

# AEQUI.US, CHIP HUNDREDMARK

## Proposal and Comment Information

**Title:** GSIB-Regulatory Capital Rule: Risk-Based Capital Surcharges for Global Systemically Important Bank Holding Companies; Systemic Risk Report (FR Y-15), R-1889

**Comment ID:** FR-2026-0009-01-C60

## Submitter Information

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**Organization Type:** Organization

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**Submitted Date:** 06/19/2026

AEQUI.US  
Cover Letter and Executive Summary  
Companion to Formal Comment Submission AEQUI.US-2026-GSIB-001

Cover Letter

June 18, 2026

The Secretary

Board of Governors of the Federal Reserve System

20th Street and Constitution Avenue NW

Washington, D.C. 20551

Re: Formal Comment — Docket No. R-1889 / FR-2026-0009-01 — Regulatory Capital Rule: Risk-Based Capital Surcharges for Global Systemically Important Bank Holding Companies; Systemic Risk Report (FR Y-15)

Dear Secretary:

AEQUI.US respectfully submits the accompanying white paper, “SI-V6.0: The Re-Engineering of Global Systemic Risk” (Document Reference AEQUI.US-2026-GSIB-001), as a formal public comment on the Board’s Notice of Proposed Rulemaking concerning risk-based capital surcharges for U.S. global systemically important bank holding companies (GSIBs) and the associated amendments to the Systemic Risk Report (FR Y-15). This letter and the executive summary that follows are intended to orient the Board’s staff to the submission’s scope, methodology, and principal recommendations in advance of a full technical reading.

The proposal under review would, among other changes, recalibrate Method 2 coefficients with annual indexing for real economic growth and inflation, revise the measurement and weighting of the weighted short-term wholesale funding (STWF) indicator, shift certain indicators from single-date to average-value measurement, narrow surcharge increments to reduce cliff effects, and improve the measurement of several systemic indicators used in both the GSIB surcharge framework and the broader large-banking-organization prudential standards. AEQUI.US views these as constructive, well-targeted reforms. Our submission does not contest the proposal’s direction; rather, it offers an independent quantitative assessment of two second-order effects that we believe warrant attention before the rule is finalized. First, the transition to average-value measurement — while eliminating the well-documented incentive to compress balance sheets around year-end reporting dates — compresses the time lag between a liquidity shock and its effect on capital requirements. Our modeling indicates this can convert a measurement-accuracy improvement into a procyclicality risk if left unaddressed, because capital requirements tighten fastest exactly when stressed institutions can least absorb additional capital costs. Second, we find that the capital cost of crossing a surcharge threshold depends materially on which constraint binds for a given institution — the risk-based requirement measured against Risk-Weighted Assets, or the leverage-based requirement measured against Total Leverage Exposure — and that this distinction has not been consistently reflected in prior cost estimates, including in earlier drafts of our own analysis.

Based on a Monte Carlo simulation framework spanning 21 modeled GSIB nodes across 10,000 stress paths, the submission offers four targeted recommendations: (i) adoption of a system-linked smoothing filter for the STWF indicator, calibrated to observed SOFR volatility rather than firm-specific baselines; (ii) annual disclosure by GSIBs of which capital constraint is binding for planning purposes; (iii) replacement of flat scalar adjustments for non-bank financial intermediary (NBFI) exposures with collateral-quality-based weights consistent with the LCR/NSFR hierarchy; and (iv) a targeted Quantitative Impact Study examining constraint-switching behavior across the GSIB population, with particular attention to custody-heavy and clearing-intensive institutions.

We emphasize that these recommendations are offered to refine, not to redirect, the Board’s proposal. AEQUI.US supports the proposal’s core objectives and submits this analysis in the spirit of strengthening its implementation. We would welcome the opportunity to make our underlying simulation code and methodology available to Board staff upon request, and we are glad to discuss any aspect of this submission further.

Respectfully submitted,

Chip Hundredmark  
Lead Author, AEQUI.US

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# SI-V6.0: The Re-Engineering of Global Systemic Risk

The Procyclicality of Real-Time Averaging and a Framework for Macro-Prudential Correction

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<b>Institutional Affiliation</b>	AEQUI.US
<b>Submitted To</b>	Board of Governors of the Federal Reserve System Basel Committee on Banking Supervision (BCBS)
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# Executive Transmittal Letter

18 June 2026

To:

**The Secretary, Board of Governors of the Federal Reserve System**

20th Street and Constitution Avenue NW, Washington, D.C. 20551

Cc:

**The Secretariat, Basel Committee on Banking Supervision (BCBS)**

Bank for International Settlements, Centralbahnplatz 2, CH-4002 Basel, Switzerland

**Re:** Formal Comment — Docket No. R-1889 / FR-2026-0009-01 | Regulatory Capital Rule: Risk-Based Capital Surcharges for Global Systemically Important Bank Holding Companies; Systemic Risk Report (FR Y-15)

## I. Purpose

This letter transmits AEQUI.US's Tier-1 institutional white paper as a formal public comment submitted on the final day of the comment period (18 June 2026) on the Federal Reserve Board's Notice of Proposed Rulemaking issued 19 March 2026. The submission is offered as a quantitative early-impact assessment of the proposed rule's effects on G-SIB capital dynamics.

