RECORD OF MEETING

Federal Advisory Council and Board of Governors

Wednesday, May 4, 2016

<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:

- The Council believes that there has been little change in the current economic condition of and outlook for loan markets and financial markets in general. The economic conditions are slightly slower than in 2015 but have improved since February 2016.
- Loan markets and financial markets continue to remain constructive and growing, amidst the recent market volatility.
- The Federal Reserve's recent tightening, combined with the bond market rally, has flattened the yield curve, thereby creating a challenging environment for financial institutions.
- The small business sector appears to be "plodding along."
- The multifamily market remains robust; however, many banks are moderating their lending activity due to balance sheet concentrations.
- Continued low commodity prices are having an ongoing negative effect on agricultural producers' profitability, liquidity, and leverage. Although real estate values haven't dropped much, the Council expects a bigger decline to occur.
- Oil-price levels and volatility continue to impact the energy sector and indirectly impact other sectors; however, firmer oil prices since mid-February have helped to support U.S. equity prices.
- Positive signs exist in the consumer credit market, with many segments performing strongly. There are signs consumers are starting to spend their oil savings.
- Generally speaking, the housing recovery continues at a moderate pace, with values continuing to appreciate, but is uneven across markets.
- Labor markets are improving. Although wage growth and retail sales have been soft, some regions and industries have seen indications of wage inflation.

(a) Small and Medium-Size Enterprises

- Small business owners continue to be cautious over the near term, and they are exhibiting mixed signals.

- Small and medium-size enterprises appear to be profitable, with very low borrowing demand as they are using stockpiled cash for modest expansion. They are likely to remain conservative given the economic and election-year uncertainty.
- An increasing number of institutions report weakening loan demand, a change from the stronger tone in January 2016.
- Competition remains fierce among financial institutions for borrowers openly seeking credit, which is driving some loosening in loan structures and loan pricing in many markets.
- Competition also continues to intensify as the continued growth of online/alternative lenders provides another avenue for small business owners, particularly those with short-term working-capital needs or those looking for quick funding options for their firm.
- Taxes and healthcare costs continue to be a primary concern for small businesses. These concerns have been amplified with the continued uncertainty around the upcoming election.
- Owners are expecting to spend less on capital expenditures and hiring in 2016, primarily due to their concerns with the economy. This lack of optimism will continue to put a damper on loan demand in this space.
- In general, credit quality remains strong, but the Council believes that this is the bottom of the cycle and past-due levels and charge-offs cannot remain where they have been for the majority of 2015, especially given the risk profile for this segment.

(b) Commercial Real Estate and (c) Construction

- Demand for CRE product continues to be strong within retail, office, and industrial properties.
- However, in certain markets, this sector is becoming saturated with multifamily and senior-housing projects. Some bankers have noted that multifamily could become overbuilt, particularly in specific markets. Council members expect that any interest rate spike will depress values quickly, as higher rents will need to be passed on and vacancy rates could increase.
- Demand has remained stable for construction loans, with loan terms and conditions remaining relatively stable and with some banks having a bias toward tightening.
- Council members are seeing a growing amount of new construction activity and loan demand for large bulk industrial facilities in port cities and major transportation hubs, as the outlook for this sector has continued to improve. Speculative construction is also increasing.
- There is continued declining vacancy and rent growth in office retail and industrial, with e-commerce being the primary driver of new industrial development.
- The hotel industry has continued its strong-fundamentals recovery. Revenue-per-available-room continues to exceed pre-recession levels.

(d) Corporations

- Loan demand in the first quarter of 2016 continued its soft trend from the prior quarter and is down from the start of 2015.
- Loan growth in 2015 was driven primarily by one-time events (M&A, share repurchases, refinancing) and not necessarily by organic growth. In the absence of organic growth, 2016 is expected to be a marginally slower year.

- Underwriting has remained consistent, with a slight easing of lending standards for medium-sized businesses. The lending environment continues to be extremely competitive, specifically due to aggressive pricing.
- Banks' appetite for leveraged lending is generally diminishing, and it is becoming more difficult to syndicate larger transactions that require multiple banks.
- Corporate clients continue to keep excess liquidity with banks, as evidenced by strong deposit growth during 2015.
- On the energy front, banks continue to actively review and closely monitor their energy portfolios. Lines of credit have been generally reduced.

(e) Agriculture

- Grains – Overall pessimistic; operators are adjusting to the new norm of lower commodity prices. Land values are starting to drop, and further drops are likely as more borrowers/banks decide to liquidate.
    - Cash rents are down, and banks are finding that more tenants are willing to walk away from overpriced leased ground. More farmers are willing to "right size" and accept restructuring. However, some operators are not yet able or willing to adjust family living expenses.
    - 2016 farm incomes are forecasted to be at decade lows. Furthermore, due to the lack of price volatility, farmers are reluctant to sell into low prices.
    - A majority of grain farmers remain well capitalized and are in good financial condition, and overall industry leverage is significantly lower than it was in the last major agriculture downturn in the early to mid-1980s.
    - Farm credit remains a significant alternative to bank lending.
- Protein – stable. Protein producers, who use grain (e.g., corn and soy) as a feedstock, should continue to benefit from lower grain prices, but producer profitability in 2016 will be contingent on effectively managing supply. Excess supply in poultry and pork in 2015 had a noteworthy negative impact on producer profitability.

(f) Consumers

- Consumer lending shows slow, steady growth, with overall demand for consumer loans expected to increase in 2016.
- Auto sales continue at a strong pace after a record high in 2015, and consumer demand for auto lending is strong, as borrowing costs remain historically low. Gasoline remains inexpensive, and vehicle-purchase incentives are good.
- Credit performance in the prime and super-prime sectors continues to be strong.

