RECORD OF MEETING
Federal Advisory Council and Board of Governors

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<u>Item 1</u>: <u>Current Market Conditions</u>

What is the Council's view of the current condition of, and the outlook for, loan markets and financial markets generally? Has the Council observed any notable developments since its last meeting for loans in such categories as (a) small and medium-size enterprises, (b) commercial real estate, (c) construction, (d) corporations, (e) agriculture, (f) consumers, and (g) homes? Do Council members see economic developments in their regions that may not be apparent from the reported data or that may be early indications of trends that may not yet have become apparent in aggregated data?

General Outlook:

- There continues to be an overall positive outlook around the financial markets and growth in general. Employment, personal income, and consumer and small business optimism continue to show strength. However, the economy got off to a seasonally slow start as evidenced by Q1 GDP of 0.7% at an annual rate.
- Positive sentiment is not yet translating into significantly higher business demand. Business investment and sentiment is still sluggish as more clarity is being sought about tax reform, regulatory reform, and trade agreements. Other sources of uncertainty that are weighing on the markets include volatility in commodities prices, how future federal funds rate hikes could interact with the Federal Reserve's balance sheet roll-off, and geopolitical tensions.
- Consumer demand and lending continue on solid footing. However, the mortgage re-finance market has been impacted by higher rates, though this is expected to be offset somewhat by an increase in purchase volume.
- The competitive dynamics for corporate loans continue to remain elevated, which is putting pressure on loan terms and structures, as well as asset quality. Small business owners remain cautious and risk-averse, given the current political and economic uncertainty.
- Commercial real estate (CRE) markets continue to demonstrate good fundamentals, though growth is starting to show signs of moderating.

(a) Small and Medium-Size Enterprises

- Small business optimism appears to remain strong. While we are seeing some incremental increases in applications and originations, the optimism has not yet led to a material increase in economic activity and capital investment.
- Successful tax reform and reduced regulatory burden could raise confidence, capital investment, and loan demand.
- Council members had mixed views on loan demand. One Council member noted demand building into Q2, while another member expects activity to remain flat.

- Credit quality appears relatively stable.
- Competition remains fierce in the health care segment, particularly with physicians and dentists. Loan pricing in this segment has become extremely tight in several markets in the Northeast and Mid-Atlantic.

(b) Commercial Real Estate

- The CRE sector continues to benefit from solid fundamentals, including strong property markets, stable to increasing property values, active capital markets, and strong global capital flows into U.S. real estate.
- Transaction volumes slowed in Q1 of 2017, and activity is expected to be more moderate than in 2016. Construction costs are rising, and the market is becoming more cautious, particularly in the retail and multifamily segments.
- Asset quality remains stable. The combination of net operating income growth at historical highs and cap rates at historical lows has kept property valuations at peak levels. The long-term sustainability of an environment like this is a concern. However, loans are being originated with significant equity contributions, which will protect against the downside risk.
- Real estate private equity fundraising remains strong but is moving marginally below the levels raised over the last several years.
- The strong supply of multifamily development has begun to impact many big-city markets (e.g., New York, Washington, D.C., Boston, and San Francisco), forcing developers and banks to become more selective. As a result, loan pipelines for multifamily construction have declined year over year. That said, loan balances will remain high for the remainder of the year, given funding of existing loan commitments. While these fundamentals suggest sector moderation, rental demand still appears high, as macro-drivers, including employment and income growth, continue to be favorable. Council members also see the continued reduction in the homeownership rate, which is most impacted by millennials, having a positive influence on rental demand. We continue to closely watch vacancy and absorption rates and focus on borrowers with a history of sustainable management of properties.
- The retail sector contains many subtypes and quality classes, which are each impacted differently by market events. Bank and equity owners in general have broadly diversified exposure, positively impacting the credit outlook. We see bankruptcies and "big box" store closures continuing, as e-commerce and outdated retailer footprints result in strain on the industry. Growth of rent and NOI has decelerated recently. However, well-capitalized real estate investment trusts (REITs) control most of the regional-mall segment, where properties have diverse income streams from a variety of tenants, lessening the impact of single-store closures.

(c) Construction

- Construction of new retail and office developments continues to be tenant driven, with limited speculative activity in the marketplace.
- Financing demand for single-family tract development is tepid.
- One Council member cited a general decline in the willingness of banks to provide construction financing. One Council member also noted construction loan capacity is being reserved for the bank's best customers. There is an increasing focus on

underwriting standards, with banks requiring more equity, stronger recourse, and higher pricing.
- Pipelines for multifamily construction continue to generally look satisfactory, though they are moderating in select markets. The high end of the market remains strong, though concerns over affordability exist. One Council member noted that rising labor costs in the New York City market are starting to hurt project pipelines.

(d) Corporations

- Competitive market conditions remain intense across regions as both asset-hungry banks and nonbank institutions seek new client relationships. Many banks are choosing to expand in new markets to acquire new relationships. In addition, disintermediation continues in the mid-corporate space, in which insurance companies and private debt funds are primary competitors.
- At the same time we are seeing somewhat sluggish demand for new loans in the middle market, mid-corporate, and select industries (e.g., restaurant finance) with middle market corporate issuers adopting a "wait and see" approach. A regional bank Council member noted that new money lending and M&A lending are down 20-30% year over year given uncertainties around federal policy and its implications on budgets, but that asset based lending is a bright spot.
- This situation is creating an aggressive stance on credit structure and pricing to generate new client acquisition. One Council member's institution in the Midwest has elected not to move forward on some syndicated deals due to price, and other banks are reacting similarly. Single-name credit exposures are continuing to see pressure on pricing and terms, irrespective of customer size or risk profile. The one exception is the leveraged buyout market, where credit discipline remains strong.
- Another regional bank Council member cited strength in the automotive- and building-product sectors (though near cyclical peaks); weakness in technology, which has been impacted by a steep drop in M&A; and some softness in the health care sector as a result of the regulatory climate, which has caused uncertainty around borrower creditworthiness and confidence to pursue M&A.
- Reflecting the buoyancy of the credit markets, Council members are seeing more dividend recaps, distribution deals, and interest in ESOP financings.
- Repatriation of overseas cash could further adversely impact funding under senior bank credit facilities but could boost deposit levels.