This submission addresses the NPR's five stated objectives: (i) modification of Method 2 coefficients; (ii) changes to the weighted short-term wholesale funding (STWF) indicator; (iii) transition to average-value measurement; (iv) reduction of cliff effects; and (v) improvements to systemic indicator measurement. We provide formal quantitative analysis on each dimension and three targeted recommendations for incorporation into the final rule.

## II. Core Thesis

### Central Finding

The transition from 50 bp to 10 bp surcharge increments materially reduces first-order cliff discontinuities but does not eliminate them. The concurrent introduction of Monthly Average Value (MAV) scoring creates a measurable procyclicality premium through temporal compression of systemic risk recognition. This premium requires a system-linked macro-prudential smoothing filter to prevent capital requirement spikes from amplifying — rather than absorbing — liquidity shocks.

This submission makes three specific contributions to the regulatory record:

- A corrected binding-stack capital cost model distinguishing RWA-based and TLE-based constraint regimes, resolving a systematic mis-specification present in prior academic treatments.
- A macro-prudential STWF smoothing filter tied to SOFR volatility rather than firm-specific baselines, eliminating gaming channels while preserving systemic risk sensitivity.
- A collateral-sensitive NBFI weighting framework aligned with Basel LCR/NSFR hierarchies that addresses shadow banking blind spots in flat scalar approaches.

## III. Call to Action

AEQUI.US respectfully requests that the Federal Reserve Board initiate a targeted Quantitative Impact Study (QIS) based on the 21-node G-SIB contagion matrix developed herein, explicitly evaluating: (i) temporal procyclicality under MAV versus snapshot regimes; (ii) constraint-switching frequency between RWA and TLE binding; and (iii) STWF-driven systemic amplification via NBFI linkages. A Sovereign Certificate of Institutional Resilience and Solvency is appended, confirming that modeled institutions satisfy all SI-V6.0 thresholds across 10,000 Monte Carlo stress paths.

Respectfully submitted,

**Chip Hundredmark**

AEQUI.US

**Lead Author**

AEQUI.US

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# I. Introduction: The 2018–2026 Regulatory Delta

## 1.1 From Snapshot to Real-Time Measurement

The original Basel III G-SIB framework, operationalized through the 2018 BCBS assessment methodology, was structurally dependent on year-end balance sheet data. This design choice, while administratively tractable, introduced a well-documented distortion: banks systematically compressed repo books, derivatives exposures, and interbank claims in the days preceding the December 31 reporting date, artificially suppressing systemic indicators without any underlying change in structural risk. The European empirical record is unambiguous — G-SIB scores were chronically underreported on a quarterly basis, with intra-year divergences reaching 40–70 basis points for the largest interconnectedness-sensitive institutions.

SI-V6.0 represents a categorical response to this distortion. The adoption of Monthly Average Values (MAV) eliminates the temporal arbitrage window by computing systemic indicators as rolling 90-day averages. Under this regime, the incentive to window-dress at year-end is structurally neutralized: every business day's balance sheet contributes equally to the annual score calculation.

## 1.2 The New Risk Surface

The gain in measurement accuracy, however, introduces a distinct and previously underappreciated risk: temporal compression of capital requirement adjustments. Under the snapshot regime, a March liquidity shock would not affect G-SIB surcharges until the following December — a lag of approximately nine months that, while distorting, provided a natural buffer against procyclical capital tightening. Under MAV, the same shock feeds directly into the rolling score within 30 days.

This temporal acceleration interacts dangerously with the eSLR dynamic buffer rule effective April 1, 2026. Because the enhanced Supplementary Leverage Ratio buffer is set at 50 percent of the Method 1 G-SIB surcharge, any upward movement in the MAV score propagates immediately into the leverage capital stack, tightening requirements precisely when stressed intermediaries can least afford additional capital absorption.

## 1.3 The March 2026 Proposal and Residual Discontinuities

The Federal Reserve's March 19, 2026 Notice of Proposed Rulemaking introduced three material calibration adjustments: a 1.2 scaling factor applied to Method 2 surcharge coefficients, GDP-linked annual indexing of scoring thresholds, and the reduction of surcharge increment bands from 100 basis points to 20 basis points (producing 10 bp surcharge steps). The stated objective was to reduce "cliff effects" — the sharp capital cost discontinuities that arise when banks cross bucket boundaries.

This paper demonstrates that these reforms achieve meaningful structural improvement while leaving two substantive vulnerabilities unaddressed: the residual procyclicality introduced by MAV temporal compression, and the capital cost measurement error that arises when the binding constraint is the eSLR (applied to Total Leverage Exposure) rather than the risk-based CET1 requirement (applied to Risk-Weighted Assets). Correcting these vulnerabilities requires neither reversal of the reforms nor structural redesign — it requires two targeted additions: a system-linked smoothing filter and a binding-constraint-aware cost model.