(g) Homes

- The U.S. mortgage market continues to rebound, with homeownership rates continuing to trend upward after a decade-long decline. With solid job growth to start the year, the housing market is expected to continue on a growth path.
- Housing prices are continuing to rise at a macro-level, but there is some concern this appreciation is over-accelerating due to a lack of affordable supply in some markets.
- Continued job growth and low mortgage rates are anticipated to keep the housing market on a gradual upward trajectory in the coming months.
- Single-family home starts in February were at their highest level since November 2007.

- According to CoreLogic, foreclosures decreased almost 27% to their lowest level since the housing crisis began.
- New buyers are poised to enter the market as rent prices continue to increase and negative credit events from the start of the crisis (2007) move off borrowers' credit reports.

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?

- The drop in farmland value is more than reported as many sellers are holding off by not accepting the highest bid.
- Clients appear more willing to consider being acquired by private equity firms, a phenomenon that is driven by age demographics and by being at a relatively late stage in the economic cycle. Sales multiples remain high.
- After rapid growth over the past several years, there are signs that the pace of activity in the multifamily segment of the construction market has peaked. It is still too early to draw a definitive conclusion, and the level of multifamily construction will likely remain elevated but simply not continue to grow at the rate seen in recent years.

<u>Item 2</u>: <u>Special Topic – Shadow Banking and Market-Based Finance</u>

> **(a) *Shadow Banking*. Many nonbanking organizations continue to play a significant role in the financial system by engaging in activities analogous to traditional banking activities, such as credit intermediation and payment services. Some view this change as a positive development that advances innovation in financial products and serves niche markets that otherwise may be underserved. Others contend that such activities adversely affect accessibility to and the resiliency of the financial system. In the Council's view, what are the benefits and risks of having nonbanking participants provide these types of services, and what regulatory actions could be taken to mitigate those risks without unduly inhibiting the evolving market for banking services?**

<u>Introduction</u>

- The shadow banking system ("Shadow System") was created as an alternative to traditional banking institutions and performs a significant role in today's financial system by engaging in some activities that were historically the purview of traditional banks. Nonbanking organizations, such as finance companies, financial technology (fintech) companies, marketplace lenders, broker-dealers, money market mutual funds, hedge funds, private equity firms, and government-sponsored entities ("GSEs"), represent the most significant players in the Shadow System.
- As sustained low interest rates allowed for a consistently favorable cost of capital, technology evolved at an exponential pace. Consumers and businesses were exposed to a variety of options in the market, and the shadow players grew in relevance.

- Credit migrated away from traditional banks as investment banks, hedge funds, private equity firms, and GSEs began to devise investment instruments that allowed consumers and businesses to access credit in new ways.
- The sustained low interest rate environment also fueled a "reach for yield" by market investors. A similar "reach for yield" occurred on the depositor front, as mutual fund providers began aggressively capturing short-term cash by promulgating money market funds. Businesses and consumers began using these less-regulated money market funds as a primary vehicle to earn higher, seemingly risk-free returns, while having the perceived benefit of ongoing liquidity.

- Today, the Shadow System is performing many of the same, or variants of, credit intermediation and payment services that traditional banks perform. Additionally, shadow players offer short-term investments that mimic the features of traditional bank deposits.
  - As of 2015, in consumer lending areas where they participate, nonbanks account for about 50% of the $2.5 trillion of consumer loan originations.[1]
  - As of 2015, only one-third of the approximately $24 trillion of private-sector financing for commercial purposes comes from banks.[2]
  - According to flow of funds data from the Federal Reserve, shadow banking liabilities now approximate bank liabilities.
  - Nonbank involvement in payment services has accelerated, with existing retailers and fintech companies introducing and/or expanding their capabilities to capture a greater percentage of the payment business.
- Council members have outlined the facets of the shadow banking system that impact consumer lending, commercial lending, deposits alternatives, and payments by addressing the benefits and risks of these components of the Shadow System. Furthermore, Council members have made recommendations to address these risks in order to provide for a safer financial system, and not just provide for safer banks.

Nonbank Participation in Consumer Lending

Benefits & Risks

In the consumer lending segments in which they participate, nonbanks account for $1.2 trillion, or approximately 50% of total 2015 consumer loan originations.[3] Approximately 68% of this volume is concentrated in mortgage originations, which are primarily funded by the GSEs, followed by 20% in prime auto loans, 8% in subprime auto loans, and 4% in unsecured consumer and student loans.[4] Nonbank servicers also make up a significant portion of the mortgage-servicing industry.[5]

Nonbank lenders serve important segments of the population that do not have ready access to bank credit, and these lenders generally thrive in products that are not the focus of traditional

---

[1] Total origination volume ($2.5tr) does not include changes in outstanding balances of credit cards (~$730b in outstanding) and revolving home equity loans (~$490b outstanding), which are primarily provided by banks. Also excluded are changes in outstanding balances of closed network cards/other (~$100b outstanding).

[2] Sources: ECB, Federal Reserve, SIFMA, Bank of Japan, and KBW Research.

[3] See footnote 1.

[4] Nonbank lenders represent ~46% of total mortgage originations, ~55% of prime auto loan originations (primarily captive auto-finance companies), ~76% of subprime auto originations, ~42% of unsecured consumer loans, and ~5% of student loans.

[5] By 2015, the nonbank share of the top 25 servicing balances reached 32% versus 11% in 2010.

lenders. For those products, banks have either chosen not to participate because they offer alternative products (e.g., banks' credit cards versus nonbanks' installment loans) or the current regulatory environment makes it uneconomical for banks to take direct consumer lending risk in these markets (e.g., subprime consumer risk). Both traditional banks and nonbank participants are necessary for a healthy and growing economy.

