

Lael Brainard: The Federal Reserve's financial stability agenda

Speech by Ms Lael Brainard, Member of the Board of Governors of the Federal Reserve System, at the Hutchins Center on Fiscal and Monetary Policy, The Brookings Institution, Washington DC, 3 December 2014.

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Although its founding statute makes no explicit mention of financial stability, the Federal Reserve was created in response to a severe financial panic, and safeguarding financial stability is deeply ingrained in the mission and culture of the Federal Reserve Board. Today, financial stability is more important than ever to the work of the Federal Reserve Board. With the lessons from the crisis still fresh, we are in the process of strengthening our financial stability capabilities.¹

In carrying out the work of financial stability, the Federal Reserve is seen as the agency with the broadest sight lines across the economy and one that has some important stability tools, as well as a critical first responder when a crisis hits. But the Federal Reserve also faces limitations as a financial stability authority: It is predominantly a supervisor of banks and bank holding companies² in a system with large capital markets, several independent agencies have responsibilities for regulation of nonbank financial intermediaries and markets, and no U.S. agency yet has access to complete data regarding bank and nonbank financial activities.

Recognizing these limitations, the Federal Reserve is likely to actively utilize the tools under its authority, which means placing a strong emphasis on structural resilience in the largest and most complex institutions, while strengthening less tested time-varying tools to lean against the buildup of risks and, in some circumstances, looking to the unique capacity of monetary policy to act across the financial system. It will also need to cooperate closely with other regulators to develop well-rehearsed working protocols and a joint sense of responsibility for financial stability, while respecting that each independent agency has its own specific statutory mandate and governing body.

Financial stability agenda

In the wake of the financial crisis, the Congress and the Federal Reserve itself became more deliberate and explicit about the responsibility for safeguarding the stability of the financial system. The Dodd-Frank Act, enacted in July 2010, charged the Federal Reserve with specific authorities for the purposes of safeguarding financial stability. At the Federal Reserve, we created the Office of Financial Stability Policy and Research to strengthen our cross-disciplinary approach to the identification and analysis of potential risks to the financial system and the broader economy and to support macroprudential supervision of large financial institutions and, following its creation, participation on the Financial Stability Oversight Council (FSOC). This work is carried out by staff in that office as well as in many areas across the Board and is overseen by the Board's newly created Committee on Financial Stability. This work is proceeding in four pillars, which are in varying stages of advancement.

¹ See Ben S. Bernanke (2013), "[A Century of U.S. Central Banking: Goals, Frameworks, Accountability](#)", speech delivered at "The First 100 Years of the Federal Reserve: The Policy Record, Lessons Learned, and Prospects for the Future", a conference sponsored by the National Bureau of Economic Research, Cambridge, Mass., July 10.

² More precisely, it is predominantly a supervisor of depository institutions and depository institution holding companies.

First pillar: surveillance

The first pillar is surveillance of the possible risks that could threaten financial stability. Research and historical case studies suggest that increasing valuation pressures accompanied by rising leverage, widening maturity mismatches, and the erosion of underwriting standards often provide important warning signals. Drawing on this information and other analysis, each quarter Federal Reserve Board staff systematically assess a standard set of financial vulnerabilities, including asset valuations and risk appetite, leverage, maturity and risk transformation, and interconnectedness in the broad financial system, and borrowing by households and businesses.

The research that informs this work, by helping to identify financial patterns likely to be associated with rising risks of financial crisis, continues to grow. But its predictive power is still limited; it remains difficult to identify ahead of time credit booms that are likely to cause severe damage, such as the subprime housing crisis, from those that do not, such as the high-tech boom, in part because risk-taking by financial market participants cannot always be well-observed.³

Over time, our and others' surveillance will benefit as the Office of Financial Research established by the Dodd-Frank Act, makes progress in facilitating the sharing of previously siloed data sets among the independent regulators and as international impediments are overcome, allowing more comprehensive analysis of financial transaction flows across different types of financial intermediaries and activities.

This regular, systematic surveillance of financial vulnerabilities is buttressed by three other valuable types of analysis. First, we use the detailed information gathered through bank examinations and loan reviews that are the regular work of our supervisors to assess emerging risky practices; these reviews helped identify deteriorating underwriting standards in the leveraged loan market. Second, we undertake periodic analyses of potential systemwide consequences of possible, particularly salient shocks, such as a sharp rise in the level or volatility of interest rates, including possible bottlenecks that could impede orderly adjustments. Finally, when there is a close brush with specific risk events, we closely study the behavior of markets and institutions for insights into possible structural vulnerabilities that might be revealed and assess possible policy actions.