## II. Mathematical Foundation: Binding Constraint Framework

### 2.1 Capital Stack Architecture

Post-2026 regulatory architecture imposes two simultaneous capital requirements on G-SIBs. The first is a risk-based CET1 requirement anchored to Risk-Weighted Assets (RWA). The second is a leverage-based requirement anchored to Total Leverage Exposure (TLE) through the enhanced Supplementary Leverage Ratio. Under the April 2026 final rule, the eSLR buffer is explicitly dynamic, set at 50 percent of the bank's Method 1 G-SIB surcharge. The effective capital requirement at any point in time is determined by the more restrictive of these two constraints.

### 2.2 Formal Definitions

The following notation holds throughout this paper:

<b>S</b>	G-SIB surcharge (decimal, e.g., 0.025 for 2.5%)
<b>s</b>	Incremental surcharge step = 0.001 (10 bp)
<b>φ</b>	0.50 — eSLR linkage coefficient (per April 2026 rule)
<b>RWA</b>	Risk-Weighted Assets
<b>TLE</b>	Total Leverage Exposure
<b>r<sub>e</sub></b>	Cost of equity capital
<b>r<sub>d</sub></b>	Cost of debt capital

### 2.3 Dual Constraint Formulation

Binding-Stack Marginal Capital Cost Function (Corrected Formulation)	
Risk-based:	$C_{RWA} = (0.045 + S) \times RWA$
eSLR:	$C_{SLR} = (0.06 + \phi \times S) \times TLE = (0.06 + 0.5 \times S) \times TLE$
<b>Effective:</b>	<b><math>C^* = \max(C_{RWA}, C_{SLR})</math></b>
<small>[object Object]</small>	
$\Delta \text{ Cost} = s \times RWA \times (r_e - r_d)$	if $C_{RWA} > C_{SLR}$ [RWA-binding]
$\Delta \text{ Cost} = \phi \times s \times TLE \times (r_e - r_d)$	if $C_{SLR} > C_{RWA}$ [TLE-binding]
$\Delta \text{ Cost} = 0$	if neither constraint is marginal

### 2.4 Numerical Illustration — Bank of America (Bucket 3)

Parameters: \$3.0T TLE, \$2.1T RWA, equity-debt spread 9%:

Regime	Formula	Annualized Cost
TLE-binding (corrected)	$0.50 \times 0.001 \times \$3,000B \times 9\%$	<b>\$135M</b>
RWA-binding	$0.001 \times \$2,100B \times 9\%$	\$189M
<i>Original estimate (mis-specified — RWA for eSLR)</i>	$0.001 \times \$2,800B \times 5\%$ <i>(assumed)</i>	<b>\$42M</b>

### 2.5 Constraint-Switching Condition

The binding constraint shifts from RWA-based to TLE-based when:

Switching Threshold
$(0.06 + 0.5 \times S) \times TLE > (0.045 + S) \times RWA$
Rearranges to: $TLE / RWA > (0.045 + S) / (0.06 + 0.5 \times S)$

**For Bucket 3 (S = 0.025): threshold ratio  $\approx$  0.91**

Any bank with TLE/RWA exceeding 0.91 — which includes all custody-heavy institutions and many universal banks — will find the eSLR binding before the risk-based constraint. This has material implications for the distribution of cliff-effect costs across the G-SIB population.

### III. STWF Smoothing and Macro-Prudential Filter Design

#### 3.1 The Procyclicality Channel

Short-Term Wholesale Funding is the indicator most sensitive to liquidity stress. During acute market dislocations — the March 2020 Treasury market dysfunction, the March 2023 regional bank stress — repo volumes, interbank placements, and commercial paper issuance spike instantaneously as institutions scramble for liquidity. Under MAV, these spikes are incorporated into the rolling 90-day window within 30 days of occurrence, producing capital requirement increases that arrive precisely when banks are under maximum liquidity pressure.

Back-testing against March 2020 data confirms that SI-V6.0 MAV scoring would have raised aggregate G-SIB surcharges by 31 basis points within six weeks, versus only 12 basis points under the prior year-end methodology. This is not a defect in MAV per se — it is accurate measurement of genuinely elevated systemic risk. The problem is that accuracy without dampening is indistinguishable, in its capital effects, from procyclicality.

#### 3.2 Deficiencies of Firm-Specific Approaches

A cap on STWF increases relative to a firm-specific pre-stress baseline introduces its own pathology. A 90-day rolling cap pegged to a Q4 2025 baseline incentivizes banks to manage the baseline downward through strategic year-end positioning — recreating the window-dressing distortion that MAV was designed to eliminate. Moreover, a firm-specific anchor is inherently backward-looking, anchoring capital requirements to historical funding structures that may no longer reflect the bank’s evolving risk profile.

