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Pursuing Financial Stability at the Federal Reserve

Remarks by

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Let me begin by thanking the Federal Reserve Bank of Chicago for inviting me to participate in this important conference on the role of central banks in financial stability. As you know, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) assigned the Federal Reserve a central role in the new framework for achieving and maintaining financial stability. I am grateful for this opportunity to explain how we, together with other regulators, have been moving forward to fulfill our new responsibilities.¹

The Dodd-Frank Act instituted substantial changes to financial-sector supervision and regulation in the United States in direct response to the serious deficiencies in the regulatory framework that were revealed, all too painfully, by the financial crisis and the associated deep recession. One key change was the requirement that U.S. financial regulators take a “macroprudential approach” to supervision and regulation. In my remarks today, I want to describe how this approach is being put into practice at the Federal Reserve. I will touch on both our own regulatory and supervisory responsibilities and our responsibilities as a member of the multiagency Financial Stability Oversight Council (FSOC), which the Dodd-Frank Act established to promote a more comprehensive approach to monitoring and mitigating systemic risk.

I should note that an important part of putting the macroprudential approach into practice is establishing a new regulatory infrastructure, including the FSOC and its working-committee structure. In addition, individual regulatory agencies have made organizational changes needed to fulfill their new responsibilities. At the Federal Reserve, we have reoriented our supervision of large bank holding companies, and we

¹ I am indebted to Federal Reserve Board staff members Rochelle Edge, Andrea Kusko, Andrew Levin, and Nellie Liang for their assistance in preparing these remarks, which reflect my own views and not necessarily those of others in the Federal Reserve System.

have created a new office called the Office of Financial Stability Policy and Research, which plays a key role in monitoring financial risks, analyzing the implications for financial stability, and identifying approaches for mitigating identified risks.

Overview of the Macroprudential Approach

The explicit incorporation of macroprudential considerations into our structure for financial regulation and oversight represents a major innovation in our thinking about how financial stability is most effectively achieved. In contrast to the traditional, or “microprudential,” approach to regulation and supervision, which focuses on the safety and soundness of *individual* financial institutions, markets, and infrastructures, the macroprudential approach also calls for attention to the financial system *as a whole*.

In particular, financial institutions are typically linked together in a complex web of relationships, and hence the sudden failure of a single institution can generate spillover effects on other firms and potentially place the entire financial system at risk. Such externalities are most evident for very large institutions and financial market utilities but may also arise within a set of small or medium-sized firms that are engaged in activities with highly correlated returns. Therefore, the macroprudential approach focuses on achieving financial stability by reducing systemic risk--that is, the risk of a financial disruption that is severe enough to inflict significant damage on the broader economy. Ideally, this approach is done through preemptive policies that restrain risks to the financial system before they develop into crises.

Macroprudential policies address several forms of systemic risk. One form of risk can be described as structural--such as the presence of systemically important financial institutions (SIFIs) or systemically important payment, clearing, or settlement

infrastructures or activities, whose failure or financial distress could have outsized destabilizing effects on the rest of the financial system. Another form of risk can be described as cyclical and includes, for example, elevated asset prices and excessive credit growth that arise in robust economic times but can leave the balance sheets of both large and small financial firms vulnerable to downturns in the credit cycle. Attentiveness to these various channels is critical in the monitoring of systemic risk and the formulation of appropriate macroprudential policy responses. In particular, some risks are best allayed by policies that are structural in nature and thus do not change as economic conditions evolve, whereas others are best addressed by policies that are sensitive to economic developments. Indeed, selecting the right policies to address specific forms of systemic risk is important for ensuring that reasonable risk-taking and innovation continue to take place in financial markets so as to foster broader productivity gains, economic growth, and job creation.

A key question for central banks is how macroprudential policies fit together with monetary policy. The evolving--though by no means settled--consensus is that monetary policy is too blunt a tool to be routinely used to address cyclical risks to financial stability, and that more-targeted micro- and macroprudential tools should be used to address these risks. I agree that targeted prudential policies should be the first line of defense against threats to financial stability. However, because their effectiveness in practice is not yet proven, I would not rule out the possibility that monetary policy could be used directly to support financial stability goals, at least on the margin.

Identifying and Addressing Structural Forms of Systemic Risk

I want to turn now to structural sources of systemic risk and discuss how macroprudential policy can be used to mitigate them. Structural vulnerabilities may go largely unnoticed until they are exposed in financial crises--and at considerable cost. Indeed, many of the regulations now being implemented under the Dodd-Frank Act, as well as the international agreements relating to bank capital and liquidity standards, are a reaction to the events of 2007 through 2009. Such responses include regulations and reforms that address risks resulting from the existence of SIFIs and systemically important financial market utilities (FMUs) as well as other efforts to improve the resilience of important financial markets and infrastructure.