Nonbanks also allow access to credit in a different way than banks. Technology, convenience, speed in decisionmaking, transparency, user-friendly interfaces, and potentially lower rates are among the factors that drive borrowers to use a nonbank lender. Unlike banks, which offer multiple banking products to consumers, nonbank lenders generally have a single or just a few product offerings that focus on a specific type of loan or customer base, and their offerings are generally simple – most are fully amortizing and at a fixed rate. Nonbanks are generally at the forefront of product innovation and use new technology to originate and service loans. This innovation and resulting increased competition within the consumer lending space are beneficial but also create risks that are best managed through a clearly defined and consistently applied set of laws and regulations for banks and nonbanks alike. In summary, nonbank lending is both a benefit to the overall consumer lending market, as well as a potential source of systemic risks.

As opposed to banks, which generally have stable sources of funding such as a deposit base, nonbank lenders typically rely, to a higher degree, on wholesale financing and the securitization market. In the event that sources of funding become unavailable or not economically viable, liquidity could be constrained, and consumer credit could become less accessible if alternative funding sources do not fill the void. In a market such as subprime auto lending, a critical source of financing for a large segment of the population, the risk is heightened by traditional banks' lack of direct participation in this market.

Banks are actively involved with nonbank lenders, providing financing for assets originated, access to the capital markets through debt and equity issuance services, and many other services, including cash management, custody, trustee, and backup servicing. By providing financing and the other services listed above, banks also support various investment firms that purchase whole loans or that own nonbank lenders. This support includes assisting these firms with packaging pools of loans and facilitating securitization. Banks also provide repo financing and custody/clearing services to support investors who trade asset-backed securities in the secondary market as part of their investment strategies. The collaboration between banks and nonbank lenders is significant, and banks play an important role in both facilitating and monitoring this market through the performance of the individual companies they work with.

Relative to the 2008 financial crisis, which was rooted in the home mortgage market, the nonbank consumer lending market described here is made up of a diverse set of companies generally operating in one market and in one line of business. The simplicity of the products described above is also decidedly different from the myriad of mortgage products (interest only, payment option, etc.) available pre-crisis. Yet as certain segments of the nonbank market continue to grow and become more integrated into the consumer credit decision process, they may introduce systemic risks if that expansion is fueled by lowering origination and servicing standards. This risk is particularly relevant for banks because one of the outcomes of the financial crisis was a realization that the press and the public have not always recognized that "banking" roles were being played to a large extent by lesser-regulated nonbanks or shadow banking players.

The following areas of concern regarding nonbank lending entities could lead to a buildup of systemic risk in the nonbank lending segment, as well as the overall consumer lending market.

- *Regulatory Framework:* Nonbank lenders operate under various regulatory frameworks, including state licensing or lending through a bank partner. Aside from the Consumer Financial Protection Bureau, there is not a unifying regulatory regime and, consequently, there is a lack of consistency on the applicable regulatory framework.[6]
- *Regulatory Guidance and Enforcement:* In addition, it is not clear which regulatory body is responsible for enforcing existing regulations and laws. Given the fragmentation of this market, issues with lending abuses may only be uncovered through consumer complaints or litigation. Furthermore, given the lack of clarity or potentially inconsistent oversight, nonbank lenders have a competitive advantage in terms of potentially looser product development and marketing oversight relative to banks.
- *Credit Bureau Reporting:* It is not clear that all nonbank lenders are reporting appropriately to the credit bureaus. This potential deficiency is detrimental to all market participants, including banks, involved in consumer lending and raises concerns regarding the over-leveraging of consumers.
- *Underwriting Standards:* To Council members' knowledge, most nonbank consumer lenders use traditional credit scoring and evaluate the appropriateness of offered products for the borrower. Although in some cases, such as marketplace lending, the performance of underwriting models through a full credit cycle has yet to be observed. However, there are many smaller platforms that have stated they will use social media or other "big data" for underwriting purposes. While the total originations by these platforms are limited and thus pose little in the way of systemic risks, this practice does raise consumer protection and fair lending concerns.
- *Privacy and Data Protection:* The ownership of nonpublic personal information, how it will be used, and who is responsible for safeguarding the information are critical considerations to the overall consumer finance market. While this issue has not arisen with nonbank lenders to date, the growth of certain segments of nonbank lending, coupled with the advancing use of technology as the primary customer interface, raises potential systemic concerns that need to be monitored and evaluated.

Recommendations

The Council recommends addressing the following concerns to prevent systemic risks from evolving in the consumer lending market:

- Apply and enforce laws and regulations consistently.
- Clarify which government entity is responsible for monitoring and enforcing those laws and regulations.
- Apply the same level of diligence to product and process reviews across the market.
- Monitor potential conflicts of interest between banks and the capital markets participants that provide funding.

[6] All consumer lending is subject to the federal lending and consumer protection laws, including the Truth in Lending Act; Equal Credit Reporting Act; Fair Debt Collection Practices Act; unfair, deceptive, or abusive acts and practices (UDAAP); anti-money-laundering and know-your-customer requirements; privacy and data security laws; and electronic commerce laws.

- Monitor asset performance.
- Monitor potential issues arising in relation to privacy and data standards due to technological advances.

It is also important to monitor nonbank lending from the standpoint of consumer protection, fair lending, and associated risks. These considerations should be applied to each asset class and its respective products and services. Products and services provided to consumers should be evaluated with through lens of consumer fairness to ensure that they are not deceptive or abusive or do not otherwise pose unnecessary risks or customer harm.