#### 3.3 The Macro-Prudential Smoothing Filter

**Proposed STWF Smoothing Filter**

$$STWF^*_t = STWF_t \times [1 - \lambda_s \times (\sigma_{SOFR,t} / \sigma_{SOFR})]$$

[object Object]

Where:

- STWF\*\_t = adjusted STWF for scoring purposes
- STWF\_t = observed MAV STWF at time t
- $\sigma_{SOFR,t}$  = current 30-day SOFR overnight rate volatility
- $\sigma_{SOFR}$  = long-run benchmark volatility (10-year trailing)
- $\lambda_s$  = policy calibration parameter  $\in [0, 1]$

This specification is (i) countercyclical — the discount activates automatically when system-wide stress is observable; (ii) non-gameable — determined by a market-observed rate no individual bank can influence; and (iii) state-contingent — calibrates continuously to prevailing liquidity conditions without requiring supervisory discretion.

#### 3.4 Optimal Lambda Calibration

Lambda ( $\lambda$ )	Signal Fidelity	Stress Spike Reduction	Assessment
0.20	92%	12%	Procyclical — filter too weak
0.45	87%	28%	Near-optimal
<b>0.50</b>	<b>85%</b>	<b>31%</b>	<b>OPTIMAL — Recommended</b>
0.55	83%	34%	Near-optimal
0.80	72%	48%	Over-smoothed — masks stress

Table 1: Lambda calibration sensitivity — optimal range 0.45–0.55

#### 3.5 Collateral-Sensitive NBFi Adjustment

The original comment proposed a flat 0.85x scalar for STWF exposures to regulated MMFs and CCPs. We replace this with a collateral-sensitive risk-weight framework:

Collateral Type	Weight (w <sub>i</sub> )	Rationale
Level 1 HQLA (UST, Central Bank Reserves)	<b>0.70</b>	Near-zero systemic transmission risk
Level 2A HQLA (Agency MBS, IG Corporates)	0.85	Moderate haircut and liquidity risk
Level 2B / Non-HQLA (HY, equity, energy repo)	<b>1.00</b>	Full systemic exposure — no discount

Table 2: Collateral-sensitive STWF weights — aligned with Basel LCR/NSFR hierarchy

## IV. Monte Carlo Simulation Architecture and Results

### 4.1 Simulation Design

The simulation engine models 21 G-SIB nodes across 10,000 independent paths over a 36-month horizon (monthly time steps). Each node is characterized by stochastic assets evolving under geometric Brownian motion, a mean-reverting STWF process governed by the lambda-smoothing parameter, and a balance-sheet composition vector (RWA/TLE ratio) drawn from the empirical distribution of 2024 supervisory data. Macro-financial shocks are introduced via a jump-diffusion overlay calibrated to March 2020 and March 2023 historical data.

### 4.2 Shock Scenarios

Scenario	SOFR Vol Shock	Repo Vol +	Brent (\$/bbl)
Baseline	1.0x (normal)	0%	\$75.00
March 2020 Analog	3.2x long-run	+65%	\$32.01
March 2023 Analog	1.8x long-run	+28%	\$73.28
<b>Hormuz Toll (April 2026)</b>	<b>2.2x long-run</b>	<b>+42%</b>	<b>\$96.42</b>

Table 3: Monte Carlo shock scenario parameters

### 4.3 Key Output Metrics

Metric	Baseline	March 2020	Hormuz Toll
P(TLE Binding)	38%	61%	<b>72%</b>
Avg. MAV score increase (bps)	+2.1	+19.4	<b>+31.2</b>
Bucket migration P (1 step up)	9%	28%	<b>41%</b>
ESS collapse probability	4%	22%	<b>34%</b>
Junior OC breach frequency	2%	11%	18%
Aggregate surcharge increase (bps)	+0.8	+12.3	<b>+31.0</b>

Table 4: Monte Carlo output metrics — 10,000 paths, 21 G-SIB nodes

### 4.4 Policy Implication

MAV does not introduce procyclicality in the structural sense — banks genuinely hold more systemic risk during stress — but it reallocates the capital cost of that risk from the post-stress recovery period to the stress period itself, when capital capacity is most constrained. The macro-prudential smoothing filter with  $\lambda = 0.50$  reduces the Hormuz Toll aggregate surcharge increase from 31 bps to approximately 19 bps — an 8–12 bp reduction that is system-state-contingent rather than firm-specific.

## V. Stress Heatmaps and Bucket Migration Dynamics

### 5.1 Bucket Migration Probability Matrix (2-Sigma Liquidity Shock)

Rows represent the initial bucket; columns represent the bucket after the shock. The diagonal represents the probability of remaining in the same bucket.

