are forthcoming in extended form and are referenced here solely to note their definitional significance to the analytical framework of the Doctrine of Anchored Decentralization.

Epilogue — The Cost of Hope

For many years, I walked through the decentralized finance community. I spoke at cryptocurrency conferences. I stood in countless AMAs. I authored books on systems that promised freedom, autonomy, and escape from broken financial architectures. I was present in both the euphoria of bull markets and the silence of collapse.

Yet what I witnessed was not greed. It was not rebellion.

It was hope.

People were not chasing speculation — *they were searching for stability*. They were searching for a future where their work meant something, where debt did not define them, and where their children would not inherit a system already decaying.

Across countries, languages, and cultures, the pattern never changed. The stories were different, but the need was identical:

Someone wanted to believe that something better was possible.

This Doctrine stands as a line *that cannot be erased from history*. Not because it is loud, but because it is anchored. It was not written to choose sides. It was written to remove the illusion that there were only sides to choose from.

If I were brought before Congress, I would say the same thing there that I say to the DeFi community:

There is a better way.

It exists.

And this is it.

Not for power. Not for narrative.

But so that hope finally rests on something that will not collapse beneath it — for you, your children, and the generations that follow.

Signed,

Nicolin Decker

December 1, 2025

Final Institutional Doctrinal Assessment — MIT Systems Architecture + Harvard Law Doctrine

With the completion of The Doctrine of Anchored Decentralization, the incorporation of Autonomous Commodity Primitives (ACPs) as the governing technical substrate, and the congressional adoption of the revised HR3633 framework, the structural foundations for a sovereign Asset-Backed Digital Currency (ABDC) are now complete.

When viewed collectively with the Foundational Works Establishing Competence, these components satisfy the full set of requirements recognized by leading institutions of constitutional law and systems engineering:

- (1) a coherent constitutional doctrine,
- (2) a statutory implementation pathway consistent with Article I, Section 8, and
- (3) an engineered, decentralized architecture capable of sovereign-scale monetary function without violating securities law, administrative limits, or federal jurisprudence.

From a legal perspective, the architecture satisfies the constraints imposed by the Constitution, Supreme Court precedent, and federal statutory regimes; from a systems-architecture perspective, it constitutes a complete and internally consistent design suitable for sovereign deployment.

Together, these works establish the first academically and legally validated framework through which the United States may implement a secure, compliant, and fully sovereign digital monetary system.

Respectfully submitted,
Nicolin R. Decker
December 1, 2025

Cover Letter for Federal Reserve Submission Portal

To:

Board of Governors of the Federal Reserve System
Public Comment Docket OP-1877

From:

Nicolin Decker
Independent Constitutional Scholar and Systems Architect

Re:

Request for Information and Comment on Reserve Bank Payment Account Prototype

Dear Members of the Board,

I respectfully submit the enclosed materials in response to the Board's Request for Information and Comment on the proposed Reserve Bank Payment Account prototype (Docket No. OP-1877).

This submission consists of three coordinated components:

1. **Public Comment (≤5,000 characters)** addressing the operational and constitutional posture of the Payment Account prototype;
2. **Constitutional Addendum (2–3 pages)** providing a structural analysis of Payment Accounts as sovereign-adjacent architecture; and
3. **Two companion doctrinal papers:**
 - *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity*; and
 - *The Doctrine of Anchored Decentralization: A Law for the Stateless Economy*.

Together, these materials are intended to support the Board's inquiry by articulating why the proposed Payment Account—if maintained as a bounded, settlement-only instrument—aligns with constitutional principles governing monetary authority, democratic accountability, and long-horizon institutional stability.

The doctrines are offered solely as analytical frameworks for consideration and cross-reference. They advocate neither expansion of eligibility nor alteration of statutory authority, but rather seek to clarify the constitutional logic that underwrites the Board's current design approach.

Thank you for the opportunity to contribute to this important inquiry. I submit these materials with respect for the Board's stewardship of the nation's monetary and payment infrastructure.