Second pillar: macroprudential policy

The ultimate objective of our surveillance is to build resilience of firms and markets and to counter risks early enough to prevent disruptions to financial stability that could damage the real economy. While the macroprudential toolkit is larger than it was pre-crisis, there is a substantial amount of work remaining to implement some of these tools. In particular, as I will discuss in more detail, the ability of the available tools to counteract time-varying risks has yet to be tested in the U.S.

First, the Federal Reserve is well along in promulgating an important system of new, through-the-cycle safeguards that together should deliver much greater structural resilience and make excessive risk-taking costly for the large, complex institutions that pose the greatest risks to the financial system. Second, the Federal Reserve is assessing the kinds of broad time-varying regulatory tools that might further buttress resilience during periods in which risks associated with rapid credit expansion are building. Third, the Federal Reserve is exploring tools that can be varied over the cycle to target specific activities, recognizing that we will have limited authorities relative to some foreign financial regulators in operating on

³ According to the International Monetary Fund, only about one in three credit booms have historically ended in some form of financial crisis. See Giovanni Dell'Ariccia, Deniz Igan, Luc Laeven, Hui Tong, Bas Bakker, and Jérôme Vandenbussche (2012), "[Policies for Macrofinancial Stability: How to Deal with Credit Booms](#)", IMF Staff Discussion Note Series 12/06 (Washington: International Monetary Fund, June 7).

the borrowing side and outside the regulatory perimeter of the banking system. Let's take each in turn.

Tool one: structural resilience

We are relatively far advanced, and compare favorably to other jurisdictions, in implementing a framework of rules and supervision that compels large, complex financial institutions to build substantial loss-absorbing buffers and to internalize the costs of undertaking activities that pose risks to the system. This framework represents a substantial improvement on structural resilience relative to the pre-crisis framework across a number of dimensions: It is forward looking in assessing risks under severely stressed conditions, and it is explicitly macroprudential in design so that bank management internalizes risks not only to the safety and soundness of their own institution, but also to the system as a whole.

Reforms undertaken in recent years help ensure that institutions that are large, internationally active, and interconnected face significantly higher capital and liquidity charges when undertaking risky activities. The core of the framework is the requirement of a very substantial stack of common equity to absorb shocks and to provide incentives against excessive risk-taking. The new framework imposes "belts and suspenders" on the capital cushion by requiring a simple, non-risk-adjusted ceiling on leverage as well as requiring the largest banking firms to satisfy two sets of risk-based capital requirements: one derived from internal models and a second based on standardized supervisory risk weights. Beyond that, the largest, most complex firms will face an additional common equity requirement that reflects the risk they pose to the system and an additional layer of loss absorbency on top of that to provide adequate support to operating subsidiaries in resolution. Large financial institutions are also required to maintain substantial buffers of high-quality liquid assets calibrated to their funding needs and to their likely run risk in stressed conditions. Similar to the equity cushions, the liquidity buffers are calibrated to affect disproportionately those financial institutions that pose the greatest risks.

Regular stress tests of both capital and liquidity at our largest banking firms provide a key bulwark in the new supervisory architecture.⁴ Minimum capital requirements must be met under severely adverse macroeconomic conditions and, for the very largest firms, in the face of severe market shocks, including the failure of a firm's largest counterparty. By providing a forward-looking assessment that takes into account correlations among risks under stressed conditions, these stress tests on capital and liquidity are powerful tools for building resilience in our largest banking firms. But they also have some limitations. For instance, while the severity of the stresses can be varied from year to year, it is difficult to introduce entirely new scenarios each year to target specific sectoral risks without introducing excessive complexity. And while the new U.S. framework requires that capital buffers are calibrated for the riskiness of their assets and exposures, the proportion of capital required does not vary systematically to counter the cyclicalities that arise through elevated asset valuations and other channels.⁵

⁴ The Comprehensive Liquidity Analysis and Review, or CLAR, is the Federal Reserve Board's periodic simultaneous supervisory examination of firms' liquidity buffers and risk-management policies. We use CLAR to analyze and adjust our supervisory program for emerging firm practices and risk areas not captured in the Liquidity Coverage Ratio (LCR). For example, CLAR enables monitoring of firm liquidity positions for buildups of concentrations of risk beyond the 30-day threshold. It also allows us to look more closely at risks that may emanate from areas such as intraday credit, which are not captured within the LCR but are captured by firms' internal stress-testing frameworks.

