

SPEECH

Regulatory Reform of the Global Financial System

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I am pleased to be here today to speak about the issue of regulatory reform and the global financial system.

But before I begin, I would like to express my deepest sympathies and those of my colleagues at the Federal Reserve to the people of Japan following the tragic events of the past month. We mourn your loss even as we admire the heroism of those who risked their lives to help others and the quiet fortitude with which so many of your citizens have borne their suffering and grief. We know that the character of the Japanese people will enable you to overcome the challenges before you, working together in common national purpose to rebuild and restore.

On the subject of my talk today, a stable and resilient financial system that allocates credit in an efficient manner underpins and supports economic growth and rising standards of living around the world. As we saw recently, however, a financial system that is prone to booms and crashes can not only lead to an inefficient allocation of real resources during the booms but can also have devastating consequences for global economic activity and employment during the crashes. In an integrated global economy, severe negative consequences can be felt far away from the center of the financial crisis—as they were in Asia in late 2008 and early 2009. This underscores our common interest in promoting financial stability on a global basis.

Truly effective reform would generate sizable and widespread benefits. However, there are significant challenges to achieving this. One challenge arises from the fact that we have a global economy with many large, globally active financial firms, but our regulatory regimes are implemented at the national level. Another is that any attempt to improve regulatory standards will inevitably meet with resistance from parties that have a vested interest in the status quo.

Today I will comment on the actions underway in the United States and internationally to make the financial system more resilient and robust. I will focus on the logic behind the reform efforts, progress to date, and areas where there still is considerable work to do. As always, what I have to say reflects my own views and not necessarily those of the Federal Open Market Committee, the Federal Reserve System, or my international supervisory colleagues with whom I work closely with on a regular basis.

The financial crisis exposed significant vulnerabilities in the financial system. Without revisiting all the causes and consequences of the credit boom and bust that led to a boom and bust in the U.S. housing market, the bottom line is that our regulatory system failed in two important dimensions. First, a significant number of large, internationally active financial firms reached the brink of failure. Second, the financial system was not very resilient when these firms got into difficulty. Instead, the threat of failure propagated further shocks that reverberated throughout the global financial system.

These two shortcomings reflect many factors including inadequate capital and liquidity buffers, poor incentives to correctly measure, price and manage risks ex ante, the opacity of firm balance sheet and counterparty exposures, and the manner in which large financial firms were interconnected within the financial system. In the end, there was too much leverage in which large amounts of highly illiquid, long-term assets were financed by short-term liabilities. The fact that a large amount of the wholesale funding used to finance these assets was provided by leveraged financial intermediaries to other financial intermediaries increased the system's vulnerability to adverse shocks. As it turned out, the amount and quality of capital was grossly inadequate relative to the quality of the assets and off-balance-sheet exposures of many of the major global banking institutions. Moreover, many institutions had inadequate liquidity buffers. The lack of liquidity forced the fire sale of assets, which depressed prices and increased the pressure on capital.

When troubled institutions did fail, this exacerbated the pressure on the remaining institutions. Aggravated by the lack of transparency about their counterparty exposures and the contingent liabilities they faced, the problems of a single institution quickly became the problems of many. This was fueled in part by concern that the counterparty claims on failed institutions would be frozen and unable to be realized quickly.

Not only did some core firms have inadequate capital and liquidity, they also faced conflicting incentives as to how to manage their capital resources. For example, many firms that came under stress were slow to cut their dividends or to raise new capital because of fears that such actions would signal their underlying weakness. Obviously, the failure to conserve capital made these institutions weaker rather than stronger.

The crisis also underscored severe deficiencies in the international dimension of the regulatory environment. Financial

institutions, flows and activities are global, but the vast majority of regulation and information sharing is contained within national boundaries. Where resolution regimes existed, they generally existed only for banking entities and were not set up to handle the orderly resolution of a large internationally active bank holding company or non-bank financial firm. This cross-border problem persists to this day.