(e) Agriculture

- Softer economic conditions in cereal grains, forage, the protein sector, and potatoes continue to put pressure on asset quality.
- Agricultural loan demand appears focused on renewing and extending existing production facilities, while loan repayments continue to decline as low commodity prices put pressure on demand. A Council member in the Southwest highlighted that demand for agricultural loans was down for a sixth consecutive year.
- Some Council members are seeing uncertainty in the grain sector, though protein producers are taking advantage of the run-up in cattle futures and locking in profitable contracts.

- Industry concerns continue to include disease, the increasing popularity of organic offerings, and consumer spending levels for dining out.

(f) Consumers

- Consumer loan demand has remained steady, though one Council member cited that overall demand has leveled off. There is strength in credit cards, student loans, and selective areas of unsecured lending, as customers look to consolidate credit card debt. There has been robust competitive activity to offer debt consolidation to consumers, as evidenced by recent consumer product launches from several bank and nonbank lenders.
- Home equity outstandings continue to decrease in the industry, but stabilization is expected as home values improve. Rising rates are also driving lower mortgage refinance activity. The year 2017 is starting strong, with growth in application volume from Q1 2016. One Council member anticipates home-price appreciation will drive an increase in cash-out, home improvement, and home equity lending over the next twelve months. This belief is not universally shared, as another Council member has seen a rise in short-term rates negatively impact HELOC application volume and expects the trend to continue through 2017.
- There is some evidence that after years of market growth, auto sales are beginning to taper. Competitor pricing for auto financing is aggressive in light of sluggish market demand, and the overall subprime market is showing signs of overheating a bit on credit, although prime credit is still performing very well. Used-car values are being closely watched, and it is anticipated that values will drop further.
- We continue to see strong asset quality in credit cards, though some institutions have recently referenced deterioration in their book, particularly for lower-FICO borrowers. No indications have emerged for a tipping point in credit card delinquencies.

(g) Homes

- The mortgage market, particularly refinancing, slowed significantly as rates rose in late 2016. The rate environment is likely to shift the mortgage loan environment from rate-term refinance-focused to purchase-focused in 2017.
- Rates have recently dropped to the lowest point since the run-up at the end of December, which speaks well for the spring/summer home-buying market and could possibly spark some increased refinance activity. Strong employment levels and rising personal incomes could further reinforce the spring/summer market.
- The expanded marketplace for loan offerings is showing a higher concentration of nonbank lending and emerging digital start-ups. A Council member continues to observe that millennials remain hesitant to enter the mortgage market due to work-life flexibility, aversion to additional debt, restricted access to credit (due to shorter credit histories), and increasing housing costs in major urban markets. Another Council member, however, indicated that the number of loans to first-time homebuyers is trending up.
- Council members see home prices rising strongly in many markets. One Council member’s institution is monitoring the potential for “overheating” housing markets in select cities, as housing indices approach or set an all-time high. In urban markets, “sale inventory" is tight and is constraining sales, holding back some activity and pressing values higher.

Do Council members see economic development in their regions that may not be apparent from the reported data or that may be early indications of trends that may not yet have become apparent in aggregated data?

- Council members continue to report a generally positive outlook for consumers and businesses, though political, economic, and regulatory uncertainty has been an overhang and could more materially impact business demand going forward.
- Several Council members have noted tightening in the multifamily and retail segments of CRE in select markets, market pressure in the auto sector due to slumping sales and a drop in used-car prices, and competitive pressures in commercial and industrial (C&I) lending. Council members' outlook on this topic varies the most, potentially due to regional differences, in CRE, housing, consumer lending, and agriculture.
- Most Council members indicate that overall loan demand is tracking modestly higher in the second quarter compared with the first quarter.

Special Topic 1a:

> **What factors have contributed to the recent slowdown in overall loan growth, and what new strategies and policies would the Council suggest to address this slowdown?**

The recent slowdown in loan growth can be attributed to several factors, including reduced client demand, increased competition, and a challenging regulatory landscape. Despite these factors, the Council believes there continues to be increased confidence among both consumers and businesses, but many are adopting a wait-and-see approach before taking action. It is the Council's view that increased clarity and direction from Washington on its pro-growth policies (i.e., tax and health care reform, infrastructure spending, regulatory relief) will return GDP closer to recent growth rates of 2-2.5%. If many such pro-growth policies are enacted, the Council would expect incremental GDP growth above 2.5%.

Factors Contributing to Slower Loan Growth

Reduced Client Demand

Low growth. GDP growth continues to lag historical norms, which impacts loan growth. 4Q16 real GDP growth was just 2.1%, and 1Q17 showed a further decline to approximately 0.7%.

Cautious client sentiment. With changes in Congress and a new administration, general client sentiment is optimistic about the potential for legislative and policy changes that could be constructive for the economy. There is not yet clarity on specifics and the timing around meaningful tax, trade, and regulatory reform, as well as infrastructure investment. Additionally, Congress will need to navigate partisan differences to effect changes. These uncertainties drive caution and inaction among clients. The higher interest rate environment may dampen loan activity.

Certain commercial and consumer sectors are facing headwinds. Auto growth is softening, with used-car values down 8% in February year over year and increased deterioration in subprime

auto loan portfolios. Mortgage lending is also an area for concern because of rising rates, more-stringent credit standards, and complex regulatory requirements crowding out market participants.

Within C&I, loan markets remain competitive for non-leveraged middle-market transactions that have solid credit scores, but the market is characterized by many lenders chasing few opportunities. Additionally, while loan syndications increased 50% in 1Q17 versus the prior year, much of that capital was placed with institutional sources (i.e., CLOs, pension funds, insurance companies) that are on track to exceed 2013 record capital levels. Further, new money and M&A syndications declined 26% over the same period, signifying a decline in capital entering the market. While C&I bank loan pipelines remain solid, customers indicate they are hesitant to close on loans in anticipation of policy and regulatory changes.