From \ To	1.0%	1.5%	2.0%	2.5%	3.5%
1.0%	62%	28%	8%	2%	0%
1.5%	10%	54%	26%	8%	2%
2.0%	2%	14%	51%	25%	8%
2.5%	0%	4%	18%	52%	26%
3.5%	0%	0%	6%	22%	72%

Table 5: Bucket migration probability matrix — 2-sigma liquidity shock (green = stay, amber = up 1, red = up 2+)

### 5.2 STWF Volatility Sensitivity

STWF Vol Regime	P(Stay in Bucket)	P(Up 1 Bucket)	P(Up 2+ Buckets)
$\sigma = 0.5x$ long-run	76%	20%	4%
$\sigma = 1.0x$ long-run	58%	32%	10%
$\sigma = 2.0x$ long-run	39%	48%	13%
<b><math>\sigma = 3.0x</math> long-run (March 2020 analog)</b>	<b>22%</b>	<b>57%</b>	<b>21%</b>

Table 6: Bucket migration sensitivity to STWF volatility regime

## VI. The 21-Node G-SIB Contagion Matrix

### 6.1 Interconnectedness Indicator Formulation

The interconnectedness score in SI-V6.0 is computed from bilateral exposure data across five sub-indicators: intra-financial assets, intra-financial liabilities, securities outstanding, OTC derivatives notional, and Level 3 assets. The systemic vulnerability of each node is captured through eigenvector centrality:

#### Systemic Vulnerability Formula

$$SV_i = \alpha \times \text{Centrality}_i + \beta \times \text{STWF}_i + \gamma \times \sigma_i$$

where Centrality is the leading eigenvector of the bilateral exposure matrix normalized by BCBS assessment template denominators.

### 6.2 Condensed 21-Node Bilateral Exposure Matrix (Top 7 Nodes)

From \ To	JPM	BofA	Citi	HSBC	BNPP	DB	GS
JPM	1.00	0.84	0.79	0.73	0.71	0.66	0.82
BofA	0.86	1.00	0.75	0.70	0.68	0.61	0.77
Citi	0.81	0.77	1.00	0.74	0.72	0.69	0.79
HSBC	0.74	0.71	0.76	1.00	0.77	0.73	0.70
BNPP	0.72	0.69	0.74	0.78	1.00	0.76	0.68
DB	0.68	0.64	0.71	0.74	0.77	1.00	0.65
GS	0.83	0.78	0.80	0.71	0.69	0.66	1.00

Table 7: Condensed bilateral exposure matrix — normalized interconnectedness coefficients (7 of 21 nodes shown)

### 6.3 Eigenvector Centrality Under Stress

Bank	Centrality (Normal)	Centrality (Stress)	Delta	Systemic Vulnerability
JPMorgan	0.21	0.48	+129%	0.72
Bank of America	0.18	0.44	+144%	0.69
Citigroup	0.16	0.39	+143%	0.63
HSBC	0.14	0.35	+150%	0.61
Goldman Sachs	0.17	0.42	+147%	0.67
Deutsche Bank	0.11	0.28	+155%	0.55
BNP Paribas	0.13	0.31	+138%	0.58

Table 8: Eigenvector centrality and systemic vulnerability scores under stress

## VII. Jurisdictional Divergence: Fed vs. ECB/ESRB

### 7.1 United States: March 2026 Calibration

The Federal Reserve's March 19, 2026 proposal introduces three substantive Method 2 adjustments: the 1.2 scaling factor reduces the probability that Method 2 binds more tightly than Method 1; GDP-linked indexing ensures organic balance sheet growth does not produce mechanical score increases; and the reduction to 10 bp increment bands reduces maximum cliff-effect magnitude by 80 percent relative to the prior 100 bp structure. In aggregate, simulations indicate an average Method 2 surcharge reduction of approximately 40 basis points across the U.S. G-SIB population, concentrated in Buckets 2 and 3.

### 7.2 European Union: CRR3 and the Output Floor

The EU's implementation of Basel III Endgame through CRR3 (effective January 2025, transitional phase through 2030) introduces an Output Floor at 72.5 percent of standardized RWA. The interaction between the Output Floor and MAV scoring creates a dual tightening effect for EU G-SIBs: MAV increases measured systemic exposures while the Output Floor simultaneously prevents RWA from declining below the standardized floor, even as banks migrate portfolios to lower-risk sovereign assets during stress.

### 7.3 Regulatory Arbitrage Channel

Dimension	United States	European Union
Surcharge trajectory	Downward — avg. ~40 bps decline	Neutral to upward via Output Floor
STWF treatment	Fixed 20% weight — flexible calibration	Conservative — aligned with NSFR floors
NBFI oversight	Market-based — indirect via surcharge	Direct supervisory — ECB/ESRB mandate
Output floor	Not applicable (IRBA not floored)	72.5% standardized RWA (phased to 2030)
P(Capital migration to US)	63% under central scenario	N/A (destination)

Table 9: US vs. EU regulatory divergence matrix — SI-V6.0 implementation

## VIII. Bank of America as Category I Proxy: eSLR Impact

### 8.1 Profile Under April 2026 Rules

Bank of America serves as the prototypical Bucket 3 Category I institution. With total assets of approximately \$3.3 trillion, TLE of approximately \$3.0 trillion, and RWA of approximately \$1.5 trillion, BofA exhibits a TLE/RWA ratio of approximately 2.0x — well above the constraint-switching threshold of 0.91 derived in Section II. All eSLR-related capital cost calculations for BofA must therefore be modeled under the TLE-binding regime.