The interconnectedness of the financial system also caused shocks to spread quickly. For example, the failure of Lehman Brothers led to losses at the Reserve Fund, which precipitated a widespread money market mutual fund panic. It also led to actions by U.K. bankruptcy authorities that had the effect of freezing the assets owned by hedge fund and other clients of the firm and this encouraged such investors to pull assets from other institutions perceived to be weak. These and other propagation channels in turn, led to virtual stoppage of lending and borrowing activity in the money markets and, ultimately, a credit crunch that reverberated throughout the global financial system. For example, the crisis led to a sharp constraint on the availability of trade credit in the fall of 2008 that had a devastating impact on economic activity in emerging markets in Asia and Latin America, as well as Japan. This region felt the full economic consequences of the crisis even though banks in the region were generally healthy and far from the U.S. housing boom and bust and the subprime mortgage debacle that could be viewed as the initial spark that ignited the crisis.

The crisis also underscored another area for further cross-border work: Our international approach to liquidity provision and lender-of-last-resort services to globally active institutions. Cooperation among liquidity providers, for example, through some central bank dollar swap arrangements, played an important role in stabilizing global money markets. However, the division of lender-of-last-resort responsibilities between home and host countries remained ambiguous through the crisis. This needs further attention.

So what steps have been taken to address some of these sources of vulnerability? There are literally dozens of initiatives underway nationally and globally, not only in traditional bodies for such cooperation such as the Basel Committee on Bank Supervision, but also among newer international groups such as the Financial Stability Board. Most of these initiatives can be grouped into three major categories:

- Actions to significantly reduce the probability of failure of large systemically important financial institutions.
- Measures to broaden the oversight of the financial system to include activities that occur outside of the core banking system. The shadow banking system, which is composed of the wide range of financial intermediation activities that occur outside of the traditional purview of bank regulators, needs greater attention. In particular, shadow banking activities that involve maturity transformation are vulnerable to shocks because such activities do not have the support of bank deposit guarantees or access to central bank liquidity and, thus, are vulnerable to funding runs.
- Steps to strengthen the resolution regime and the core financial market infrastructure to ensure that when a large complex financial firm fails, the failure doesn't threaten to bring down the entire financial system.

Turning to the first set of initiatives designed to reduce the probability of failure of large, systemically important financial institutions (SIFIs), the tougher capital and liquidity regimes that the Basel Committee has devised are probably the most important elements. On the capital side, Basel III significantly increases requirements with respect to both the quantity and quality of capital. On the quantity side, there have been two important changes. First, the capital requirements have been raised so that internationally active banks must have common equity ratios of at least 7 percent of risk-weighted assets when the standards are fully phased in by 2019. This 7 percent standard consists of a 4.5 percent minimum plus a 2.5 percent capital conservation buffer. Banks whose capital ratios fall into the buffer range will face increasingly stringent restrictions on capital distributions such as dividends and share repurchases and discretionary bonus payments to staff. This should act as a form of "automatic stabilizer" to their capital resources and change the incentives banks face during periods of stress. Second, for many globally active banks, the amount of capital required will also rise because the amount of risk-weighted assets against which the capital ratios are calculated will increase. Explicit capital requirements for operational risk and counterparty credit risk, as well as increased requirements for certain trading activity and transactions between financial institutions should result in a significant rise in risk-weighted assets.

On the quality side, capital requirements have been toughened by narrowing the definition of what can be counted toward common equity capital for regulatory capital purposes. The emphasis has been put on common equity because of the superior loss-absorbing capacity of this type of capital on a going concern basis. Tighter limits have been put on certain types of assets—such as mortgage servicing rights and tax-deferred assets—in which the values depend on a firm remaining viable, and that might not be easy to realize in the midst of a financial crisis.

On the liquidity regime side, several major initiatives are underway. The Basel Committee has proposed a liquidity coverage ratio (LCR) requirement for globally active banks. In essence, this standard would require that large, internationally active banks hold sufficient short-term, liquid assets so that a bank could fund its operations for at least 30 days, without needing to borrow funds from the central bank. By creating a pool of liquid assets that the bank could sell or allow to mature, the liquidity buffer would buy time for the bank to explore options to restore market confidence. Such steps might include selling businesses and other asset dispositions, raising additional capital, or by making changes in senior management. The LCR requirement is being carefully

evaluated to ensure that there will be no deleterious, unintended consequences when it becomes effective.