Nonbank Participation in Commercial Lending

Commercial banks appreciate and respect the benefits of the financial alternatives provided by nonbanks in the Shadow System. Both traditional banks and shadow bank participants are necessary for a healthy and growing economy. Banks and nonbank financial participants are inexorably linked together in many ways. Banks are often the initial underwriters and originators of credit that gets distributed to the Shadow System; banks often structure securitizations that are also sold to nonbank asset managers; banks are both issuers and facilitators of the commercial paper markets; banks are central players in the repo markets and use them for funding as well as customer investments; banks are often the partners of shadow banking participants in the payments space; and banks provide investment products necessary for the money market funds to function. Shadow banks are competitors, customers, and partners of traditional banks.

Overview

- Nonbank participants such as collateralized loan obligations (CLOs) managers, business development companies (BDCs), and hedge funds have taken a greater share and a more prominent position in the leveraged-lending space. In 2015, five of the top ten leverage lenders were nonbanks. Other than the most high-profile financing transactions for Fortune 500 corporations and top-tier private equity sponsors, the nonbank players now largely own the higher-risk end of the leveraged-loan spectrum.
- These firms have sufficient underwriting capacity and capital markets distribution capability to underwrite all but the largest (over $5 billion) financings, and they are willing to take risks that exceed the limited risk appetite of regulated financial institutions.
- Nonbank firms are increasing the complexity of capital structures by underwriting risk through the most junior piece of the capital structure. In the middle market, they have substantial balance sheet capacity to do so, without the structural and pricing protections required by traditional commercial bank underwriting and distribution processes.
- Nonbanks are generally active in private-equity-led transactions, particularly in the middle market, but increasingly in the large capital space as well. This activity creates an under-appreciated conflict between the nonbank lender and the business owner.
- For small business lending, nonbanks are reducing costs for gathering and processing underwriting data and may be able to improve access to credit. Many nonbank participants are leveraging technology and innovation to improve the lending process and deliver a better customer experience.

Benefits

- A benefit of increased nonbank participation includes increased credit creation, which will ultimately help economic growth.
- Nonbank lenders may, in some situations, market their services based on innovation and a claimed flexibility to close and administer credit facilities more quickly or with greater flexibility than banks.
- Nonbank sources of commercial credit can have greater flexibility to quickly move into niche industries or customers whose risk or regulatory profile may not be suitable for traditional bank lending.
- Nonbank lenders are able to opportunistically take risk that banks realistically cannot assume, thereby providing a valuable and alternative source of turnaround and transitional capital to the markets.

Risks

- The potential risk to the overall financial system may increase as nonbank entities take a larger role in the financial system.
- The shift in lending activity from banks to asset management platforms, which may be exclusively financed with wholesale credit, creates a potential stability risk. An adverse economic change could stress the stability issue.
- The expansion of nonbank lending has resulted in credit being available to more borrowers, but these borrowers may not be as sophisticated or aware of inherent risks.
- Nonbank lenders may make the market more competitive but in the process may diminish the overall level of transparency and quality of advice offered to borrowers.

Potential Regulatory Actions

- As interest rates normalize, there will potentially be declining activity in the nonbank space. With interest rates historically low, capital is being provided to the nonbanking market at unusually low levels of costs. When rates begin to normalize, this capital may begin to flow back into more traditional investment options and thus constrain the supply of capital in the nonbanking sector, placing more stress on funding sources.
- Measures should be considered to moderate the disparities between bank and nonbank lenders to ensure a robust and competitive lending marketplace where businesses are able to make informed choices among a variety of sources for commercial credit and where businesses can be assured of a reliable and sustainable relationship with their chosen lender or banking relationship manager.
- A review of the capital and regulatory rules that have impacted bond market liquidity should be considered, based on an analysis of bond market liquidity under a stress test. This analysis should ultimately examine possible rule changes to improve liquidity and maintain safety.
- The impact of the risk retention rules should be monitored. Policies should be adjusted to ensure that the use of third parties does not create undue advantage for nonbank lenders.
- Rating agency practices and the results of their ratings, now a decade after the crisis, should be reviewed.

Nonbank Participation in Payments

Overview

- Ensuring the efficient and effective operation of the U.S. payment system requires public-private coordination between regulators, banks, nonbanks, and other stakeholders. In the following section, the Council will address the Board of Governors' inquiry into the benefits and risks of shadow banking activities in and around the payment system.
- It is noted that the emergence of new technologies and business models is creating tangible value for consumers and businesses, while also introducing new risks. These new risks need not cause alarm, but deserve robust discussion. Market participants and policymakers collectively need to understand the impacts, isolate the benefits and risks, and ultimately strive for balance between the two.

Benefits

- **Simplifying Payments:** In the last decade, nonbank innovators have delivered significant value to consumers and small businesses by making payments simpler and more intuitive. PayPal enabled P2P transfers. Square made it easy to accept cards in person. Stripe simplified "in-app" payment acceptance.
- **Promoting Commerce:** More recently, nonbanks who operate large "app ecosystems" and social platforms have started to develop their own payment infrastructures, such as Apple Pay and Facebook Credits, to facilitate commerce and support vibrant micro-economies.
- **Offering Data Insights:** By making consumer banking data available to third parties, data marts like Yodlee are powering a new generation of innovators who are building everything from low-cost alternatives to credit cards (Knox Payments) to electronic wallets for BitCoin (CoinBase).

Emerging Risks

- **Uninsured Deposits:** While the shadow banks are creating value, they're also generating risk. For example, deposits held in unregulated and undercapitalized shadow banks expose consumers to direct losses. One firm, which is growing 25% per year, already has $12b in liabilities ($5b in deposits plus $8b in unsettled payments).
- **Cyber Exposure:** Despite their good intentions, data marts such as Yodlee and Plaid introduce systemic vulnerabilities. Thousands, if not millions, of consumers have given these firms their banking passwords, thus creating a single point of failure that, if exposed, would lead to simultaneous account breaches at hundreds of banks.
- **Data Privacy:** When consumers share access to their accounts with third parties, they face an all or nothing choice. Users don't have the information or tools to control what data are taken, how the data are used, or how many times that third party can access their account.
- **Consumer Protection:** As payments go digital, the biggest social platforms are starting to offer their own proprietary payments. SnapCash, SquareCash, and Facebook P2P are examples of this phenomenon. Similarly, retailers are developing payment platforms like MCX to reduce their reliance on credit cards. Since each model above has its own rules,

consumers can be left without the protections they have come to expect, thereby undermining confidence.