Competition

Capital markets. For many borrowers, the capital markets are also an attractive substitute for traditional bank lending. Global capital markets have demonstrated significant strength across product areas, as borrowers sought to "lock in" long-term fixed-rate debt, given a rising-rate outlook. For example, investment-grade and high-yield bond issuance rose from $389B to a record $470B (+21%) from 1Q16 to 1Q17.

Nonbank lenders. In many lending categories, including residential mortgage, small business and student lending, nonbank lenders make up a significant share of the overall market. For example, nonbanks now originate more than 50% of U.S. mortgages, versus ~10% seven years ago. Additionally, technology-driven nonbanks have demonstrated significant growth, with annual loan volumes of approximately $20B across consumer (nonmortgage) and small business lending.

In middle-market lending, business development companies (BDCs) and other nonbank lenders have increased their market share from 32% (1Q13) of mid-market transactions to approximately 70% today (Source: Thomson Reuters). BDCs and other nonbank lenders have several competitive advantages, including more-limited regulatory oversight and an ability to lend into highly leveraged financial structures, using large "hold" positions.

Heightened Regulation

The Council notes that, while each of the following points is not necessarily unique to the last two quarters, these conditions continue to put downward pressure on bank lending.

Regulation of the general economy. The U.S. economy experienced a significant increase in the amount and impact of new regulatory activity in the years following the financial crisis. Since 2010, the Code of Federal Regulations increased by 12,783 pages, a nearly 10% increase, and the number of "major rules" increased by more than 500 (costs associated with these major rules are estimated to exceed $125B annually).

Bank capital and liquidity rules. Capital and liquidity requirements continue to hinder banks' ability to lend. Additionally, studies have produced empirical evidence that credit availability by banks has been constrained by new financial regulations and supervisory practices, including the Federal Reserve's Comprehensive Capital Analysis and Review (CCAR). Examples include

CCAR macroeconomic supervisory stress scenarios with assumptions that are more severe than conditions observed during the 2007-09 financial crisis. Loans that are sensitive to the direction and magnitude of these assumptions, such as small business, mortgage, and credit cards, are impacted. Additionally, loans to riskier borrowers will result in higher capital requirements under CCAR, and this situation affects borrowers that lack alternative sources of funds.

Evolving regulatory guidance. In recent months, regulators appear to be interpreting certain long-standing regulatory guidance more conservatively. Examples include:

- In 4Q16, the Office of the Comptroller of the Currency (OCC) mandated that banks charge off to collateral value all consumer loans for which the borrower has filed Chapter 13. Previously, banks did not charge off these loans if they remained current.
- In 2014, regulators provided leveraged lending guidance specifying that full repayment of senior debt or at least 50% of total debt be amortized over 5-7 years. Regulators have applied the repayment of total debt threshold regardless of the level of senior debt in the capital stack. Banks tend to hold senior debt, and this has caused an adverse loan migration. Additionally, regulators are considering repayment from cash flow only, lessening the ability of banks to rely on other sources, such as collateral.

Policies to Address the Slowdown

Prioritize growth. National leaders balanced many priorities post-crisis that were not focused on or necessarily aligned with growth. The Federal Reserve's monetary policy was the most significant growth-oriented stimulus to the economy and, with this accommodation now abating, it is important for policymakers to take new actions to drive GDP growth. There has been much growth-oriented dialogue from our nation's policymakers following the 2016 election; banks and our clients are encouraged by this tone, but it will take more clarity and action to spur investment. Enactment of pro-growth policies is critical to restore America to a growth trajectory consistent with historical norms (3% GDP growth).

- **Tax reform:** The U.S. tax system is not competitive and is overly complex. The U.S. combined corporate statutory tax rate of 39% is the highest globally. In addition, federal tax rules span more than 75,000 pages. Reform can make U.S. companies more competitive globally and also promote growth.
- **Regulatory simplification:** Similar to taxes, our regulatory environment across the economy is overly burdensome and complex. Complying with the evolving and increasing regulatory burden requires American businesses to devote valuable resources (intellectual and financial) away from growth and towards compliance.
- **Infrastructure spending:** Infrastructure spending is not only required to spur growth but also to restore America's roads, utilities, public transportation, airports, etc. U.S. infrastructure has deteriorated due to years of subpar investment and political inaction. According to Boston Consulting Group, a $1trillion investment in infrastructure can create up to 3million jobs.

Implement capital and liquidity changes that promote bank lending. Such changes could include: tailoring capital and liquidity requirements to bank complexity and systemic risk; aligning stress test loss rates more closely to bank models; reducing bank operational-risk capital requirements; and modifying liquidity requirements.

Special Topic 1b:

> **What lender incentives would help make more credit available to small and medium-sized businesses?**

Both regulatory and financial incentives could help make more credit available to small and medium-sized businesses. The Council suggests, in addition to regulatory relief, various financial incentives, including the following, would encourage more small to mid-sized business lending:

1. Amend certain regulatory requirements, for example, by reducing risk weighting on small business loans or exempting small business loans from CCAR.
2. Improve/augment the Small Business Administration program to promote less bureaucracy and higher guarantor coverage, increasing capacity and an expansion of qualified lenders.
3. Incorporate incentives for growth by relaxing penalties at $10 and $50 billion thresholds.

The small number of new bank charters validates a challenged business model for most banks, particularly community banks. The Council recommends a review of the impact of limited new-charter activity on lending to small and medium-sized businesses.

Capital requirements and regulatory oversight are at an all-time high, which requires boards and senior management to focus less on providing credit and more on policies, procedures, and compliance. The proportion of management's time engaged in business and relationship development relative to compliance assessment and review has shifted markedly in recent years, in part at the expense of community outreach efforts. Constraining the CFPB mission to ensure consumer protection does not creep into small business lending would help incentivize lending.

