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The Importance of the Nonbank Financial Sector

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It is a pleasure to be here. My subject is the important role the nonbank financial sector plays in the United States financial system. As you know, the euro area financial system differs from the U.S. system in terms of the relative size and the role played by banks as compared with nonbank financial institutions. According to a recent report by the International Monetary Fund, banks in the euro area accounted for roughly 75 percent of total lending by banks and nonbanks that are part of the shadow banking system, whereas in the United States, banks accounted for just under half this measure of total lending in 2013.[1] The relatively large role played by nonbank financial institutions in the United States brings with it both economic benefits and risks to financial stability – risks that could be seen clearly during the Global Financial Crisis.

The nonbank sector in the United States was not always so large. The U.S. financial system has changed significantly in recent decades, with nonbanks as a whole gaining share and also becoming more interlinked with banks. This evolution has produced material benefits: increased market liquidity, greater diversity of funding sources, and – it is often claimed – a more efficient allocation of risk among investors. However, the evolution has also increased threats to the stability of the overall financial system, as demonstrated by the recent financial crisis. To promote financial stability, our tools for monitoring, regulation, and crisis management have had to evolve in recent years, and they will need to continue to evolve in the years to come.

[1] Note that not all nonbank financial institutions are included in the International Monetary Fund definition of shadow banks. In particular, insurance companies and pension funds are excluded. See International Monetary Fund (2014), *Global Financial Stability Report: Risk Taking, Liquidity, and Shadow Banking--Curbing Excess while Promoting Growth* (Washington: IMF, October), www.imf.org/external/pubs/ft/gfsr/2014/02/pdf/text.pdf, p. 67.

Today I will describe how nonbank intermediation in the United States has changed, what regulations are in place, and what reforms are under way to address the risks to financial stability associated with the growth of the nonbank sector. The lessons we have learned about the U.S. nonbank financial sector may be of interest to regulators in other countries who are promoting or reacting to the changing composition of financing – away from banks and toward nonbanks and market-based intermediation.

The Role of Nonbank Financial Intermediation in the U.S. Financial System

I apologize for starting by reminding us of material we all know. First, the provision of credit to nonfinancial businesses and households is critical to a well-functioning economy. Indeed, Ben Bernanke's research on the Great Depression came to the conclusion that it was the collapse of credit growth, rather than the slow growth of the money supply, that was primarily responsible for the financial crisis of the 1930s.

Second, the basic business model of a bank is straightforward: Banks take deposits from their customers and invest the proceeds in the economy via loans to businesses, households, and governments. Therefore, a bank's balance sheet typically has shorter-term, highly liquid deposits on the liability side and longer-term, illiquid loans on the asset side. This maturity transformation makes banks vulnerable to runs. In recognition of this vulnerability, bank deposits became insured and the lender of last resort function was extended to dealing with bank runs.

Third, nonbank financial institutions also act as intermediaries. Their importance as lenders has increased dramatically over the past 35 years. Data from the Financial Accounts of the United States indicate that in 1980, banks accounted for about 60 percent of total credit market assets held by the domestic financial sector, while nonbanks held

about 40 percent.[2, 3] Certain nonbank financial institutions have long been important credit providers; for example, in 1980, life insurance companies were vital to corporate bond and commercial real estate markets, accounting for about one-third of the debt outstanding in those two markets combined. While insurance companies remained important, other types of nonbank financial institutions, such as GSEs (government-sponsored enterprises, primarily Fannie Mae and Freddie Mac) and mutual funds, rose in prominence over the next few decades, so that total credit market lending by nonbanks greatly outpaced lending by banks over the 1980s and into the 1990s. By the late 1990s, nonbanks held around two-thirds of total credit market assets held by banks and nonbanks. Their share has stayed relatively stable since then.

The nonbank financial system includes a diverse group of entities such as insurance companies, finance companies, government-sponsored enterprises, hedge funds, security brokers and dealers, issuers of asset-backed securities, mutual funds, and money market funds. They provide credit through markets--for example, by purchasing commercial paper and bonds--or by extending loans directly to businesses and to households. These financial institutions evolved alongside banks, and their activities are in many respects intertwined with those of banks. Indeed, for every activity conducted

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[2] Credit market assets include commercial paper, Treasury securities, agency and GSE-backed securities, municipal securities, corporate and foreign bonds, consumer credit, mortgages, and other types of loans (issued by depository institutions) as well as other loans and advances. Banks and nonbanks held $37.9 trillion of credit market assets in 2014, with nonbanks holding $25.1 trillion and banks holding $12.8 trillion. For more information, see Board of Governors of the Federal Reserve System (2015), Statistical Release Z.1, "Financial Accounts of the United States" (March 12), www.federalreserve.gov/releases/z1.