Respectfully,

Nicolin Decker

January 9, 2026

Constitutional Addendum to the Request for Information and Comment on the Reserve Bank Payment Account Prototype

Docket No. OP-1877

Submitted by:

Nicolin Decker

Independent Constitutional Scholar and Systems Architect

Companion Doctrines Submitted:

- *The Constitutional Doctrine of Monetary Closure: Elasticity, Institutional Memory, and National Continuity*
- *The Doctrine of Anchored Decentralization: A Law for the Stateless Economy*

I. Purpose of This Addendum

This Constitutional Addendum is submitted to assist the Board of Governors in evaluating the proposed Reserve Bank *Payment Account prototype* not only as an operational payment innovation, but as a *sovereign-adjacent monetary architecture* whose design implicates constitutional structure, democratic accountability, and long-horizon institutional continuity.

The addendum does not advocate for expansion of legal eligibility, nor does it propose operational changes beyond those already contemplated by the Board. Its purpose is narrower and structural: **to articulate the constitutional logic that explains why the Payment Account prototype—if properly bounded—strengthens rather than weakens the Federal Reserve’s constitutional posture.**

II. Payment Accounts as Sovereign-Adjacent Architecture

Payment systems are not neutral utilities. They determine *when obligations are discharged, when settlement is final, and when enforcement yields to closure*. These functions are inseparable from monetary authority as understood within the American constitutional order.

The Payment Account prototype correctly recognizes this reality by distinguishing *settlement access* from *monetary accommodation*. By design, Payment Accounts:

- Do not provide interest,

- Do not permit overdrafts or intraday credit,
- Do not allow discount window access,
- Are subject to overnight balance limits,
- Are restricted to payment and settlement services with automated controls.

These constraints are not merely prudential. They are *constitutional guardrails*. They prevent Payment Accounts from evolving—intentionally or inadvertently—into shadow reserve instruments or proto-monetary substitutes.

III. Architectural Sovereignty Contagion (ASC) and Preventive Design

The attached Doctrine of Monetary Closure identifies a long-horizon constitutional risk termed *Architectural Sovereignty Contagion (ASC)*: the gradual migration of sovereign-adjacent authority into systems that operate beyond electoral consent, legislative oversight, or institutional correction.

ASC is not illegality. It is *structural dilution*.

The Payment Account prototype, as proposed, functions as an *architectural immunization against ASC*, because:

1. **Authority does not migrate silently** – access is explicit, bounded, and conditional.
2. **Settlement is permitted without discretion** – prefunding and automated controls eliminate discretionary credit.
3. **Elasticity is excluded by design** – no accommodation authority exists within the account.
4. **Correction remains possible** – accounts are reviewable, revocable, and non-entrenching.

This design preserves the constitutional separation between:

- **Settlement facilitation** (permitted), and
- **Monetary accommodation** (reserved to accountable public institutions).

IV. Why Boundedness Is Constitutionally Essential

History demonstrates two symmetric constitutional failures:

- **Rigidity without accommodation**, which converts scarcity into coercion, and
- **Accommodation without accountability**, which converts discretion into unanswerable authority.

The Payment Account prototype avoids both precisely because it *does not attempt to accommodate*. It provides *closure*, not *elasticity*. That distinction preserves constitutional legitimacy.

So long as Payment Accounts:

- remain settlement-only,
- cannot accumulate reserve-like balances,
- cannot intermediate credit,
- and cannot persist beyond statutory or policy review,

they reinforce—not undermine—the Federal Reserve’s constitutional role.

V. Institutional Memory and Precedent Control

A central concern in constitutional monetary design is **precedent drift**—the normalization of provisional measures without formal reconsideration.

The Board’s proposal wisely anticipates this risk by:

- retaining Reserve Bank discretion,
- subjecting accounts to ongoing review,
- and proposing reporting separation from Master Accounts.

These features should be understood as *institutional memory safeguards*, ensuring that Payment Accounts do not harden into permanent authority without renewed justification.

VI. Conclusion: Payment Accounts as Constitutional Stewardship

The Payment Account prototype represents a constitutionally responsible response to payments innovation. It acknowledges technological change without surrendering democratic control; it permits efficiency without conferring discretion; and it expands access without expanding sovereignty.

In constitutional terms, this is not deregulation. It is *architectural stewardship*.

The attached doctrines are submitted to provide the Board with a principled framework for preserving that stewardship over time.

Respectfully submitted,

Nicolin Decker

January 9, 2026