⁵ As the Board laid out in its November 2013 policy statement on the scenario design framework for stress testing, it uses a recession approach to develop the severely adverse scenario of the stress tests. See Board of Governors of the Federal Reserve System (2013), "[Federal Reserve Board Issues Final Policy Statement for Developing Scenarios for Future Capital Planning and Stress Testing Exercises](#)", press release, November 7. The severely adverse scenario is anticipated to feature an unemployment rate over the first six

Tool two: time-varying broad macroprudential tools

While our efforts are far advanced in building structural resilience, progress is less advanced in developing time-varying tools that counter the buildup of excesses across the system broadly or in a particular financial sector. These efforts are in earlier stages of elaboration and more of a departure from recent practice. Here we can learn from financial authorities in other countries that have recent experience deploying a broader array of macroprudential tools.

The classic case for time-varying broad macroprudential tools is to lean against a dangerous acceleration of credit growth at a time when the degree of monetary tightening that would be needed to slow it down would be highly inconsistent with conditions in the real economy. The Basel Committee agreed on a common countercyclical capital buffer framework for addressing such circumstances, and the Federal Reserve and the other U.S. banking agencies issued a final rule to implement the Basel 3 countercyclical capital buffer for U.S. banking firms in 2013. Under the rule, starting in 2016 and phasing in through 2019, the U.S. banking agencies could require the largest, most complex U.S. banking firms to hold additional capital in amounts up to 2.5 percent of their risk-weighted assets if the agencies determine it is warranted by rising risks. We are currently considering how best to implement the countercyclical capital buffer. The existing research would suggest that indicators related to debt growth, leverage, and other signs of growing financial imbalances would provide guidance on when to implement the buffer and when to deactivate it.

The countercyclical capital buffer may enhance financial stability by building additional resilience at systemic banking institutions near the height of the credit cycle. However, it may prove to be less effective in leaning against credit growth, since, as credit booms progress, there is greater potential for capital to be relatively cheap, asset valuations to be inflated, and risk weights to be incorrect. Moreover the countercyclical capital buffer has some practical limitations: It applies to a subset of the U.S. banking system and is designed to act with a one-year lag. It also cannot be used efficiently to target specific asset classes that appear frothy, a challenge I turn to next.

Tool three: time-varying sector-specific tools

The countercyclical buffer may be a relatively blunt tool for circumstances where the buildup of risk is highly concentrated in a particular sector. This was, of course, the challenge U.S. policymakers faced early in the recent housing bubble, with home prices rising and capital markets developing the complicated, opaque securities built on subprime mortgages that would ultimately cause damage throughout the financial system. Indeed, property booms are perhaps the most common macroprudential challenge that have confronted financial authorities in advanced economies over the years, although macroprudential challenges

to eight quarters of the scenario that increases between 3 percentage points and 5 percentage points, which is the amount by which unemployment has increased in the most recent three severe recessions. However, if such an increase does not raise the level of the unemployment rate to at least 10 percent – the average level to which it has increased in the most recent three severe recessions – the path of the unemployment rate in most cases will be specified so as to raise the unemployment rate to at least this level. Under this methodology, the increase in the unemployment rate would be slightly greater if the initial unemployment rate were low – as it would be after a sustained long expansion. Moreover, setting a floor for the unemployment rate recognizes the fact that not only do cyclical systemic risks build up at financial intermediaries during robust expansions, but that these risks are also easily obscured by the buoyant environment. Note, however, that while the approach to specifying the severely adverse scenario is designed to avoid adding sources of procyclicality to the financial system, it is not designed to explicitly offset any existing procyclical tendencies. The purpose of the stress-test scenarios is to make sure that banks are properly capitalized to withstand severe economic and financial conditions, not to serve as an explicit countercyclical offset to the financial system.

have also surfaced in other sectors, such as the corporate lending boom that confronted Korea in the mid-to-late 1990s.

In addition to time-varying broad macroprudential tools, such as countercyclical capital buffers and dynamic provisioning, many financial authorities have the authority to promulgate rules that target activity in a specific sector. For instance, Swiss authorities activated, in early 2013, a countercyclical capital buffer that added 1 percentage point of capital requirement for direct and indirect mortgage-backed positions secured by Swiss residential property, and then increased this amount in 2014 to 2 percentage points.