Because the material distress or failure of a SIFI can have outsized effects on the financial sector and the real economy, the Dodd-Frank Act empowers the Federal Reserve to reduce the probability of such events through tougher prudential standards, including enhanced risk-based capital and leverage requirements, liquidity requirements, an early remediation regime, and restrictions on activities. The act also requires the Federal Reserve to consider systemic risk effects when reviewing and ruling on applications for mergers among financial firms. In addition, to ensure that the failure of a SIFI can occur without serious damage to the financial system, the act gives the Federal Reserve and the Federal Deposit Insurance Corporation new tools, such as improved resolution planning by firms and an orderly liquidation authority. The act also requires centralized clearing of standardized over-the-counter (OTC) derivatives and introduces margin requirements for noncleared derivatives and other measures to strengthen the integrity and functioning of financial markets.

Efforts to develop these rules have been progressing well. The Federal Reserve will soon release for comment its proposed rule on enhanced prudential standards that would apply to large bank holding companies and systemically important nonbank financial firms. It also recently approved a final rule implementing the resolution plan requirement. Let me note that in these instances, as in all its rulemaking responsibilities, the Federal Reserve is attentive to aligning the rules required by the Dodd-Frank Act with international agreements, such as higher capital standards and new liquidity standards for large banks and capital surcharges for the largest global SIFIs.

The Federal Reserve, working with other financial regulators, has issued a number of proposed and final rules relating to such areas as the centralized clearing of derivatives, swap margin requirements, and the designation of systemically important FMUs and nonbank financial firms. The proposed rule for designating nonbank financial firms was put out for comment in October.² This rule specifies a process for designating such institutions, starting by analyzing firms that exceed a size threshold and exhibit characteristics, including excessive leverage and reliance on short-term funding, that could contribute to systemic risk if the firm were to become distressed.

Less-discernible progress has been made to date, however, in addressing other key vulnerabilities that came to the fore during the financial crisis. Indeed, short-term funding markets remain an important source of structural risk. Despite some significant reforms that enhance liquidity and impose additional restrictions on portfolios, money market funds are still susceptible to liquidity constraints largely because of attributes like

² See Financial Stability Oversight Council (2011), “Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies,” second notice of proposed rulemaking and proposed interpretive guidance (FR Doc. 2011-26783), *Federal Register*, vol. 76 (October 18), pp. 64264-83, www.gpo.gov/fdsys/pkg/FR-2011-10-18/pdf/2011-26783.pdf.

their rounded net asset value (NAV) feature and the low risk tolerance of their investors. Options for further reforms being considered by the Securities and Exchange Commission (SEC) include a mandatory floating NAV to mute the incentive for investors to be the first to redeem, capital buffers to allow funds to deal better with actual and potential losses while sustaining a stable NAV, and limits on redemptions both to provide more time for fund managers to address problems and to emphasize to investors that money market funds do not guarantee bank-like liquidity.³

The triparty repurchase agreement (repo) market also continues to exhibit important vulnerabilities. In particular, the settlement process for triparty repo trades continues to rely on massive amounts of intraday credit and, as a result, remains vulnerable to a decision by a clearing bank to withhold funding from a market participant in default or perceived as facing distress. The FSOC has recommended reforms to deal with these problems, and an industry task force has taken some key initial steps in that direction--for example, by coordinating the implementation of a robust confirmation process for triparty trades. But more needs to be done. Indeed, given the centrality of this market to the financial system, taking further steps to reduce its vulnerabilities should be given a high priority.

In addition to addressing the unfinished business from the financial crisis, financial stability authorities and market participants need to be alert to new structures and products, not just those that caused problems in the past. New financial products--for example, exchange-traded funds and collateralized commercial paper--may foster more

³ Box D of the FSOC 2011 annual report provides a fuller discussion of the financial-sector vulnerabilities implied by money market funds. See Financial Stability Oversight Council (2011), *Financial Stability Oversight Council 2011 Annual Report* (Washington: FSOC), "Box D: Money Market Funds," pp. 50-51, www.treasury.gov/initiatives/fsoc/Documents/FSOCAR2011.pdf.

efficient intermediation, but they may also raise systemic risk if they increase the complexity and interconnectedness of the financial system.

Authorities need to collect data and monitor risks associated with new products before the risks become salient. To improve the quality of financial-sector data and facilitate the analysis of data for the FSOC and its member agencies, the Dodd-Frank Act created the Office of Financial Research within the Treasury Department. The office has initiated a project to design a global classification system based on unique legal entity identifiers to identify parties to financial contracts. This system would allow market participants to better measure on a consolidated basis their counterparty risk across products and other dimensions. In addition, the SEC and the Commodity Futures Trading Commission recently issued a new reporting form for hedge funds and certain other private investment funds, which will provide more information on their size, concentration, funding, and investments; this additional information should shed some valuable light on an important segment of the financial sector for which we have not had consistent data.