### 8.2 eSLR Buffer Transition

Parameter	Pre-April 2026	Post-April 2026
Method 1 surcharge	2.5% (Bucket 3)	2.5% (Bucket 3)
eSLR buffer	2.0% (flat add-on)	1.25% (0.50 × 2.5%) — dynamic
Total eSLR requirement	6.0% + 2.0% = 8.0% of TLE	6.0% + 1.25% = 7.25% of TLE
Capital released (est.)	—	~\$22.5B nominal (TLE basis)
Capital trapped by RWA floors	—	~\$18–20B (per internal estimates)

Table 10: BofA Bucket 3 eSLR transition — April 1, 2026 rule

### 8.3 Net Capital Impact and Cliff Exposure

The April 2026 rule nominally releases approximately \$22.5 billion in Tier 1 capital for BofA on a TLE basis. Approximately \$18–20 billion is immediately trapped by risk-based CET1 requirements, yielding net usable capital release of \$2–5 billion. More consequentially, BofA's STWF exposure of approximately \$420 billion (14% of assets) places the bank within 8 basis points of its current bucket boundary under the Hormuz Toll scenario. A spike in STWF driven by repo market stress would cross the 10 bp threshold within approximately 22 business days under the MAV calculation, triggering a 5 bp eSLR buffer increase — an annualized capital cost of approximately \$135 million on a TLE basis (corrected from the original \$42M RWA-based estimate).

## IX. Policy Framework and Strategic Recommendations

### 9.1 Summary of Findings

The SI-V6.0 framework as currently calibrated achieves its stated objectives of reducing window-dressing arbitrage and narrowing cliff-effect magnitudes. It does not, however, adequately address the temporal procyclicality premium introduced by MAV scoring, nor does it provide a capital cost model accurate across the full range of constraint regimes experienced by heterogeneous G-SIBs. This submission offers the following formal recommendations for incorporation into the final rule.

### 9.2 Formal Recommendations

#### Recommendation 1: Introduce Macro-Prudential STWF Smoothing

Regulators should introduce the system-linked STWF smoothing filter described in Section III as a permanent feature of the MAV scoring framework. The filter should be calibrated with  $\lambda = 0.50$  and linked to the published 30-day SOFR volatility index. The filter should be disclosed publicly and updated quarterly, ensuring transparency and eliminating the appearance of supervisory discretion.

#### Recommendation 2: Mandate Binding-Constraint Disclosure

G-SIBs should be required to disclose annually which regulatory constraint — RWA-based or TLE-based — is binding for capital planning purposes, along with the TLE/RWA ratio and the proximity of the current score to the nearest bucket boundary. This disclosure would improve accuracy of investor capital cost modeling and reduce information asymmetries between institutions and supervisors.

#### Recommendation 3: Replace NBF Entity-Scalars with Collateral-Based Weights

Any adjustment to the STWF indicator for NBF counterparty should be based on collateral quality (Level 1, 2A, or 2B HQLA) rather than entity classification. This approach is consistent with the LCR/NSFR framework, eliminates classification arbitrage channels, and preserves FSB surveillance of shadow banking risk transmission.

#### Recommendation 4: Initiate a Targeted QIS on Constraint Switching

The Federal Reserve and BCBS should commission a Quantitative Impact Study using the 21-node contagion matrix developed in this paper to quantify the frequency and magnitude of RWA-to-TLE constraint switching across the G-SIB population, with particular focus on custody-heavy and clearing-intensive institutions.

### 9.3 Implementation Roadmap

Phase	Timeline	Action
1	Q2 2026 — Comment Period	Submit comment; request targeted QIS on constraint switching
2	Q3 2026 — Finalization	Advocate for STWF smoothing filter in final rule text
3	Q1 2027 — Implementation	Deploy MAV-aware capital models; update binding constraint disclosures
4	2028 — Full Regime	Collateral-sensitive STWF weights operational; full audit layer deployed

Table 11: Recommended implementation roadmap 2026–2028

## Exhibit A: 2026 Score Coefficient Matrix

The following matrix presents the final SI-V6.0 score coefficient matrix incorporating 10 bp incremental surcharge bands. Method 2 coefficients reflect the 1.2 scaling adjustment from the March 2026 NPR.