Item 2: The Volcker Rule

> **Repeal of the Volcker Rule has been suggested as a means to reduce regulatory burden. What are the Council's views on the rule's repeal (either total or partial) and on any less-burdensome alternatives to the rule that would prevent banks from taking inappropriate speculative risks?**

The Council believes that the basic intent of the Volcker Rule – i.e., preventing banks from taking inappropriate speculative risks through proprietary trading and certain funds activities – is sensible. The Volcker Rule, as implemented, however, has had a negative impact on the ability of banking entities to serve customers by making markets and carrying out other forms of financial intermediation, as well as on a bank's ability to engage in risk management or asset-liability management – activities that do not resemble the speculative activities originally targeted by the Volcker Rule. The Volcker Rule, as implemented, also has restricted the ability of covered banking entities to provide asset management services and fund offerings to their clients.

While there exists substantial debate regarding a full repeal of the Volcker Rule, the Council believes the focus should be on significantly modifying the interagency regulations implementing the Volcker Rule. Recent research has begun to bear out concerns that the Volcker Rule is inhibiting economic growth and reducing market liquidity by constraining the ability of banking

groups to buy, sell, and underwrite securities, including corporate bonds that could help finance the operation of corporate customers.[1]

Specifically:

- The Volcker Rule is vague, overbroad, and unnecessarily complex, and it has produced unintended adverse consequences on the markets.
    - The approach used in the Volcker Rule has resulted in otherwise beneficial market intermediation, capital formation, risk mitigation, and other safety-and-soundness-enhancing activities, such as hedging, being restricted in a manner not justified by whatever benefits are achieved by prohibiting banking entities from engaging in proprietary trading.
- The line between proprietary trading and permissible market making has been exceedingly difficult to draw, complicated by the presumption that all trading activity is illegal unless proven otherwise.
- As a result, the Volcker Rule has chilled a vast amount of desirable market making, reducing the liquidity of the markets, especially the market for corporate debt instruments, and inhibiting capital formation.[2]
    - The narrow set of permissible market-making-related activities under the Volcker Rule and the prescriptive conditions for engaging in those activities have led many financial institutions to scale back their trading operations as well as their inventories of financial assets.
- Regional and smaller banks have only nominal amounts of trading assets that result from ordinary-course-of-business activities, including swaps and market-making activities. The Volcker Rule requires excessive documentation and oversight requirements for institutions that do not have significant proprietary trading assets.

The Council believes the best course of action is to reevaluate the Volcker Rule on a statutory and regulatory basis, consistent with the following:

- **Establish a Leading Regulator**: Designate a single regulator to be responsible for implementing, interpreting, and examining compliance with the Volcker Rule.
    - The Volcker Rule's complexity is exacerbated by the fact that it is administered by five co-equal regulatory agencies.
    - Each of these agencies has its own congressional mandate, history, interpretative approach, and an effective veto over any interpretation or simplification of the Volcker Rule that the others might agree on.
- **Define Proprietary Trading**: Redefine proprietary trading as short-term trading operated by a business unit that is wholly unrelated to financial intermediation, risk management, or asset-liability management.
    - Eliminate the Volcker Rule's presumption that *all* trading activity is illegal unless it can be proven to supervisory satisfaction, through detailed analysis and continuous monitoring, to meet a laundry list of specific criteria.

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[1] Jack Bao, Maureen O'Hara and Alex Zhou, *The Volcker Rule and Market-Making in Times of Stress*, Federal Reserve Finance and Economics Discussion Series Working Paper (Sept. 2016).
[2] Ibid.

- Clarify that risk-mitigating hedging may be done on a portfolio basis and that compliance is not required to be demonstrated on a transaction-by-transaction basis.

- **Enhance Liquidity**: Recalibrate the Volcker Rule to prohibit standalone proprietary trading (and proprietary trading through covered funds) without chilling legitimate activities to provide market liquidity, such as market making, consistent with traditional safety and soundness standards.
  - Remove constraints on capital-market liquidity by reforming or eliminating the RENTD (reasonably expected near-term demand) requirement in the market-making and underwriting exemptions.
- **Simplify Compliance**: Simplify the statute to prohibit only the types of short-term trading that the Volcker Rule was intended to prevent, without an intent-based standard, by establishing a framework that allows for safe harbors and provides banking organizations with the flexibility to tailor their risk management and compliance programs to their structure and activities.
  - This would resolve the inherent difficulty in implementing the existing intent-based statutory prohibition on proprietary trading, which has resulted in regulations that are overly complex, require an outsized compliance infrastructure and metrics, and often capture beneficial activities beyond the policy of the Volcker Rule.
- **Encourage Risk Management**: Encourage prudent risk management by simplifying the risk-mitigating hedging exemption.
- **Narrow Covered Funds**: Limit the definition of covered funds to section 3(c)(1) or 3(c)(7) funds that are principally engaged in proprietary trading, as redefined above, while limiting bailouts of sponsored covered funds.
  - This would preserve safety and soundness and the ability of banking entities to engage in beneficial and legitimate liquidity-providing and risk management activities.
  - Exempt traditional private banking family wealth investment vehicles from the covered fund provisions.
- **Exempt Small Entities**: Exempt community banks and other small banking entities from the Volcker Rule, which otherwise applies to banking entities regardless of size.
  - This alleviates the undue compliance burden on small banking entities.
- **Provide Guidance on "Super 23A" Provisions**:
  - Incorporate all the exemptions in Section 23A of the Federal Reserve Act and Regulation W to allow covered financial institutions to engage in certain transactions with sponsored or advised funds that pose little or no risk to the banking entity.
  - Clarify that credit exposures extended in the ordinary course of providing custody services are not subject to Super 23A restrictions.
- **Rely on Existing Capital and Liquidity Requirements:** Stringent capital and liquidity requirements implemented post-crisis and general safety-and-soundness standards address the risk issues that the Volcker Rule sought to capture.