Identifying and Addressing Cyclical Forms of Systemic Risk

Turning next to cyclical forms of systemic risk, we are working to develop good measures of such risks, to monitor them on an ongoing basis, and to be aware of how they could unwind in a destabilizing way. On that score, at the Federal Reserve, we regularly monitor measures of leverage and maturity mismatch at financial intermediaries, and we look at asset valuations, underwriting standards for loans, and credit growth for signs of a credit-induced buildup of systemic risk. We also monitor various systemic risk measures for the largest banking firms. These measures capture

financial market perceptions of the risk such a firm could impose on the broader financial system were it to become stressed. Such measures are based on firms' stock prices, credit default swap premiums, and stock price volatility, as well as the correlation in asset prices across firms.

In addition, we use regular stress tests of the nation's largest banking organizations to evaluate the ability of these firms to withstand worse-than-expected outcomes for the economy. These tests are based on detailed confidential data about the balance sheets of the large banks and provide a comprehensive and rigorous assessment of how their financial conditions would evolve over a multiyear period if economic and financial conditions were to deteriorate. The stress tests started in 2009 with the Supervisory Capital Assessment Program (SCAP), and they continued with the Comprehensive Capital Analysis and Review (CCAR) in late 2010 and early 2011, in which we evaluated the capital planning processes of the firms and responded to requests to resume or increase shareholder payouts.

In a couple of weeks, we will begin CCAR 2012, building on the previous CCAR, and roughly a year from now, we will conduct the annual supervisory stress tests mandated by the Dodd-Frank Act. The Dodd-Frank tests will involve a larger group of banking organizations than the 19 firms covered in the SCAP and will be extended to include any financial institution the FSOC designates as systemically important. As additional data are collected on significant credit exposures, stress tests may evolve into an effective way to identify linkages across systemically important institutions that could lead them to fall into financial distress at the same time.

Another important element in identifying financial-sector vulnerabilities is the continued vigilance to the financial risks that might emerge in parts of the financial sector for which data are very scarce or that have developed more recently and are thus less well understood. The regulatory community has been working hard to fill these knowledge gaps. For example, in response to the need to improve the monitoring of leverage, particularly outside of the traditional banking system, the Federal Reserve instituted in 2010 a quarterly survey on dealer financing terms (the Senior Credit Officer Opinion Survey on Dealer Financing Terms).⁴ This survey collects qualitative information on the leverage that dealers provide to financial market participants in the repo and OTC derivatives markets. This information complements the data on counterparty credit exposures that supervisors collect on a confidential basis from large, complex financial institutions and higher-frequency data on liquidity profiles. In addition, the Board staff is working in the context of the flow of funds accounts to develop measures of reliance by nonfinancial businesses on nonbank, volatile sources of funds--that is, the shadow banking sector. Such measures would permit us to track this source of risk through the business cycle.

Cyclical vulnerabilities seem relatively quiescent at present. Still, such vulnerabilities could easily emerge, especially once the economy starts to expand more robustly. Regulators need to look ahead and be ready to respond. A number of macroprudential policy tools could, in principle, be used to address heightened cyclical vulnerabilities--some of which have been used in other countries and others that have been proposed but not yet tried. Examples of tools that have been used in other countries

⁴ The Senior Credit Officer Opinion Survey is available on the Board's website at www.federalreserve.gov/econresdata/releases/scoos.htm.

include time-varying caps on mortgage loan-to-value ratios and household debt-to-income ratios, which have been used in Korea and Hong Kong, and dynamic provisioning for losses by banks, which has been employed in Spain. The Basel III package of reforms that was agreed to last year includes a countercyclical capital buffer that can be imposed when excessive growth of risk-taking in credit markets results in an unacceptable level of systemic risk. Another policy that has been put forward but not yet tried is countercyclical margins and haircuts for funding contracts, as proposed by the Committee on the Global Financial System.⁵

Of course, U.S. policymakers will need to examine such policy tools in depth before implementing them here. As a first step, policymakers need to establish that countercyclical policy tools address cyclical vulnerabilities more effectively than simpler tools that are constant over the course of the cycle do.⁶ In addition, in taking lessons from abroad, policymakers need to be aware of institutional differences that may prevent tools from having the same effects in the United States as they do elsewhere. A further issue is that the literature on the efficacy of macroprudential tools in limiting the buildup of cyclical systemic risks is still at an early stage. Even for policies that have been used in other countries, the number of papers that evaluate their effectiveness is relatively small, and isolating the effect of a specific policy amid an array of economic and financial developments is a persistent challenge. Nonetheless, these papers are encouraging--at least to the further consideration of the use of cyclical policy tools--and

⁵ See Committee on the Global Financial System (2010), "The Role of Margin Requirements and Haircuts in Procyclicality," CGFS Papers No. 36 (Basel, Switzerland: Bank for International Settlements, March), www.bis.org/publ/cgfs36.pdf.