Also, apart from the Basel initiative, supervisors are placing greater emphasis on liquidity. For example, in the United States, supervisors have emphasized the importance of adequate liquidity buffers and many banks have been pushed to bolster their liquidity resources through the supervisory process.

Together, this emphasis on a greater quantity and higher quality of capital and larger liquidity buffers should make banks individually, and the banking system as a whole, more resilient to adverse shocks. The goal is to enable banks to retain market access to capital and funding even when large losses occur or the banks are subject to other adverse shocks. The ability to retain access should enable banks to manage through their problems, avoiding the types of liquidity runs that led to the forced unwinding of positions and that pushed what might have been solvent institutions over the edge into insolvency.

In addition to the Basel III standards for capital and liquidity, an international effort is underway to further reduce the probability of failure for systemically important financial institutions or SIFIs. The basic logic behind this effort is that the failure of a larger, more complex firm can have disproportionately large negative systemic consequences. As a result, such firms should be forced to hold additional capital in order to reduce their probability of failure below that of smaller firms. An additional capital requirement on such SIFIs would also help to level the playing field between larger and smaller firms by offsetting the funding advantage that accrues to the largest firms that stems from the perception that they are "too big to fail." Although there are potentially other options, I believe that a SIFI surcharge could best be satisfied by requiring SIFIs to hold additional common equity above and beyond the Basel 7 percent Tier I common standard.

The move toward a tougher capital and liquidity regime undoubtedly receives the greatest attention in terms of the measures being implemented to make large banks safer. However, there also are a number of other important changes being made to supervisory practices in the United States and elsewhere. One noteworthy example is the more widespread use of horizontal stress tests to ensure that banks have adequate capital. This is a very important development, because it makes the evaluation of capital more forward-looking. The issue is not just how much regulatory capital a bank has currently but how that bank's capital level is likely to evolve over time in adverse economic circumstances.

In the United States, another important change is that we are refocusing our supervisory practices to identify structural weaknesses and to push firm managements to remedy their shortcomings relative to "best practice" standards. Horizontal reviews across the large banks are being undertaken to identify firm-specific deficiencies. At the Federal Reserve, we are placing greater emphasis on understanding banking organizations' business models and strategies—in other words, better understanding the specific markets and activities from which the banking organizations make money over time and the nature of the risks they take in this process. Strong risk management practices within organizations are particularly important, as risk managers must be empowered to stand up to those in the front office and prevent activities and practices that create risks or incentives that are incompatible with bank safety and soundness. Compensation practices are being reviewed to ensure that the incentives created by the compensation regime are consistent with a banking organization remaining in sound financial condition.

Another key supervisory innovation has been the more extensive supervisory engagement on the processes that banking organizations use to assess and plan for their capital needs. Recently, the Federal Reserve completed a Comprehensive Capital Analysis and Review (CCAR) program for the 19 largest U.S. bank holding companies. The purpose of the CCAR process was to assess the way these institutions allocate capital over time against the risks they run, including how robust that allocation is to changes in the economic and financial environment. As part of this exercise, banking organizations had to show how their capital would hold up under a stress environment specified by the Federal Reserve, as well as how they expected their activities and capital positions to be affected by changes such as Basel III. The CCAR built on lessons learned during the crisis about the importance of taking a forward-looking and comprehensive approach to assessing capital adequacy, including an assessment of the level and composition of a bank holding company's capital resources under stressed economic and financial market conditions.

This exercise received considerable attention because an assessment of bank holding companies' plans for increasing dividend payments and implementing stock buyback plans were an important part of the review. However, the CCAR's focus was much broader than simply assessing proposed capital distributions. Instead, the goal of the CCAR was to help ensure that large bank holding companies have strong, firmwide risk measurement and management processes to support their internal assessments of capital adequacy and that their capital resources are sufficient given their business activities and the resulting risk exposures.