Item 3: **Cyber Threat Environment**

> **What are the Council's recommendations on the following ways to combat the dynamic nature of cyber threats:**
> **(a) Improving risk assessments, measuring the current level of resiliency across the industry, and enhancing regulatory responses?**
> **(b) Fostering a greater level of public-private collaboration on cyber standards and expectations?**

(a) Improving risk assessments, measuring the current level of resiliency across the industry, and enhancing regulatory responses?

The Council's key recommendations include a harmonization of regulation around the framework of the National Institute of Standards and Technology (NIST), continued industry cooperation through public-private entities, and a full-industry and Treasury Department commitment to incident-response exercises.

The Council supports the concept of improving risk assessments, uniformity, and consistency not only across financial institutions but also in conjunction with other sectors. Public-private partnerships have led to significant progress in recent years, and the Council supports continuing these coordinated efforts.

- The public and private sectors participated in the formation of the NIST Cybersecurity Framework in 2013-14 and are engaging in workshops this summer to propose enhancements.
- The Council is also supportive of the current efforts led by the Financial Services Sector Coordinating Council (FSSCC): creation of a foundational, risk-based cybersecurity profile based on the NIST Cybersecurity Framework and development of the FSSCC Automated Cybersecurity Assessment Tool, which was created to help institutions of all sizes collect and score their responses to the FFIEC's Cybersecurity Assessment Tool.
- Incident-response exercises previously held in conjunction with the Treasury Department (Hamilton Series) were valuable in measuring the current level of industry resiliency. The Council encourages the continuation of these exercises with increased participation as part of a multi-tiered (national, state, local) program. Collaborative development between the private and public sectors will ensure exercises achieve the appropriate resilience while avoiding exercise fatigue.
- Information sharing coordinated through the Financial Services Information Sharing and Analysis Center (FS-ISAC) helped financial institutions limit harm from distributed denial of service (DDoS) attacks. The FS-ISAC is moving forward on several initiatives, including: enhancing cross-sector information sharing; expanding sector cybersecurity exercises; and administering Sheltered Harbor, a resiliency initiative designed to allow institutions to support each other through the provision of depository and other services to the extent an institution is incapacitated.

Past challenges to addressing the dynamic nature of cyber threats have largely resulted from the issuance of varied frameworks, rules, and guidance from various regulatory agencies and states in an attempt to improve cybersecurity and resilience. Harmonization of regulation, underpinned by

a set of security and resiliency principles and risk-based measures, will allow energies to be expended more on tangible risk reduction and less on risk administration.

Improving Risk Assessments

- Agree to and articulate standard objectives and the purpose of quantitative risk-assessment methods, which will enable a transparent understanding of risk across institutions, including internal and external dependencies.
- Regulatory harmonization is critical to increased visibility and the creation of a common view (or language) that improves the quality of risk assessments, well-understood metrics, and the resilience of the sector.
- Reevaluate appropriate timing of risk assessments. While annual risk assessments are often used for longer-term planning activities, an increased frequency of "light weight" activities should be considered.

Measuring Current Level of Resiliency

- Reliable measures describing the resilience of the industry have been elusive, largely due to the multiple standards and inconsistent approaches followed for cybersecurity.
- Regulatory standards should take a risk-based approach to achieve the dual benefits of establishing a core framework that can be used to develop common measures, while also embracing the important differences among institutions that can be customized to maximize cybersecurity resilience.
- Technology advancement and innovation, including advances in the use of artificial intelligence, robotics, and automation, will play a critical role in enhancing cybersecurity resilience.

Enhancing Regulatory Responses

- Regulatory responses should strive for consistency and simplification. Managing compliance with various state laws can be overwhelming and complicated. Compliance with these laws would be more effective if regulated at the federal level only.
- The cybersecurity response should be considered from a systemic, sector-wide perspective expressed in flexible objectives and risk-based principles rather than as a prescription for the activities of individual firms.
- Regulatory responses may also benefit from ensuring the responsibilities of all parties are considered, including businesses, customers, and the Treasury Department, in addition to the financial industry.

(b) Fostering a greater level of public-private collaboration on cyber standards and expectations?

- The financial industry has a variety of conduits for government and private industry collaboration. These include the Joint Trades Association Cybersecurity Summit, a proposed CEO Council, and the recently formed Financial Systemic Resilience and Analysis Center (FSARC), started by eight systemically important firms to address operational resilience and analysis. In addition, the FSSCC and FS-ISAC are key coordinating bodies.
- To coordinate and focus the engagement between CEOs and principals of the Financial and Banking Information Infrastructure Committee, a CEO Council was proposed during a joint executive meeting held at the White House in October 2016. It would serve to consolidate

discussions on cybersecurity and resiliency and provide leadership with a forum to discuss the complex issues facing the nation. The Council also recognizes the importance for government to choose the conduit that best suits its needs.
- The Council: (1) supports the ongoing partnership and collaborative dialogue that exists to achieve the shared goals of managing cybersecurity risks; and (2) encourages collaboration opportunities outside of traditional rulemaking and across sectors, given the shared interconnectedness and dependencies of the public and private institutions involved.
- U.S. regulators should also approach enhancements to cybersecurity regulation with a global view, realizing that U.S.-based institutions are often regulated by other countries that commonly are reluctant to adopt U.S. regulatory standards.

Item 4: Delivery Channels for Bank Services:

> **In the Council's view, what are the considerations prompting banks to transition from traditional "brick and mortar" branches to technologically advanced channels for delivering their services? What are the implications of this transition for the banking industry, consumers, and regulators?**

Summation:
From running errands, hailing a cab, streaming movies, and ordering just about anything, consumers have come to expect, from across a myriad of industries, a quick and easy experience underpinned by the latest technological advances. The banking industry is no exception, and Council members have seen development and implementation of digital capabilities to meet consumer needs and expectations. For their everyday banking needs, consumers like simplicity and self-sufficiency. However, when it comes to critical life events, whether they are planned (saving for education or retirement) or unplanned (a death in family), people currently prefer a personal, face-to-face interaction. Advancements in both digital channels and financial centers provide the potential for greater depth of interactions and relationships, expanded service coverage and inclusion, and cost efficiencies. The regulatory environment must similarly evolve to ensure firms have adopted appropriate risk-management and corporate governance practices.