[3] The domestic financial sector is defined here as domestic banks and nonbank financial institutions, excluding the monetary authority. Banks include U.S.-chartered depository institutions, foreign banking offices in the United States, banks in U.S.-affiliated areas, credit unions, and holding companies. Nonbanks include property and casualty insurance companies, life insurance companies, private pension funds, federal government retirement funds, state and local government retirement funds, money market mutual funds, mutual funds, closed-end funds, exchange-traded funds, government sponsored enterprises (GSE), agency- and GSE-backed mortgage pools, issuers of asset-backed securities, finance companies, real estate investment trusts, security brokers and dealers, and funding corporations.

by banks--with the exception of taking government-insured deposits--a nonbank financial institution likely conducts a similar activity.

In many cases, nonbanks engage in maturity and liquidity transformation and are levered, so they have vulnerabilities similar to those of banks, but lack the benefit of access to a lender of last resort. While banks may be more central to the payment system, nonbanks are also involved. Moreover, banks and nonbanks are interconnected in many ways--for example, through derivatives, lines of credit, and other services provided by banks to nonbanks--and many markets depend on banks that act as dealers or that provide other services. In addition, many nonbanks are owned by bank holding companies, which may provide capital and liquidity guarantees to nonbank subsidiaries.

Not surprisingly, the growth of the nonbank sector has tended to increase the complexity of the financial system. When banks provide loans directly to households and businesses, the chain of intermediation is relatively short and simple. With the growth of nonbank lending, intermediation chains have lengthened, often involving both banks and other nonbank financial institutions. For example, in the old days, a bank would originate a mortgage and hold it in its portfolio. Today, a bank might originate the same mortgage, but instead of holding that loan on its balance sheet, it could securitize it--in effect, sell it--and the resulting security might be purchased with the help of short-term funding provided by a money market mutual fund. And the process might not end there: Next that mortgage-backed security might be sold and repackaged into several new securities, and so on. In such examples, the number of institutions that might be involved in the provision of a single mortgage credit can easily go from one (the originating bank)

to at least five or more. And such long chains can create additional points of vulnerability in the financial system.

Nonbanks also increase the amount of maturity transformation conducted in the financial system without the stability-enhancing backstops offered to banks. Although some nonbanks are eligible to obtain advances from the Federal Home Loan Bank System, nonbanks are not backed by federal deposit insurance, nor do they have direct access to a lender of last resort to stem runs on their short-term liabilities. As a result, their funding can dry up rapidly should counterparties begin to believe the nonbank is in financial distress.

The failure of nonbank financial institutions could directly reduce the availability of credit and could cause fire sales of assets leading to impaired market functioning. In addition, because many nonbanks are connected to banks, a shock to the nonbank sector could in turn threaten the stability of the overall banking system – as happened in the unfolding of the Global Financial Crisis.

Nonbanks and the Start of the Global Financial Crisis

Before discussing the role of non-banks in the Global Financial Crisis, let me briefly mention a previous episode involving a non-bank--the failure of Long-Term Capital Management (LTCM). The New York Fed, under the leadership of then President William McDonough, dealt successfully with the LTCM problem. However the episode was scary and a warning about problems that could arise in the nonbank financial system and spread wider.

Now to the Global Financial Crisis: Although there were many dimensions to the financial crisis, the poor performance of subprime mortgages was one of the triggers.

The fact that losses in what was a relatively small part of the mortgage market quickly spread through the rest of the financial system illustrates how the complex interconnections among banks and nonbanks can amplify shocks in significant and unanticipated ways.

Some of the first cracks in the nonbank sector appeared in April 2007, when New Century Financial Corporation, at one point the second-biggest subprime mortgage lender, filed for bankruptcy after its creditors pulled back on fears about its losses.[4] A few months later, with subprime assets falling in value, money market investors refused to roll over the asset-backed commercial paper that had been funding many of these subprime assets. With this market shrinking dramatically, the banking sector was left on the hook to support entities that banks had sponsored or to which they had provided some form of credit or liquidity support.

Around that same time, Bear Stearns, then one of the five largest investment banks, liquidated two of its hedge funds that invested in mortgage-based securities, including collateralized debt obligations, another link in the chain of transactions. In March 2008, some creditors stopped funding Bear Stearns, and forced asset sales put additional downward pressure on asset prices.

By the dramatic month of September 2008, the chain of interconnections had helped spread the financial pain, and a broader range of firms were caught in the financial maelstrom. Fannie Mae and Freddie Mac entered conservatorship. Lehman Brothers failed when its creditors ran from it as they had from Bear Stearns. American

[4] New Century Financial Corporation was not the first failure linked to the subprime crisis, but it is one of the first large failures. For example, Ownit Mortgage Solutions, a California-based home lender partly owned by Merrill Lynch & Co., failed in December 2006.