Time-varying lending-side tools

In the United States, there is a more limited set of authorities the Federal Reserve could exercise either on its own or jointly with the other banking agencies to address sector-specific risks. Most commonly, as we have seen with leveraged lending, the banking regulators acting together can use the tools of supervisory guidance and intensive supervision to discourage banks from taking on additional risk on safety and soundness grounds. Moreover, the annual supervisory stress tests can be tailored to increase the severity of losses in specific portfolios of loans or the market shock. However, these authorities fall short of direct restrictions on activities in a particular sector. Such supervisory actions usually flow from microprudential concerns about the safety and soundness of individual institutions rather than macroprudential concerns about the stability of the entire system. By contrast, section 165 of the Dodd-Frank Act provides that the Federal Reserve could restrict the activities of banks with assets greater than \$50 billion or nonbank systemically important financial institutions (SIFIs) designated by the FSOC “to prevent or mitigate risks to the financial stability of the United States”, thus providing potential macroprudential authority.

In addition, the Federal Reserve has authority under the Securities and Exchange Act of 1934 to set initial and variation margin requirements for repurchase agreements and securities financing transactions, which applies across the financial system. This authority was used to curb perceived excesses in the equity markets through the mid-1970s with what was seen as limited success, and it has not been used in such a manner since. There is some interest in exploring whether imposing minimum margin requirements on additional forms of securities credit could prevent margins from compressing during booms and likewise help mitigate destabilizing procyclical margin increases at times of stress, reducing the associated “fire sales” in short-term wholesale funding markets.

Consideration of the utility of these authorities is in preliminary phases. It is being undertaken as part of a broad review of macroprudential authorities and not with regard to developments in any particular sector.

Time-varying borrower-side tools

For purposes of comparison, it is instructive to focus on how central banks in several advanced economies have dealt with housing booms in recent years.⁶ Financial authorities in the United Kingdom, Sweden, Switzerland, and New Zealand have recently confronted rapidly rising residential housing prices in macroeconomic environments where there were compelling reasons not to use the policy rate as the first line of defense. They responded by imposing strictures on borrowers, through loan-to-value or debt-to-income limits, in some

⁶ As shown by Elliott, Feldberg, and Lehnert (2013), the United States had an active macroprudential policy that included frequent use of borrower restrictions until 1980; however, the use of borrower restrictions, and the underlying legal authorities, have diminished significantly since then. See Douglas J. Elliott, Greg Feldberg, and Andreas Lehnert (2013), “[The History of Cyclical Macroprudential Policy in the United States](#)”, Finance and Economics Discussion Series 2013–29 (Washington: Board of Governors of the Federal Reserve System, May).

cases in concert with disincentives to lenders, and in many cases in an escalating pattern. Indeed, restrictions on borrowing are among the most commonly employed macroprudential tools and, according to some research, among the most effective in stemming the buildup of borrowing.⁷

This is not a problem we face today. If anything, the most pressing problem currently facing housing authorities in the United States is to restore vitality to the single-family housing market, where construction activity remains puzzlingly weak. However, if, in the future, a mortgage-credit fueled house price bubble were to reemerge, the banking regulators could perhaps impose higher risk weights on mortgage loans with certain characteristics either directly or through expectations around stress testing.⁸ This approach would be slow, perhaps requiring upwards of a year to adjust, and narrow in its scope of application, and it may prove ineffective at times when bank regulatory capital comfortably exceeds the required thresholds.

Third pillar: working across the regulatory perimeter

In some cases, foreign central banks acted in concert with other financial authorities to address the buildup of risk in their housing sectors. In the American context, the Federal Reserve's work is embedded in a larger web of efforts by other financial authorities. In parallel to the Federal Reserve's own efforts to formalize its financial stability surveillance and policy making, the network of independent financial agencies is enhancing cooperation through the formal structure and responsibilities of the FSOC as well as through joint rulemakings and joint supervisory efforts.⁹

It is vitally important that the bank and market regulators actively work to share assessments of risks across the financial system and to develop joint macroprudential efforts to address risks that stretch across regulatory perimeters. Realistically, however, those efforts are in early stages and must respect differences of mission and mandate, authority, and governance structures.

As an example, the Consumer Financial Protection Bureau (CFPB) has authority to adjust the definition of qualifying mortgages (QM), which affects mortgage credit at all lenders, whether inside or outside the banking regulatory perimeter. It is worth noting, however, that the CFPB operates primarily under a consumer protection mandate. While the ultimate consequences of a mortgage credit boom have, in the past, proved very costly for families, the danger to consumers in the initial stages of such a boom may be too unclear to warrant timely action.