- **Closed Loops:** As noted with dark pools, risk in closed systems can grow unnoticed. Once money is loaded into a platform like Venmo, Dwolla, or BitCoin, it serves as tender inside a digital economy, where it is effectively invisible until a user converts it out of the system.

Regulatory Considerations

As regulators approach the Shadow System, several topics are going to be of primary concern. Preserving confidence in the payments system is tantamount, of course, but regulators must also be mindful of the need to cultivate fair and efficient markets.

Striking a balance between the benefits of shadow bank innovation and the attendant risks requires a willingness to engage in dialogue, to understand the issues, and to apply a principle-based regulatory framework that transcends any single technology.

Path Forward

As technology makes it easier to bypass the regulated payment system, more and more payments will shift into the Shadow System to avoid the cost and complexity of the regulated system. Acknowledging this, regulation must keep pace and continuously evolve at or ahead of the velocity of the marketplace to ensure healthy competition and fair outcomes for consumers in the future.

Moving towards an activity-based regulatory framework will provide consumers with uniform protection based on the actions they take, and not on the legal status of the provider where they conducted the transaction. Likewise, championing the customer's right to choose will be an important "north star" as the industry addresses complex data privacy issues that have divergent economic interests.

The Council notes that the infrastructure and regulation defining the U.S. payment system were crafted before some of the most prolific technologies of the modern age (e.g., Internet, mobile, application program interface). Recognizing that new technology is critical to both the vitality and durability of our system, we must work collectively to create space for innovation while preserving safety and soundness.

In conclusion, by providing clear and consistent direction, regulators can provide a stable foundation for the private sector to invest and compete on value, and not on regulatory differentials among service providers.

> **(b) *Market-Based Finance*. Does the Council believe that a regulatory response is needed to address systemic concerns with funding by nonbanking organizations? For example, should financial regulators adopt broadly applicable minimum margin requirements for repos and other forms of collateralized short-term borrowing?**

Shadow banks encompass a broad range of financial intermediaries that perform bank-like activities but are not regulated as such. From a deposit/funding perspective, these vehicles provide maturity transformation by acting as deposit alternatives for investors. Examples include:

- Short-term securities (e.g., commercial paper, asset-backed commercial paper, and GSE discount notes).
- Money market mutual funds (MMMFs).
- Exchange-traded funds (ETFs).
    - ETFs that invest in long-term illiquid "banking" assets (e.g., leveraged loans) are most notable, as they act as a substitute for credit extension historically provided by banks.
- Repurchase agreements (repos) – both bilateral and tri-party arrangements.
- Total shadow bank liabilities are approximately $18 trillion, about equal to commercial bank liabilities.
    - At their peak in 2007, they represented 172% of commercial bank levels.[7]
- Regulators should consider the risk potential of these instruments and ensure that opportunities for regulatory arbitrage do not result in a buildup of risk within the financial system that inadvertently falls outside of regulators' purview.
- Regulators should also carefully consider what entities are defined as shadow banks to ensure that efforts to sustain credit availability throughout the cycle are effective.

Benefits

MMMFs, repos, commercial paper, asset backed securities, and agency discount notes provide necessary short-term funding to various market participants.

- In a normalized yield environment, MMMFs have traditionally offered depositors a higher yield than that of a traditional bank money market deposit account or savings account.
- If administered in a controlled manner, deposit alternatives can offer a degree of short-term diversification when compared with the credit risk associated with an uninsured portion of a singular traditional bank deposit.

Repo Market

- Many nonshadow banking entities, including commercial banks and dealers, use repos as a financing tool.
- The size of the U.S. repo market decreased to $3.7 trillion at the end of 2015, from a high of $4.8 trillion in 2007.[8]
    - At 44%, repos are the largest component of the $8.6 trillion in short-term shadow banking liabilities (MMMFs are second at 32%).
        - In 2006, short-term liabilities were $11.6 trillion, of which 42% were repos.
- The tri-party repo market peaked in 2007 at $2.8 trillion; volumes have remained constant around $1.6 trillion since the financial crisis.
    - JPMorgan Chase and Bank of New York Mellon are the only tri-party clearing banks in the United States.
    - Primary dealers do the majority of borrowing.
        - It is highly concentrated, as the top five collateral providers account for more than 50% of borrowing, with the top 10 accounting for almost 80%.
        - At the peak, some dealers were financing as much as $450 billion of securities (mostly overnight).

---

[7] Board of Governors of the Federal Reserve System, Z.1 Statistical Release – March 10, 2016.
[8] Board of Governors of the Federal Reserve System, Z.1 Statistical Release – March 10, 2016.

    - Thousands of entities participate as cash investors, with MMMFs being one of the most significant players.
        - Prime MMMFs hold approximately 25% of their investments in repos, approximately $447 billion.[9]

Risk Considerations

- Thanks to the Federal Reserve's Task Force on Tri-Party Repo Infrastructure, significant progress has been made to reduce reliance on intraday credit provided by clearing banks.
- Dealer default remains a concern.
    - A default could result in a fire sale of collateral securities to raise funds to pay back cash investors.
    - The uncoordinated nature of the sales would put downward pressure on fixed-income markets and potentially generate losses for cash investors (notably MMMFs that lend cash in the repo market).
    - Entities that rely on mark-to-market accounting would also be negatively affected by the price changes.
    - Contagion is a particular concern for both retail and institutional investors holding repos through MMMFs or other vehicles, as the losses may incent further selling.
    - It should be noted that the market stress associated with this scenario may incent a flight to quality, increasing demand for Treasury securities.
        - This price support may have a mitigating impact on price declines in the Treasury securities market.
- Risks are typically less concentrated in the bilateral market, so it poses less of a systemic threat than the tri-party market.
    - However, the inherent asset-liability mismatch makes entities that rely on repo funding susceptible to runs.