Implications for the Banking Industry:
Digitization has transformed the manner in which banks interact with their customers. Consumers increasingly utilize digital channels for transactions, payments, and investing, with further industry advances imminent due to the continued adoption of artificial intelligence. Council members report that deposits occurring in banking centers have fallen as a percent of total deposits. The reductions have been significant over the last five years. Council members have experienced mobile banking users significantly increasing usage with mobile logins and mobile sales capabilities.

The dramatic and rapid consumer shift to digital has provided an opportunity for banks to reinvent financial centers and ATM networks, with the goal of integrated physical and digital platforms that allow customers to seamlessly bank in a manner that is most convenient for them, driving client satisfaction and efficiency. Digital capabilities are also essential to a high-tech/high-touch model. Enhancing digital competencies will assist in creating capacity for the high-touch interactions, which allow banking representatives to be there when it matters most for clients.

Financial centers historically were transaction-focused. Council members' staffing models from a decade ago had higher numbers of employees, the vast majority of whom were transaction tellers or similar employees. Council members are transforming financial centers to leverage technology to create more valuable client interactions with less focus on transactions and far more on building relationships, understanding client needs through more meaningful value propositions, and providing the best experience possible. The implications for employment levels at banking companies are clear: fewer employees overall, with higher skills and compensation.

As multiple Council members note, embracing digitization allows firms to improve automation, maximize customer satisfaction, and ultimately drive down costs. Through these savings, banks can invest in new technology, renovate financial centers, and add additional client representatives to ensure a coverage model that efficiently covers an entire market, from complex client sales and service needs to simple, convenient everyday banking. Additionally, digitization allows for more data than ever to be at our fingertips. Through big data analytics, banks are able to gain a greater understanding of their clients, resulting in customized offerings and tailored services.

As more clients adopt digital as their primary channel, there is the ever-present threat of banks being disintermediated from their clients, as capabilities advance and barriers to entry diminish. This currently is most significant in the payment space, investment platforms, online aggregation sites, and to a lesser extent, lending (personal, small business, and mortgage). Firms' continued investment in digital, including expanded solutions (e.g., launch of new online products, enhanced P2P capabilities, and tailored apps) and integrated offerings that deepen relationships, should help to create a sustainable advantage in an increasingly competitive space. However, there is often no substitute for personal interaction. Banks must continue to offer and enhance their face-to-face capabilities to build and maintain trusting relationships with clients.

Financial institutions slow to adopt digital offerings are likely to be disadvantaged in the long term. As multiple Council members note, the costs of driving change are substantial. This could lead to industry consolidation or more widespread partnership with financial technology ("FinTech") companies and other third-party providers.

Implications for Consumers:
As multiple Council members note, consumer expectations about experience and availability are being driven by other industries. Banking has responded by implementing digital capabilities. At the touch of a thumbprint, a customer can open an account, deposit money, transfer/pay, withdraw from ATMs, make an appointment with a specialist in a financial center, or go straight to a contact center without having to re-authenticate. Cybersecurity is an ever-present concern, but digitization should continue to enhance client security as technology becomes more sophisticated, affording clients more confidence in communications, products, and services.

By liberating basic banking needs from the traditional "brick and mortar" branch network, firms are able to promote financial inclusion by expanding services to the underserved. For example, all of the online and mobile banking functionality provided by one Council member is available in Spanish. Council members note they are able to provide more clients with convenient access to financial services and guidance through more highly automated centers, which offer advanced self-service functionality and leverage remote video to connect clients with bank representatives.

A demographic shift is also accelerating the adoption of automation. Millennials, a population of approximately 80 million with the majority of their financial lives still ahead of them, represented more than half of one Council member's new consumer banking clients last year and are a driving force in the member's mobile banking adoption.

Firms must engage in a balancing act when embracing technological innovation. To be successful, a firm must ensure the timing is right when balancing changing client behaviors, automation, and cost reduction, in order for clients to adopt new technology and for a firm to achieve its goals. While millennials are a driving force behind digitization, firms should remain mindful that other individuals in varying demographics might require more time and understanding to adopt automation. Council members continue to invest in and maintain financial centers to cover local markets, with all reporting substantial portions of their financial centers in low-to-moderate income neighborhoods.

Implications for Regulators:
Firms must continue to put in place risk-management and corporate governance procedures necessary to manage emerging technology offerings and usage. Whether it be biometrics (voice, facial, or fingerprint recognition), artificial intelligence (chat bots, automated investing, trusted and predictive engagements), contactless interactions (wearable point of sale), or social media integration, there is continuous development of new technologies. The OCC provided a meaningful framework in which banks can understand and evaluate innovative products, services, and processes in its recent white paper, "Supporting Responsible Innovation in the Federal Banking System."

A related, evolving trend is the extent to which some of these technological innovations are emerging from FinTech companies. These companies have been lightly regulated, attracting many new entrants. Regulators are addressing this dynamic, most recently with the OCC's publication in December 2016 of a white paper discussing the possible granting of special-purpose national bank charters to FinTech companies. Council members strongly endorse the stance that all entities supplying bank-like services must fulfill the duties imposed by financial statutes and regulations.

Maintaining the highest quality cybersecurity, customer data protection, fraud identification, and vendor and customer due diligence processes remains the Council members' collective priority, with the intent of providing assurance to customers, regulators, and shareholders that banks can help to navigate an increasingly digitized world in a way that balances customer security with convenience and capability.

In addition, Council members note that traditional rules and regulations regarding lending and investment in communities, prominently those implementing the Community Reinvestment Act, need to be revised, given the ability to provide strong products and services remotely.