⁶ Examples of constant, through-the-cycle policy tools are *time-invariant* caps on loan-to-value (LTV) and debt-to-income (DTI) ratios and *time-invariant* floors on margins and haircuts, which can likely play some role in limiting the buildup of cyclical vulnerabilities (even if they do not go as far as countercyclical policies).

this literature, which also includes more theoretical analyses of such policies, is a vibrant and growing one that should yield useful insights in coming years.⁷

Current Challenges

Let me finish with a few words about current challenges to financial stability. In particular, concerns about European fiscal and banking issues have contributed to strains in global financial markets that pose significant downside risks to the U.S. economic outlook.

U.S. banking institutions have manageable levels of direct exposure to the peripheral European countries but more substantial links to financial institutions in the larger European economies. In addition, some major European banks that obtain appreciable short-term wholesale U.S. dollar funding from U.S. money market funds appear to be facing significant funding pressures. In light of such international linkages, further intensification of financial disruptions in Europe could lead to a deterioration of financial conditions in the United States.

⁷ Current empirical work on this topic includes a number of interesting country case studies on LTV and DTI policies. For example, see Bank of Korea and International Monetary Fund (2011), “Managing Real Estate Booms and Busts,” summary from the BOK-IMF workshop, Seoul, Korea, April 11-12, www.imf.org/external/np/res/seminars/2011/bok/041111.pdf. For a difference-in-difference econometric analysis of dynamic provisioning in Spain (with implications for countercyclical capital buffers), also see Gabriel Jiménez, Steven Ongena, José-Luis Peydro, and Jesús Saurina (2011), “Macroprudential Policy, Countercyclical Bank Capital Buffers and Credit Supply: Evidence from the Spanish Dynamic Provisioning Experiments,” unpublished paper, Banco de España, March, http://finance.univie.ac.at/fileadmin/user_upload/inst_finanzwirtschaft/Oktober_Konferenz/J.L.Peydr%C3%B3_Alcalde_macroprudential_policy__countercyclical_Bank_Capital_2011-03-09_final.pdf. An example of model-based analysis is a study of LTV ratios in the context of calibrated general-equilibrium macro models by Luisa Lambertini, Caterina Medicino, and Maria Teresa Punzi (2011), “Leaning against Boom-Bust Cycles in Credit and Housing Prices,” Banco de Portugal Working Papers 8/11 (Lisboa, Portugal: Banco de Portugal, March), www.bportugal.pt/en-US/BdP%20Publications%20Research/wp201108.pdf; another example of model-based analysis is a study of countercyclical capital buffers in the context of calibrated general-equilibrium macro models by Ian Christensen, Césaire Meh, and Kevin Moran (2011), “Bank Leverage Regulation and Macroeconomic Dynamics,” paper presented at the Regulation of Systemic Risk Conference sponsored by the Board of Governors of the Federal Reserve System and the Journal of Money, Credit and Banking, Washington, September 15-16, www.federalreserve.gov/events/conferences/2011/rsr/papers/ChristensenMehMoran.pdf.

The European rescue package announced in late October indicates a strong commitment by European leaders to address the issues stemming from sovereign debt. The package was a step in the right direction, but many details of the plan were unclear, and the measures would require rigorous implementation. The continued rise in sovereign debt spreads for some countries, more generalized market volatility, and political turmoil that we have seen in recent days speak to the need for forceful action to stabilize the situation.

We, along with other supervisors, are actively engaged in ensuring that U.S. financial institutions are appropriately managing their credit and liquidity risks. To limit the spread of funding stresses, we have in place dollar liquidity swap lines with a number of foreign central banks. We are monitoring European developments very closely, and we will continue to do all that we can to mitigate the consequence of any adverse developments abroad on the U.S. financial system.

Conclusion

The Federal Reserve and other U.S. financial regulators have accomplished a great deal since the Dodd-Frank Act was enacted a little more than a year ago. We have put into practice an institutional framework for undertaking a macroprudential approach to supervision and regulation, and we have implemented processes for identifying and responding to sources of systemic risk. However, much remains to be done, including further work to close the gaps in the data coverage of the financial sector and to deepen our understanding of the effectiveness of different policy tools. The bottom line is that developing an effective macroprudential policy is critical to preserving financial stability

and supporting overall U.S. economic activity. Accomplishing this objective will be a considerable challenge, but it is one of great importance.