Regulatory Considerations

- Increased margin requirements would be a broad and effective tool to reduce risk associated with the repo market. However, to be most effective, margin requirements should:
    a. Not provide an incentive for regulatory arbitrage between banks and nonbanks (i.e., ensure a level playing field);
    b. Allow creditworthy institutions access to short-term collateralized borrowing at market-based prices; and
    c. Not unintentionally adversely affect certain businesses that rely on repos.

        NOTE: (1) Challenges with calibrating a standard margin requirement should be considered because one level may not be appropriate for all circumstances, and (2) margin requirements should not duplicate existing prudential reforms applied to other repo using entities, such as MMMFs.
- In the tri-party market, an opportunity may exist to reduce systemic risk by treating the clearing function that banks play more like a financial market utility, given their

[9] Investment Company Institute, Weekly Total Net Assets and Number of Money Market Mutual Funds.

importance to market infrastructure. Further thought around the following topics may be appropriate:
   a. Creating limits around borrower concentration and credit risk, and
   b. Providing guidelines on collateral liquidation procedures in the event of a large default.
- If margin requirements make repo transactions uneconomical, it is likely borrowers and lenders will explore other, possibly less-regulated funding sources, which may have systemic risk implications.
- Focusing on counterparty concentration risk may be effective in reducing systemic risk, in both the bilateral and tri-party markets.

Asset Management Considerations

- Investors in MMMFs may perceive that they have support from fund providers or, ultimately, from a government backstop, as was the case with the Reserve Fund during the financial crisis.
- The risks of deposit-like products should be clearly delineated for investors, which can be accomplished in a variety of ways, such as:
   a. Variable net asset values for MMMFs,
   b. Explicit disclosure to investors that they assume investment and liquidity risk of the fund's underlying investments (e.g., the ETF may have intraday liquidity, but the underlying assets may not), and
   c. Clearly disclosing that fund managers are not responsible for making investors whole.
- An understanding by investors that these investments could lose value and/or not be immediately liquid may reduce the risk of contagion in times of market stress.
- Capitalization of investment products would reduce systemic risk but comes with tradeoffs that may make certain products uneconomical to manage and potentially create a moral hazard, as investors no longer assume the full risk of their investments.

<u>Conclusions About Shadow Banking and Market-Based Finance</u>

- Shadow banking entities offer significant benefits for businesses and consumers, including innovative products and services, simplification, access, flexibility, convenience, technology, and speed. However, Council members agreed it is concerning to reflect on how opaque many of these activities are and to assess how many of these activities occur without the same level of oversight that banks have today.
  - While many may debate that these activities do not create a systemic risk, the interplay between the Shadow System's players and insured financial institutions that was observed in the last crisis would suggest otherwise.
  - While scrutiny of banking activities has rapidly increased since the Great Recession, policymakers have not placed the same amount of scrutiny on nonbanks, thereby leaving the financial system exposed to future shocks.
  - Heavy regulation of the traditional banking system has driven capital-intensive business activities to nonbanks, which are less regulated thereby creating the potential for outsized risk-taking. The new accounting rules on establishing the allowance to encompass expected losses over the loss of an asset will in all likelihood further impact bank

decisions to exit certain lending sectors. Furthermore, growing restrictions on how banks compensate their employees will continue to drive talent from banks to shadow banking entities.
    - Over time, the increased regulatory requirements of banks and the cost thereof, coupled with the lack of consistent regulation being applied and enforced within the Shadow System, has caused a regulatory arbitrage that has increased in severity. For banks, the cost of complying with regulations has come at the expense of innovation within the banks. Innovation in the Shadow System has increased at a rapid pace, oftentimes outside the purview of regulatory agencies.
    - The innovation and lack of consistent regulatory guidance related to the Shadow System has created a potential "bubble," not unlike prior asset bubbles observed in the markets, whereby innovation has flourished, but the infrastructure containing the relevant and effective policy to protect the entire financial system has not kept pace. Furthermore, ever-increasing regulations for banks are accelerating the pace at which traditional banking activities are moving to the Shadow System.
- Council members recommend that policymakers consider the following actions to reduce regulatory arbitrage and to ensure that the U.S. has not only a safer banking system but also a safer financial system:
    - Impose a minimum capital requirement or other safeguards for all entities to require that single-purpose and specialty entities maintain a layer of capital for loss absorbency to mitigate systemic risk.
    - Provide clarity on which government entity is responsible for monitoring and enforcing both safety and soundness and consumer protection laws and regulations for nonbank entities that offer products and services to both consumers and businesses.
    - Apply the same level of diligence to product and disclosure review across the market. The goal is not to impede innovation but to provide the same level of protection consumers have come to expect. Establishing principle-based regulations for all participants in the Shadow System will help provide the aforementioned uniform protection to consumers.
    - Monitor the Shadow System's asset performance and concentration risk to readily identify credit and liquidity risks. If these assets are not reviewed with the same scrutiny as traditional bank assets, credit and liquidity erosion can significantly impact the securitization market and could create broader market shocks.
    - In repo markets, increase margin requirements for all market participants, recognizing the regulatory requirements already imposed on various participants and allowing for gradations in the quality of collateral offered.
    - For MMMFs, eliminate special accounting and require guaranteed redemption facilities, capital to absorb market shocks, and/or floating net asset values.
    - Exclude excess cash held at the Federal Reserve from leverage and tangible capital calculations in order to reduce price volatility when outflows occur. This action would reduce the tendency of traditional banks to resist accepting additional deposits as a result of Shadow System regulations that would otherwise drive money to the banking sector.
    - Monitor potential issues related to privacy, data standards, and cybersecurity as a result of technological advances.