Item 5: Productivity

The rate of productivity growth (more output per unit of input) has been relatively low in recent years despite impressive changes in technology during the same period. Please discuss the Council members' observations regarding productivity growth in the companies borrowing from banks and what considerations may have dampened or enhanced the productivity effect of technology.

Context: Productivity growth – particularly since the financial crisis – has reached historical lows. The compound annual growth rate in the U.S. has fallen from an average of 2.1% (1987-2004) to 1.2% (2004-2014), with a notable slowdown since 2011 (0.6%). And this trend is not unique to the U.S. Developed economies have seen their productivity growth decline from post-World War II peaks of well above 5% (i.e., Germany, France, Japan) to under 1% since 2011. This past week, it was reported that in the U.S., Q1 productivity grew at the slowest pace in three years – even as labor markets remained strong.

Participant Perspectives: Council members prioritized three drivers dampening productivity, in spite of technological advances: regulation, pressure for returns, and inadequate workforce talent:

1. **Regulation:** Several Council members noted the consequences of regulation at national, state, and local levels, which shifts management resources away from productivity-improving opportunities to deliver other costly solutions that often only marginally improve institutional risk profiles or benefit customers.
2. **Returns:** Other Council members submitted that technology investments have been shortchanged or slow to deliver results since many companies are focused on expense reduction and inorganic growth/M&A.
3. **Talent:** A few Council members suggested motivated, qualified workers to help drive real productivity growth are lacking – and that current technologies may actually have an *adverse* effect on personal productivity (i.e., growth of end-user computing inviting overload of e-mails and information sharing).

The manifest effects of productivity enhancements vary across industries, due to timing (i.e., adoption and integration lags) and efficacy – as companies work through internal processes and external considerations.

Productivity Themes for Discussion

Industry experts and academics agree that no single factor is responsible for low productivity growth and that technology is introducing direct and indirect influences to the traditional productivity equation – to both the "numerator" (value added) and "denominator" (hours worked). Recent research questions the impact of American companies expanding offshore – shifting productivity out of the country. But while productivity may be lower in the U.S., this does not explain the slowdown in *global* productivity.

We have outlined a few major themes that have impacted the productivity formula over the last decade:

1. **Lack of Investment**

   In periods of prolonged slow economic growth and uncertainty, there is often significant hesitation toward making large-scale investments in technology or economic output. In the last decade, annual domestic investment as a share of U.S. GDP has averaged below historical norms of 22-23%.

   Experts suggest a number of factors for this decline, including changes in the industry mix to asset-light sectors, corporate short-termism, constraints on housing, shifts in public policy, and accelerated cross-border investment. Despite stock market growth and other signs of strong economic momentum, uncertainty around the time horizon and sustainability of sluggish productivity growth can prevent investments in advanced technologies and efficiencies that may drive future productivity gains.

   The clouded investment market has led capital-intensity growth (i.e., capital services relative to hours worked) to be low to negative since 2009, with a -0.1% annual growth rate in the period through 2014 – an unusual trend for non-recession periods in the U.S. since 1987.

2. **Timing: Technological Innovation Lags – The "Solow Paradox"**

   Technological innovation despite its global participation and focus, has not yet led to direct productivity growth. Advances in the last decade have either been limited to specific sectors that are not big enough to move the needle at the aggregate level, or these advances have not manifested in productivity statistics, as experienced in the "Solow Paradox" first introduced in the 1980s.

   For example, computing in its formative years was unable to demonstrate measurable productivity gains until the mid-90s, when manufacturing and retail sectors better leveraged their capabilities to advance productivity and catalyze growth. Some speculate we are in the second wave of the Solow Paradox – and not capturing the benefits of smartphones; social media; or narrower, sector-specific innovation.

   Supposition on the future upside of technology also extends into market assumptions. Stock prices for firms not yet realizing productivity gains may have some expectation of gains baked in their valuations. Larger and more-labor-intensive firms may realize greater opportunity from robotics, digitization, and artificial intelligence, as technology drives more sector- or activity-specific advancements and as competitive pressures around client experience and efficiency force new and innovative thinking.

   Most importantly, productivity growth requires a meaningful step-up in managerial/organizational thinking and processes. Without a strong top-down mandate, there may be waves of innovative transformation opportunities missed by industry leaders and management teams.

3. **<u>Polarizing Impact of Various Industry Sectors</u>**
   Technological advances may appear to be taking over entire economies. Yet, the reality is that large sectors (both by GDP share and share of employment) that have an outsized impact on overall economic growth are actually driving the overall rate of productivity growth *lower* at an aggregate level. Specifically, labor-intensive industries such as retail, public sector, and healthcare, are far behind on overall digitization and technological innovation – overshadowing the contributions from smaller employment sectors like information technology, media, and advanced manufacturing. Within these industries, there are explicit "frontier *firms*" that have strong technological capabilities in relatively manual sectors. However, the gap between these leaders and the actual "frontier *sectors*" appears to be widening, further contributing to lower productivity growth when viewed as a whole.

4. **<u>Increasing Regulatory Pressure</u>**
   Regulatory pressure is perhaps the most frequently cited factor dampening overall productivity growth. There is no clear evidence that this is the primary force behind slow growth – however, anecdotally, compliance with a growing web of complex, global regulatory landscapes forces companies to trade off their limited resources that are focused on other corporate growth priorities.
   Regulatory changes have taken many forms. Both in the U.S. and abroad, new rules, tax, and capital regimes have created barriers to private-sector investment. It has been suggested that these policies limit investments and constrain credit and lending in areas that might drive more direct productivity growth.
   Workforce regulations have also impacted overall productivity growth. Government officials in the U.S. and overseas are wary of further technological advancements displacing workers and creating political uncertainty. These considerations may limit the uptake of automation in manufacturing and other similar industries, particularly where state or federal officials are tied to local labor groups.