The second important strand of reform is to ensure that regulatory oversight is sufficiently broad to include the activities of the so-called shadow banking system. This aspect of reform and oversight is still in its early days. But work is underway. For example, the Financial Stability Board is undertaking work to identify potential sources of vulnerability caused by the activities in the shadow banking system and how such vulnerabilities could be addressed. Also, in the United States, the Financial Stability Oversight Council (FSOC) views its mandate broadly with respect to identifying systemic risks and proposing remedies. For example, on an ongoing basis, the FSOC will monitor and assess which non-bank financial intermediaries in the United States are systemically important and, thus, require greater regulatory oversight.

But the focus will not just be on large financial firms. Activities and practices that occur outside of the core institutions are also

important. For example, the activities of money market mutual funds is one area receiving close scrutiny. As you know, a run on the money market funds developed in the fall of 2008 when the Reserve Fund broke the buck when Lehman Brothers failed. This underscored a critical structural weakness of money market mutual funds created by the convention that the net stable asset value could be fixed at par. When a money market mutual fund incurs losses that cause it to "break the buck," this encourages investors to rush to withdraw their funds from other funds before they break the buck. The result can be a run on money market mutual fund assets. In the United States, the Securities Exchange Commission has already tightened the rules with respect to liquidity, quality and the average maturity of so-called 2a-7 fund assets, but there is still more to be done to address the remaining vulnerabilities.

As mentioned earlier, the final major strand of regulatory reform is to strengthen the core of the financial system and make the system as a whole robust to the failure of a large bank or non-bank financial institution. In this realm, there are several notable initiatives.

First, an effort is underway to create robust resolution regimes that allow large systemically important financial institutions to be wound down smoothly in a way that minimizes contagion and the risk of a broader panic or that causes damage to other parts of the financial system. For example, the Dodd-Frank Act gives enhanced resolution powers to the Federal Deposit Insurance Corporation (FDIC) to use to wind down large, complex non-bank financial institutions. If such a firm becomes troubled, the regulators, with concurrence from the U.S. Treasury, can avert a bankruptcy filing and instead put the non-bank financial company into resolution. As part of such a resolution process, regulators are working to ensure that systemically important firms have viable recovery plans and that such firms have "living wills" that can help guide how such firms can be managed through a resolution situation.

Second, to reduce the likelihood of disruptive and highly costly failures, regulators around the world are evaluating whether bail-in forms of capital might be used to help recapitalize firms when they would otherwise lose their viability, or, alternatively, to help facilitate the orderly wind-down of a firm. Bail-in capital might consist of a well-identified tranche of debt that would convert to equity only if and when a particular set of trigger conditions were met. Such triggers might include breaching a certain level of regulatory capital and/or a regulatory determination that without conversion the firm would no longer be viable. One considerable challenge is how to define a set of triggers in a way that is sufficiently transparent and objective so that the bail-in process does not act as a catalyst and precipitate a run on other firms that might appear to have similar characteristics. In principle, however, by helping to recapitalize the firm, bail-in capital could help to forestall the need for a forced, rapid liquidation of assets and this might help to facilitate the orderly wind-down of a large, global firm that otherwise could not otherwise be easily resolved.

Third, efforts are underway to reduce counterparty risk exposures by requiring that over-the-counter (OTC) interest rate swaps, credit default swaps, and equity and commodity derivative trades be standardized where feasible—and that all standardized trades be cleared through central counterparties (CCPs). Standardized clearing through CCPs reduces the complex web of counterparty exposures that exist in the bilateral world of OTC derivatives. Everyone that centrally clears becomes the counterparty to the CCP. This enables a high level of gross bilateral exposures to be netted down to a much more manageable set of net exposures to the CCP.

Fourth, recognizing that mandated central clearing will only reduce risk if the CCPs themselves are robust, efforts are underway to strengthen financial market infrastructures. In the United States, for example, the Dodd-Frank Act instructs the Financial Stability Oversight Council to designate certain financial market utilities (FMUs) as systemically important. Such FMUs would be subject to a tougher regulatory oversight regime. On a parallel track, at the international level, the Committee for Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) are revising and strengthening a set of regulatory oversight principles and minimum business standards for financial market infrastructures (FMIs). These principles include numerous standards with respect to governance, access, risk management practices, and capital and liquidity standards. As Chair of the Committee on Payments and Settlement Systems and someone deeply involved in the CPSS-IOSCO work, I believe that adoption of an agreed-upon global set of minimum standards for FMIs is essential if we are to have a safe global financial system.