International Group, or AIG, had to be bailed out primarily because of its inability to post enough collateral to cover liabilities on credit protection it had sold on many entities (including Lehman) and because it lost funding in the securities lending market. The Reserve Primary fund, a money market mutual fund, "broke the buck" as a result of its holdings of Lehman securities.

Banks were not immune to the financial market stress of this period, but they were far less involved in the unfolding of the crisis than were nonbanks – a phenomenon that highlighted the importance of the nonbank sector and the vulnerability of the financial system to its distress. When nonbanks pulled back, other parts of the system suffered. When nonbanks failed, other parts of the system failed.

Regulatory Reforms Implemented in the Wake of the Financial Crisis

A crisis as deep as the Global Financial Crisis was bound to produce widespread regulatory changes. It was clearly necessary to strengthen the banking system and to better analyze and understand the importance of the links between the banking sector and the nonbank financial sector. With respect to the nonbank financial sector, there was a clear need for greater transparency, less leverage, and more stable forms of liquidity transformation.

One important change to the banking sector was the adoption of a macroprudential perspective to supervision and regulation.[5] Central bankers and bank supervisors in the United States now regulate and supervise large complex banks not only as standalone entities, but also with consideration of how their actions could affect other

[5] There appear to be two meanings of the word "macroprudential." At first, it referred to a focus on systemic interactions within the financial system. It is in that sense that we are talking at this point. The second meaning is almost the opposite: It relates to regulatory but not monetary policy measures focused on some aspect of the financial system whose behavior is giving cause for concern.

firms and activities in a highly connected financial system. Within the Federal Reserve, a tangible manifestation of this macroprudential approach is the LISCC—the Large Institution Supervision Coordinating Committee—that was created specifically to coordinate the supervision of the largest banks and other systemically important institutions.[6]

Other changes to the banking system in the United States include tighter than Basel III capital and liquidity requirements, heightened prudential standards for the largest banking firms, and stress tests. Accounting standards and prudential regulations have also been changed to require banks to recognize their links to nonbank entities, such as direct connections or provision of back-up support. Heightened prudential standards require the largest and most interconnected banks to meet capital surcharges and stricter risk-management standards than other banks. Stress tests evaluate banks' ability to remain solvent and liquid when under severe macroeconomic stresses and have incentivized better risk-management and information systems within banks.

A variety of reforms have helped address risks in the nonbank sector as well. I will touch briefly on three of those reforms. First, the United States has an unusually large number of independent financial sector regulatory bodies. There is accordingly an especially great need for efficient cooperation and coordination among the various regulators that collectively oversee the financial system. In response to this need, the Dodd Frank Act created the Financial Stability Oversight Council (FSOC) to help

[6] The large firms whose supervision is coordinated by the Large Institution Supervision Coordinating Committee (LISCC) are American International Group, Inc.; Bank of America Corporation; The Bank of New York Mellon Corporation; Barclays PLC; Citigroup Inc.; Credit Suisse Group AG; Deutsche Bank AG; General Electric Capital Corporation; The Goldman Sachs Group, Inc.; JP Morgan Chase & Co.; MetLife, Inc.; Morgan Stanley; Prudential Financial, Inc.; State Street Corporation; UBS AG; and Wells Fargo & Company. For more information, see the LISCC webpage on the Board's website at www.federalreserve.gov/bankinforeg/large-institution-supervision.htm.

identify emerging risks and vulnerabilities to financial stability. The council's annual report on financial stability highlights risks and vulnerabilities for the entire financial system and reflects the council's own diverse nature: Only 3 of the 10 voting members of the council are banking sector supervisors, with the remainder supervising or having regulatory authority related to credit unions, broker-dealers, asset managers, and derivative market participants. Among its decisions, the FSOC has designated four U.S. nonbank financial institutions as systemically important financial institutions, which makes them subject to consolidated supervision by the Federal Reserve Board.[7] In addition, the Dodd Frank Act mandated the establishment of the Office of Financial Research in order to help promote financial stability through the measurement and analysis of risks, the conduct of essential research, and the collection and standardization of financial data.

A second nonbank reform has been the Securities and Exchange Commission's (SEC) adoption of new rules for money market mutual funds. Specifically, the SEC will require prime money market funds sold to institutional investors to publish a floating net asset value and to restrict withdrawals through a system of gates and fees. These rules, while as yet untested, are designed to reduce the likelihood of runs on prime money market funds.

The third nonbank reform I want to highlight relates to securitization, which I mentioned earlier as one way in which parts of the financial system can become interconnected. An important rule, finalized late last year, will require the securitizers of

[7] The four nonbank institutions that have been designated by the FSOC are MetLife, Inc.; American International Group, Inc.; General Electric Capital Corporation, Inc.; and Prudential Financial, Inc. For more information and to access the FSOC annual report, see the FSOC's webpage on the U.S. Treasury's website at www.treasury.gov/initiatives/fsoc/designations/Pages/default.aspx.

some assets to retain at least 5 percent of the credit risk of the assets that collateralize the securities.[8] With "skin in the game," the incentive to cut corners in extending loans is reduced, and the entire chain created when assets are securitized should be stronger. Transparency has also been enhanced with stronger disclosure requirements for securitizations.