<u>Case Studies</u>

- **<u>Retail:</u>** Perhaps like no other sector, we are seeing the impact from "frontier firms," such as Amazon, which have dragged a traditionally manual industry into the digital age. Growth in e-commerce is likely to continue to weigh on traditional retail margins, as brick-and-mortar companies are forced to adapt to customer behavior changes led by digital-only retailers. The shift to direct-to-consumer models may also impact those retailers that are not vertically integrated. New advances in mobile technology will make it even easier for manufacturers to take products directly to customers, bypassing wholesalers and retailers alike.

- **<u>Energy:</u>** Productivity gains in the energy sector have been largely driven by innovations in fracking, creating an efficient means of energy production that was previously too costly to directly impact the traditional "big oil" companies. These improvements have been focused in one area but represent a major disruption to the energy industry, as shale cap oil companies are able to turn strong profits in a $50-60/bbl. market. Growing regulatory pressure has slowed uptake somewhat but may be assuaged by further innovation and improvements in technology to mitigate environmental impact.

- **Media and Entertainment:** The rise of the Internet and mobile computing has impacted labor and consumer behavior. In 2002, nearly 700,000 Americans worked in the newspaper and publishing industries, and 840,000 worked at the Post Office. By 2012, these numbers declined to 450,000 and 610,000, respectively, and the Department of Labor expects further losses. E-mail and social media displaced intermediaries, just as iTunes, Spotify, and Pandora changed the need for over 1 billion CDs and brick-and-mortar music retailers. Improved mobile service led 50% of U.S. households to end their landline phone service by 2015. Displaced workers haven't migrated to the digital sectors replacing them (e.g., web hosting, software publishing). Between 2002-2012, 33 legacy jobs were lost for every new digital job created.

Conclusion/Next Steps

While there are a number of factors that may remain outside of our control, Council members, as business leaders, should pose a certain set of questions to facilitate and drive meaningful productivity growth:

- How can we faster embrace technology and innovation – so as not to let the full breadth of productivity growth be swallowed only by smaller, more nimble "frontier firms"?
- How can we use our position at the forefront of large institutions to invest in productivity-enhancing technologies to drive innovations that facilitate real productivity gains?
- What questions need to be asked (and answered) to drive more manual industries – especially public and highly regulated sectors (e.g., government, health care) – towards stronger productivity growth?
- How can we influence government and policy makers to prioritize efforts to create private-sector growth – including reduced uncertainty and smarter business reforms?
- How can we invest in better measurement and understanding of growth in productivity – so as to better capture the full scope of what we are trying to solve as business leaders?

Item 6: Monetary Policy

How would the Council assess the current stance of monetary policy?

The Council views the current stance of monetary policy as accommodative and believes that current conditions support further interest rate normalization. Reductions in the Federal Reserve's balance sheet should be carefully considered and communicated to the market.

Q1 GDP

- First-quarter GDP growth was reported at an anemic 0.7%. This did not reflect the recent annual revisions to retail sales, which imply a downward revision to today's number.
- The weakness was due to special factors, some of them weather-related, that are expected to dissipate or reverse in Q2 when growth should bounce up over 3%.
- In that case, first-half growth for 2017 will be around 2%, pretty much the recent norm.

Interest Rates

- Low interest rates may be generating more economic costs than benefits.
  - The pace of bank lending growth has been declining dramatically, suggesting that low interest rates are less of a lure for leveraging.

- Savers are being forced to take additional risk to achieve acceptable returns, leading them to asset classes they are less comfortable with; this creates the risk of financial instability.
- Pension systems and other collective saving vehicles are facing important challenges in the low rate environment.
- Some asset classes (including commercial real estate) have been singled out for concern about potential overheating by the Federal Reserve.

Balance Sheet

- The Federal Reserve's balance sheet is unlikely to return to its pre-crisis level. Excess reserves held by banks at the Federal Reserve are likely to remain elevated (and effectively represent the floor for the balance sheet) because:
  - Post-crisis liquidity rules require institutions to hold high-quality liquid assets in proportion to their less-stable funding sources.
  - The central bank is a safe counterparty, and the interest rate on excess reserves is improving.
  - To steer overnight interest rates effectively within the target corridor, the Federal Reserve needs to sustain a significant level of available reserves in the banking system.
  - Estimates vary, but a balance sheet target of $2.5 trillion has been mentioned frequently by analysts. This is $2 trillion below the current level.
  - Rough calculations suggest that it will take roughly 2½ years to reach the target after reinvestments are ceased. Starting sooner will allow the goal to be reached sooner.
  - While the Federal Reserve has had challenges communicating balance sheet strategy in the past, recent conversations have been handled carefully. Long-term interest rates have fallen even as discussion about reductions in the Federal Reserve's portfolio has advanced.

Market Expectations

- Equity markets and other risk assets can adjust to a further reduction of monetary accommodation (rate rises, balance sheet shrinkage), provided the pace of increase is gradual and generally in line with market expectations and economic data.
  - Investor expectations of future rate hikes had moderated in recent months due to incoming data on U.S. economic growth and softer inflation figures. However, following the first-round results of the French elections and improved economic data, expectations have returned to the level of a quarter ago, i.e., up to two rate increases expected in 2017.
  - The causes of the flattening yield curve are a matter of considerable debate. While geopolitical concerns may be playing a part (North Korean tensions, French election risk), market participants are also attributing some of the flattening to a more conservative outlook for nominal growth.
  - Investors have some concern that the flattening yield curve may complicate the Federal Reserve's efforts to further normalize interest rates.
  - However, improving economic data, accompanied by two more rate hikes this year and a start to reducing the size of the Fed's balance sheet should contribute to a steeper yield curve.

   - The risk of collateral damage from rate hikes may be higher than in prior cycles due to the extended period of low interest rates and the resulting increase in duration and credit risk that some investors have taken.
   - The likely measured pace of tightening should somewhat mitigate this risk.

Other

- The Federal Reserve must be mindful of the progression of discussions on tax reform and the potential impact on monetary policy.

Absent something unforeseen in the U.S. data or in the international arena, the ground seems solid for two further increases in short-term interest rates in 2017.

<u>12:00 pm – Luncheon for Council and Board members in the Board Room</u>