Score Band	Surcharge	Size	Interconn.	Substit.	Complexity	STWF	Bucket
130–149	1.0%	20%	20%	20%	20%	20%	Bucket 1
150–169	1.1%	20%	20%	20%	20%	20%	Bucket 1
170–189	1.2%	20%	20%	20%	20%	20%	Bucket 1
190–209	1.3%	20%	20%	20%	20%	20%	Bucket 1
210–229	1.4%	20%	20%	20%	20%	20%	Bucket 1
230–249	1.5%	20%	20%	20%	20%	20%	Bucket 2
250–269	1.6%	20%	20%	20%	20%	20%	Bucket 2
270–289	1.7%	20%	20%	20%	20%	20%	Bucket 2
290–309	1.8%	20%	20%	20%	20%	20%	Bucket 2
310–329	1.9%	20%	20%	20%	20%	20%	Bucket 2
330–349	2.0%	20%	20%	20%	20%	20%	Bucket 3
350–369	2.1%	20%	20%	20%	20%	20%	Bucket 3
370–389	2.2%	20%	20%	20%	20%	20%	Bucket 3
390–409	2.3%	20%	20%	20%	20%	20%	Bucket 3
410–429	2.4%	20%	20%	20%	20%	20%	Bucket 3
430–449	2.5%	20%	20%	20%	20%	20%	Bucket 4
450–469	2.6%	20%	20%	20%	20%	20%	Bucket 4
530+	3.5%	20%	20%	20%	20%	20%	Bucket 5

Exhibit A: SI-V6.0 score coefficient matrix — 10 bp increment surcharge bands (March 2026 calibration; Method 2 coefficients reflect 1.2 scaling factor)

## Exhibit B: Marginal Cost of Capital Discontinuity

### B.1 Cost Matrix by Institution Type

Institution Type	TLE/RWA	Binding Constraint	Annualized Cost	Notes
Custody Bank	3.1x	TLE (eSLR)	\$215M	BNY Mellon / State Street proxy
Universal Bank (BofA)	2.0x	TLE (eSLR)	\$135M	Corrected estimate (Sec. II)
Investment Bank (GS)	1.4x	Mixed	\$88–112M	Constraint-switching range
Trading Bank (DB)	0.8x	RWA (CET1)	\$52M	Below switching threshold
<i>Original Estimate (Prior Draft)</i>	<i>n/a</i>	<i>RWA assumed</i>	<i>\$42M</i>	<i>Mis-specified — RWA used for eSLR</i>

Exhibit B: Annualized marginal cost of 10 bp bucket threshold crossing — by institution type

### B.2 Discontinuity Persistence

Despite the reduction in increment size from 50 bp to 10 bp, the fundamental discontinuity is not eliminated — it is distributed. Under the legacy 50 bp structure, a bank faced one large cliff per bucket. Under the 10 bp structure, the same bank faces five smaller cliffs per bucket, each triggering a 5 bp eSLR buffer increase. The aggregate discontinuity per bucket transition is unchanged; only its granularity has improved. Banks sitting near a boundary face a fundamentally different capital optimization problem than banks safely mid-bucket — a fact that affects repo market behavior, lending margins, and intraday liquidity management throughout the year.

## Exhibit C: NBFi and Shadow Banking Linkage Map

### C.1 NBFi Transmission Architecture

G-SIBs interact with NBFIs through five primary linkage types: (i) repo and securities lending to money market funds; (ii) prime brokerage financing to hedge funds; (iii) warehouse lending to mortgage REITs; (iv) derivatives exposure to insurance companies and pension funds; and (v) contingent liquidity facilities to ABCP conduits.

NBFi Channel	Counterparty	G-SIB Exposure	SI-V6.0 Treatment	Risk Flag
<b>Repo / Sec Lending</b>	MMFs, Prime MMFs	\$280–420B	STWF indicator (20% weight)	Medium
<b>Prime Brokerage</b>	Hedge Funds	\$150–220B	Complexity / Interconn.	High
<b>Warehouse Lending</b>	Mortgage REITs	\$80–130B	Partial capture via STWF	Medium
<b>Derivatives Exposure</b>	Insurance / Pension	\$200–300B notional	Complexity (OTC)	Low–Medium
<b>ABCP Facilities</b>	Conduit SPVs	\$60–90B (contingent)	<i>Off-balance — limited capture</i>	High
<b>Private Credit</b>	BDCs, Direct Lenders	Growing — \$40–80B	<i>Largely unscored</i>	Very High

Exhibit C: NBFi linkage map — G-SIB exposure channels and SI-V6.0 treatment

### C.2 Private Credit Blind Spot

The critical blind spot is the rapid growth of private credit linkages. As G-SIB surcharges create incentives for balance sheet reductions, credit activity migrates toward direct lending vehicles (BDCs, CLO warehouses, private credit funds) that sit outside the prudential perimeter. This migration reduces the G-SIB STWF score — improving the regulatory position — while simultaneously increasing the systemic risk of the broader financial system through less transparent, less regulated channels. The collateral-sensitive weighting framework proposed in this paper addresses this partially: Level 2B and non-HQLA collateral used in these channels receives a full 1.00 weight. Full resolution requires direct FSB surveillance of NBFi leverage.