- Improve the transparency of the Financial Stability Oversight Council's activities to identify and monitor excessive risks. Provide clarity on which governmental agency is responsible for monitoring and enforcing laws and regulations.
- Reexamine agency practices to ensure that all assets are properly evaluated in order to make certain that Shadow System players are accurately reflecting the risk of the assets they hold.

Item 3: Bond Market Liquidity

> **Some market participants have expressed concern that decreasing liquidity in the corporate bond market may pose a threat to financial stability. In the Council's view, how valid are these concerns? How should liquidity in this market be measured? What factors does the Council believe have contributed to current market conditions? Are there regulatory changes that could be made to increase liquidity, particularly in stress conditions, without undermining prudential goals?**

The corporate bond market is a large and integral component of economic growth, providing capital to allow companies to expand, innovate, create jobs, and provide the goods and services demanded by society.

Due in part to highly accommodative monetary policy, which has produced historically low real interest rates, the corporate bond market has grown substantially via the primary issuance of corporate debt. Since 2010, corporate debt issuance has totaled nearly $8 trillion. During this time frame, substantial changes have occurred, including market structure innovations, regulatory rules impacting financial institutions' capital and liquidity requirements, and rules impacting the ability and willingness of banks to make markets.

While liquidity is an important characteristic of any financial market, it is difficult to both define and measure with precision. In fact, different measurement techniques reach different conclusions regarding the breadth and depth of market liquidity. It is also important to distinguish between market liquidity and funding liquidity. For purposes of this analysis, the Council reviewed the following market liquidity metrics: trading volume, bond turnover ratio, the level of dealer inventories, bid-asked spreads, price impact, and trade size.

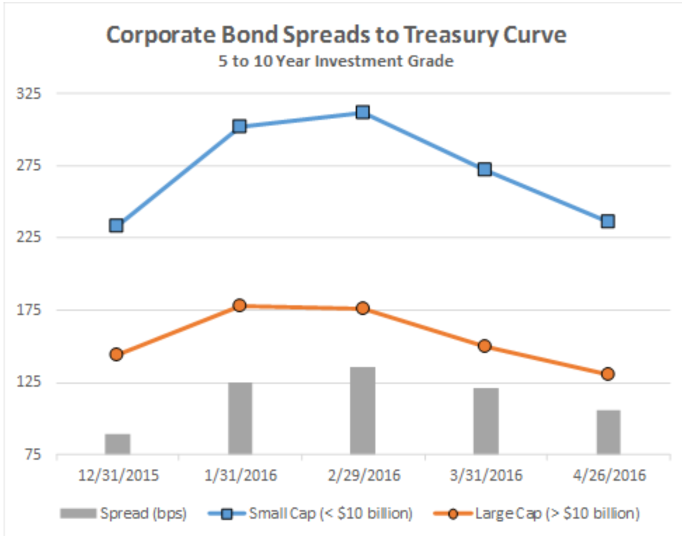
On the one hand, indicating reduced liquidity, the bond turnover ratio has decreased in U.S. and European secondary markets, dealer inventories of corporate bonds have substantially declined, and asset managers report it is harder to buy or sell large blocks without generating significant movement in prices. On the other hand, indicating increased liquidity, trading volume within U.S. secondary markets has been growing over the last five years, and bid-asked spreads have tightened since 2008. The apparent contradictions in the picture of secondary market liquidity may be attributable to cyclical factors, such as low interest rates, and to structural factors, such as the shift away from a dealer-based model towards an agency-based model. The hard numbers don't paint a clear picture, but what the Council has observed in the markets suggests liquidity has indeed fallen.

While most market participants believe that market liquidity has deteriorated, available data do not indicate conclusively that decreasing liquidity poses a systemic risk to the financial system. Quantifying the changes over the past five years and assessing the impact on liquidity is difficult, if for no other reason than a lack of good data. It is equally difficult to assess the impact of regulatory reform on market liquidity. It can be argued that liquidity was mispriced, primarily by large financial institutions, prior to the financial crisis and that liquidity is now being more accurately priced and that corporate debt holders are bearing the additional market risk. However, it is important to note that the past five years have been characterized by a sustained level of high demand for corporate bonds, including $3 trillion of inflows to bond mutual funds and ETFs globally. In this prolonged low interest rate environment, investors have increasingly turned to corporate bonds in search of higher yields. During this period, the liquidity demanded by buyers has largely been met by a surge in new corporate issuance that provided the other side of the trade.

Until the market is stress-tested by a period of significant and sustained outflows, the precise nature of the adequacy and resiliency of corporate bond market liquidity will remain unknown. When interest rates begin to increase and the value of corporate bonds decreases, the net flows into bond portfolios, supplied by primary debt issuance, will change to outflows into the secondary market. In addition, the record amount of corporate debt issuance will, by simple math, turn into record amounts of corporate bond maturities in the coming years. If this debt needs to be refinanced, it could add to a stressed liquidity scenario.