⁷ See Stijn Claessens, Swati R. Ghosh, and Roxana Mihet (2014), "[Macro-Prudential Policies to Mitigate Financial System Vulnerabilities](#)", IMF Working Paper Series 14/155 (Washington: International Monetary Fund, August).

⁸ The Federal Reserve Board and five other federal agencies approved risk-retention rules in October 2014 designed to ensure that securitization sponsors have an incentive to monitor and ensure the quality of the securitized assets underlying a securitization transaction. Sponsors of securities collateralized solely by "qualified residential mortgages", or QRMs, as defined by the agencies, are not required to hold credit risk in their securitizations. The QRM definition rests, in part, on the debt service-to-income of the mortgage borrower, but it does not include loan-to-value ratios. The agencies have committed to review the QRM definition at five-year intervals, or earlier at the request of any agency, in order to ensure that the definition remains appropriate as mortgage and securitization market conditions and practices change. Altering the QRM definition more frequently would likely be cumbersome and time-consuming.

⁹ A parallel evolution is also under way internationally across the major financial jurisdictions and the international standard-setting bodies under the umbrella of the Financial Stability Board (FSB).

Fourth pillar: monetary policy

Recognition of the limits to the macroprudential framework brings us to a consideration of monetary policy – a powerful tool with broad reach, but also relatively blunt.¹⁰ Monetary policy is the only tool available to the Federal Reserve that has far-reaching effects on private credit creation across the entire financial system and one of the few tools that can be changed rapidly (although its effects have famously long and variable lags).

While recognizing the far-reaching effects of monetary policy on financial conditions, there are good reasons to view monetary policy as the second line of defense. It is better viewed as a complement to rather than an alternative to macroprudential tools. In many circumstances, standard monetary policy and financial stability considerations will reinforce one another.

Nevertheless, there may be times when standard monetary policy and financial stability considerations conflict. In several recent instances, foreign economies have faced some tension between high unemployment and shortfalls in inflation relative to the central bank's target, on the one hand, and financial stability concerns associated with rapidly rising real estate prices on the other. In the United Kingdom, policymakers put in place a range of measures to limit the buildup of risks in the housing market, and, partly as a result, the housing market appears to be cooling somewhat. Nonetheless, U.K. policymakers have acknowledged the potential for monetary policy adjustments to play a role in the pursuit of financial stability. The Bank of England's 2013 forward guidance had a specific financial stability "knockout" for monetary policy accommodation if the Financial Policy Committee (FPC) judges that the stance of monetary policy poses a significant threat to financial stability that cannot be contained by the substantial range of mitigating policy actions available to the FPC.¹¹

If, in the future, the United States did face a similar dilemma, where financial imbalances are growing rapidly against a backdrop of subpar economic conditions, the Federal Reserve may consider monetary policy for financial stability purposes more readily than some foreign peers because our regulatory perimeter is narrower, the capital markets are more important, and the macroprudential toolkit is not as extensive. Even in these circumstances, however, it is important to be prudent about the role of monetary policy, recognizing that the necessary adjustments in monetary policy could have broader consequences. For example, a tightening in monetary policy sufficient to limit strong credit growth could depress employment and potentially trigger a sharp correction in financial markets.

These limitations should lead us to be circumspect regarding the use of monetary policy as a tool to address financial stability risks, perhaps viewing it as a second line of defense. But it is equally important to acknowledge the potential utility of monetary policy for addressing risks to financial stability and to the broader economy and to continue expanding our work on the appropriate role of financial stability in our monetary policy framework.

Conclusion

In sum, while the Federal Reserve has an inherent responsibility for financial stability, it has an incomplete set of authorities and a limited regulatory perimeter in a financial system that has large capital markets and a fragmented regulatory structure. It is therefore important that we actively utilize the tools under our authority – which place particular emphasis on building structural resilience at the largest, most complicated institutions through tougher through-the-

¹⁰ See Janet L. Yellen (2014), "[Monetary Policy and Financial Stability](#)", speech delivered at "2014 Michel Camdessus Central Banking Lecture", a lecture series sponsored by the International Monetary Fund, Washington, July 2.

¹¹ See Bank of England (2013), "[Forward Guidance](#)", webpage, August 7, paragraph 5.

cycle standards, along with broad countercyclical measures to limit the buildup, and potential consequences, of risks to financial stability, while exploring the design of time-varying sector-specific tools, and, at times, looking to monetary policy as a powerful tool that unlike any other operates across the entire financial system.