At this stage of the recovery, there are signs of reduced nonbank financial sector vulnerabilities. Leverage is quite low in parts of the sector and appears moderate overall. Leverage at hedge funds, while difficult to measure, is an exception and appears in aggregate to have trended upward in recent years. Market-level information on short-term wholesale funding--such as commercial paper and repurchase agreements--indicate subdued activity after its level fell dramatically during the crisis. While issuance of securitizations has been picking up, its levels remains moderate.

The available data paint a picture of a nonbank sector that has generally reduced its vulnerability to the types of shocks that we saw during the crisis. However, the nonbank sector is evolving in response to new regulations, changes in investor preferences, and a multitude of other factors that are always influencing the financial system. For example, open-end mutual funds now hold a greater share of debt, and more

[8] In October 2014, six federal agencies—the Board of Governors of the Federal Reserve System, the Department of Housing and Urban Development, the Federal Deposit Insurance Corporation, the Federal Housing Finance Agency, the Office of the Comptroller of the Currency, and the Securities and Exchange Commission—approved a final rule requiring sponsors of securitization transactions to retain risk in those transactions. The final rule generally requires sponsors of asset-backed securities (ABS) to retain not less than five percent of the credit risk of the assets collateralizing the ABS issuance. As required by the Dodd-Frank Act, the final rule defines a "qualified residential mortgage" (QRM) and exempts securitizations of QRMs from the risk retention requirement. The final rule aligns the QRM definition with that of a qualified mortgage as defined by the Consumer Financial Protection Bureau. The final rule also does not require any retention for securitizations of commercial loans, commercial mortgages, or automobile loans that meet specific standards for high quality underwriting. For more information, see the press release on the Board's website at http://www.federalreserve.gov/newsevents/press/bcreg/20141022a.htm

derivatives are being cleared through central counterparties. These developments may ultimately prove to be stability enhancing, but as the system evolves, we must remain attentive to the possibility of changes that may be destabilizing.

More Needs to Be Done

To say that the nonbank sector today appears less vulnerable than it did during the Global Financial Crisis, is not to say that authorities in the United States have tamed the nonbank sector. Indeed, while progress has been substantial, areas for continued work remain, and I will briefly highlight three of them.

Let me start with short-term wholesale funding markets. While there have been some improvements in the plumbing of money markets, many nonbank financial firms, including hedge funds and broker-dealers, continue to rely on secured short-term funding to finance their activities, many of which involve longer-term and illiquid assets. This maturity transformation remains a key vulnerability. Further, many of the firms that rely on this maturity transformation are highly levered and thus more vulnerable to threats to their solvency. The proposed international framework being developed by the Financial Stability Board for margins on securities financing transactions may be an important tool for limiting the pro-cyclicality and sharp deleveraging that can occur in these markets.

Second, and more generally, we need to be alert to changes and trends in the financial system that may pose risks to financial stability, particularly those stemming from areas of the nonbank sector that are not subject to prudential supervision. For example, the asset management industry has both grown and evolved in recent years. Mutual funds and exchange-traded funds that track the returns of indexes of relatively illiquid assets have mushroomed in size. Examples include funds tracking the return on

leveraged loans, credit default swaps, and other less liquid assets. These funds offer daily or even intraday liquidity to investors while holding assets that are hard to sell immediately, thus making the funds vulnerable to liquidity risk. Recently, the FSOC issued a notice seeking comment on the products and activities of the asset management industry.

Third, there are also areas of the nonbank financial system into which we have only a limited view. While the data we have on hedge funds has improved, we still need to get a complete picture of the scope and size of hedge fund activities. Data coverage of the vast derivatives market could also be improved. The paucity of information in some areas limits the ability of supervisors and regulators to work effectively toward the stability of financial institutions and the financial system. For example, outside of the banking system, we have only limited information on leverage and maturity transformation rather than precise estimates for all types of nonbank entities.

Conclusion

To conclude, the U.S. financial system has changed a great deal over the past several decades. One of the most important changes has been the rapid growth of the nonbank sector. Many reforms have been adopted for both banks and nonbank financial institutions. But regulation is a cat and mouse game. Regulators need to respond to existing regulatory gaps and to keep pace with further changes. We hope we will succeed in doing so. But we know that we will never be able to identify in advance all the threats to stability that are out there, and that it is therefore all the more critical to maintain and strengthen the robustness of our financial institutions, and of the financial system as a whole.