It is also important to note that most studies of market liquidity have focused on aggregate conditions. There is evidence of a growing bifurcation in the corporate bond market. Small-cap and mid-cap issuers appear to have experienced a disproportionately negative impact from the structural and regulatory changes meant to improve transparency in markets and financial stability in our financial system. These changes include TRACE (Trade Reporting and Compliance Engine) requirements, decimalization/SEC Regulation NMS, the Volcker Rule, Department of Labor fiduciary rules, and proposed mutual fund liquidity rules. In addition, the significant increase in the size of the corporate bond market, with a relatively smaller secondary market, has increased the liquidity premium for smaller issuers. Investors now demand a significant liquidity premium for bonds issued by smaller firms. Despite the fact that the corporate bond market has seen record issuance in recent years, most of this has been in large deals. The number of smaller new-debt issues coming to the market has fallen, illustrated by the fact that the average size of new-debt issuance has steadily increased. Our analysis shows:

- As of mid-April 2016, the average new investment-grade deal size was $921 million, the highest on record and more than 2.5 times the average seen in just 2013.
- Since 2010, the number of deals sized at $2 billion and above has doubled, whereas the number of smaller deals (below $2 billion) has fallen by nearly half.
- Credit spreads for small-cap issuers are on average 75 to 100 basis points wider than for large-cap issuers, controlling for credit rating and maturity, due to the liquidity differences perceived by investors, as indicated by the following chart:



The fact that smaller firms can't effectively finance themselves in the debt market has many potential implications for the economy – many of them negative. Because it is difficult to raise capital, small firms increasingly are finding it difficult to compete with larger firms. Instead, they are willingly being acquired by their larger competitors. (In fact, a lot of the corporate bond issuance is from large firms financing the acquisitions of small firms – the highest share in 15 years.) As a result, the economy is likely to see less job creation, less competition, less research and development and capital expenditures – and less dynamism overall.

Several agencies have studied the impact of market structure and rules on the ability of small companies to effectively and efficiently access the capital markets. The SEC is conducting a pilot study on tick size for small-cap equities. This pilot is in conjunction with the JOBS Act, which Congress passed to ease various regulations for small businesses. The Council believes it is noteworthy that the Wilshire 5000 currently includes approximately 3,600 stocks, down from more than 6,500 in 2000.

Given the benefits provided by massive cash inflows, the limited observations of liquidity stress events over the past five years, and the potential disproportionate impact on smaller issuers, the Council believes the tradeoff between the financial stability of the banking system and bond market liquidity should receive thoughtful consideration and careful examination. As such, the Council believes it is appropriate to review and evaluate the combined impact of regulatory capital and liquidity rules. Rules that, individually or in the aggregate, do not add significantly to financial stability but may be detrimental to financial market and funding liquidity should be reviewed. The Council's recommendations include reviewing or considering the following:

a. The leverage ratio requirement (LCR), unlike the risk-weighted capital requirements, does not allow for the netting of repo exposures in interbank/interdealer transactions, as it does not take into account collateral received or the creditworthiness of the counterparty. As a result, the LCR imposes a significantly higher capital requirement, especially for low-risk products.
b. In addition, the net stable funding ratio (NSFR) imposes a 10% funding charge on reverse repos secured by Treasuries, making it difficult to provide financing for high-quality assets and thereby reducing market liquidity.

c. The combination of the NSFR, LCR, and total loss-absorbing capacity significantly increase balance sheet liquidity but do not reduce capital requirements. G-SIB Method 2 does not consider LCR or NSFR compliance. Potential revisions to CCAR to incorporate G-SIB buffers addresses this issue a third time. The layering of capital and liquidity requirements, each individually sensible, needs to be reviewed in the aggregate.
d. TRACE requires virtually real-time disclosure of prices and trading volumes. While this rule was designed to foster a more transparent marketplace, it may actually reduce market depth and liquidity. The Council recommends that, during a stressed liquidity scenario, TRACE be suspended for illiquid securities with trade amounts over a certain threshold. The Council believes that the Volcker Rule should be suspended for market making in issues of small to mid-size companies. The Volcker Rule, while allowing for market making, imposes significant compliance costs and uncertainty, especially with the "expected demand" requirement. The financial stability benefits of applying the Volcker Rule to small- and mid-cap companies do not outweigh the cost of decreased liquidity in these issues.

Item 4: Monetary Policy

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

- U.S. economic recovery remains fragile, and downside risks to the economy are still present. Provided the data improve, the Council believes one or two well-timed and well-communicated increases in the federal funds rate between now and year-end would be prudent to accomplish the Fed's mandates, enhance central bank credibility, and create policy latitude in the event of an unexpected economic downturn.
- The Fed responded appropriately to recent stress in the financial markets by providing additional monetary accommodation that has supported a rebound in global credit and equity markets. Financial markets have exhibited a moderate recovery rate, although economic growth remains fairly muted.
- Investors see the stance of U.S. monetary policy as relatively restrictive. This is reflected by below-target inflation expectations, higher forward interest rates, and a very strong dollar, the latter being a major drag on the U.S. economy. They foresee slower real growth, lower inflation, and a lower trajectory for the federal funds rate than the FOMC's projections suggest.
- Council members are apprehensive about the interplay between the domestic and global economies. It is not clear whether the U.S. economy will foster stronger growth in the rest of the world or whether weaker growth in the rest of the world will slow the U.S. economy.
- Council members also recognize that negative interest rates at the European Central Bank, the Bank of Japan, and other central banks continue to exert downward pressure on U.S. interest rates.
- One Council member expressed concern that a shift toward a neutral policy stance may not provide sufficient support for an economy struggling to achieve the Fed's growth projections. GDP growth for the first quarter of 2016 may be close to zero, and the year-over-year growth rate may fall below 2%. Moreover, nominal GDP growth may not be adequate to service the heavy U.S. and global debt overhang.

- In short, a cautious approach to raising rates is appropriate given the degree of uncertainty in economic forecasts. However, with rates at current levels, the Fed has limited latitude to respond to weaker growth.

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