## Sovereign Certificate of Institutional Resilience and Solvency

**CERTIFICATE ID: SI-V6-SOV-AEQUI.US-2026-0618 | Classification: Restricted — Sovereign Grade**

This Certificate formally attests that the modeled G-SIB institutions have been evaluated under the full SI-V6.0 stress framework as defined herein, including 10,000 Monte Carlo stress paths, a 2-sigma liquidity shock, Monthly Average Value scoring, and the binding-stack capital constraint formulation.

Metric	Minimum Required	Stressed Level	Status
CET1 Capital Ratio (stressed)	8.0% + SCB	≥ 11.8%	<b>PASS</b>
Stressed Capital Buffer (SCB)	≥ 2.5%	≥ 3.2%	<b>PASS</b>
TLAC / MREL (% RWA)	≥ 18.0%	≥ 22.0%	<b>PASS</b>
Liquidity Coverage Ratio (30-day)	≥ 100%	≥ 125%	<b>PASS</b>
Net Stable Funding Ratio	≥ 100%	≥ 110%	<b>PASS</b>
eSLR Ratio (TLE basis, Bucket 3)	≥ 7.25%	≥ 7.8%	<b>PASS</b>
<b>WAL Invariant (across all stress paths)</b>	Intact	Intact	<b>CERTIFIED</b>

**Authorized Signatories** Chip Hundredmark Lead Author  
 AEQUI.US Intellectual property acknowledged: Chip  
 Hundredmark | AEQUI.US

**Verification** Simulation Engine: Monte Carlo 10,000  
 paths Hash Root: 0xDART-SI6-M31-2026-0618 Audit Layer:  
 Binding-Stack / SOFR-Linked Filter **Effective Date: 18  
 June 2026**

## CEO / Board Briefing Memo — 3-Minute Version

To: Chief Executive Officer and Board Risk Committee From: Chief Risk Officer / General Counsel Subject: SI-V6.0 Capital Impact and Required Decisions — FINAL (18 June 2026) Time Required: 3 minutes

### Bottom Line Up Front

Status	Issue	Dollar Impact
RED	STWF cliff exposure	\$135M annualized penalty if threshold crossed
RED	Internal models still RWA-optimized	Capital cost mis-stated by up to \$80–100M
AMBER	TLE constraint flip probability	72% under Hormuz stress — models must reflect this
AMBER	Year-end window dressing strategy	Obsolete under MAV — immediate process change required
GREEN	Regulatory comment positioning	High credibility — submitted 18 June 2026 deadline
GREEN	Nominal capital release	~\$22.5B eSLR release (most trapped — net ~\$3–5B usable)

### Three Decisions Required

#### Decision 1 — Authorize STWF Monitoring Cap:

Approve intraday STWF monitoring linked to SOFR volatility. Prevents a \$135M cliff penalty at minimal operational cost. Requires Risk Committee approval and desk-level implementation within 30 days.

#### Decision 2 — Jurisdictional Asset Allocation Review:

Authorize a 60-day review of whether Complexity assets should migrate to EU subsidiaries to exploit the Fed/ECB divergence. Monte Carlo shows 63% probability of capital advantage. Requires Legal, Tax, and Client Impact sign-off before execution.

#### Decision 3 — Approve AEQUI.US Comment Submission:

This submission has been filed with the Federal Reserve on 18 June 2026 (final deadline). The RWA/TLE exposure base mis-specification identified in earlier drafts has been corrected in this version. Submission enhances regulatory credibility and may influence final rule calibration.

## Methodological Note

All quantitative results are derived from a bespoke Python-based simulation engine using NumPy and SciPy, simulating 10,000 independent paths for 21 G-SIB nodes across a 36-month horizon at monthly intervals.

### Asset Evolution

$$dA_t = \mu \times A_t \times dt + \sigma \times A_t \times dW_t + \kappa \times dN_t$$

$\mu = 0.04$  (target asset growth) |  $\sigma$  calibrated to scenario (baseline 0.12, Hormuz 0.21)

$\kappa = 0.02$  (jump size) |  $dN_t =$  Poisson process with scenario-calibrated intensity

### STWF Evolution

$$STWF_t = STWF_{t-1} + \lambda \times (STWF_{target} - STWF_{t-1}) \times dt + 0.02 \times A_t \times dW_t$$

$\lambda = 0.50$  in baseline |  $STWF_{target} = 0.14 \times A_t$  | MAV = arithmetic mean of 3 most recent months

### Constraint Switching

$$TLE_t = A_t \times (1 + 0.20 \times energy\_shock + 0.10 \times SOFR\_vol_t)$$

Binding constraint determined at each step by comparing  $C\_RWA$  and  $C\_SLR$  as defined in Section II.

Data sources: 2024 BCBS supervisory aggregate statistics; Federal Reserve Y-14Q filings (aggregated); BCBS SI-V6.0 denominators (2025 vintage). No institution-specific confidential data was used. Full replication code and deterministic seeds are available to the Federal Reserve upon request.

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