Recently, CPSS-IOSCO issued a revised set of such principles for consultation. Responses to the proposed principles are due back by late July. The CPSS-IOSCO plans to publish a final set of standards early next year. I hope and anticipate that countries will adopt these principles as the minimum regulatory standards for the systemically important FMIs that operate in their jurisdictions.

In summary, considerable effort is underway to enhance financial stability.

That said, I think it is important to recognize some of the important challenges in designing and implementing effective reform. Four broad challenges immediately come to mind. First, the resolution of large financial firms that operate in multiple jurisdictions remains largely out of reach—at least in the near- to medium-term. This is due to the fact that legal rules are not harmonized across the different regulatory regimes with respect to bankruptcy and liquidation. For example, although the Dodd-Frank Act establishes a resolution regime for the U.S. operations of a large global financial firm domiciled in the United States, this resolution framework stops at the nation's borders. Supervisors from different nations are working together in an effort to

create more effective cross-border crisis management tools and resolution regimes, but this work is still in its very early stages and there are formidable obstacles to overcome.

A second challenge is the uneven progress that has been made in reforming bank regulation and supervision across the different jurisdictions. For example, in some cases, the supervisory authorities have been quite forceful in making banks domiciled in their countries raise capital. In other cases, the response has been less aggressive. The uneven progress of reform makes comprehensive reform more difficult. It shifts the tenor of the discussion away from what is the proper macroprudential framework and set of capital and liquidity requirements to one that focuses too much on issues of relative competitiveness. Too often the questions asked are: What is most beneficial to the banks of my particular country? Do the regulations bolster or harm my "national champion"? The focus shifts away from the goal of bolstering global financial stability to finding ways of tilting or adjusting the new standards to achieve a national competitive advantage.

This is in not in anyone's interest. As discussed earlier, every nation has an interest in promoting financial stability globally, since the effects of systemic financial stress in one place can swiftly spread throughout the global economy. Moreover, although a relatively loose regulatory regime may attract business from other financial centers, there is no free lunch here. A more lax regulatory regime is likely to expose that country's taxpayers to huge tail risks.

A third challenge is the sequencing of reforms. For example, many jurisdictions are focusing on banking reforms, but have not yet applied the same intensity to shadow banking activities. If regulatory requirements for banks are increased significantly, the risk of stimulating the growth of the non-regulated shadow banking sector also increases. This suggests that the regulatory oversight effort has to be broadly applied so we just don't trade one problem—for example, undercapitalized large banks—for another—a shrunken regulated banking sector and an enlarged, unregulated non-banking sector.

So what needs to be done? In short, plenty. Although we have made some progress in making the global financial system safer and more secure, there is much more to do. Several examples illustrate the range of issues that are still outstanding.

First, we do need to adopt an additional capital requirement on large global systemically important financial institutions. We need this to reduce the risk of failure of such institutions to very low levels because we do not yet have the tools in place to resolve these institutions on a cross-border basis in a non-disruptive manner. We also need to do this because such institutions—by being perceived to be too big to fail—obtain a funding advantage, which higher capital charges can help offset. Without such a requirement, large banks can gain a competitive advantage just through their size.

Second, as discussed earlier, we have much more to do to ensure that we have a relatively level playing field. We need that to discourage regulatory arbitrage and beggar-thy-neighbor policies that might benefit narrow national constituencies at the expense of global financial stability.

Third, we need closer cooperation among regulators. While regulators have successfully worked toward a much tougher regulatory regime for capital and liquidity, there are still huge opportunities for further progress. For example, regulators need to adopt more far-reaching protocols that allow for greater sharing of supervisory information on a cross-border basis to facilitate more effective supervision. But, this needs to be done carefully, so that proprietary business information is protected. Currently, regulators generally do not have access to the necessary information to fully assess the condition of foreign banks that operate within their borders. They have supervisory information about the activities and state of condition of the foreign bank branches and subsidiaries within their borders, but do not always have good access to information about the parent company or what the banking entity looks like on a consolidated basis. This has long been a difficult issue, though efforts are underway to find ways to enhance information-sharing.

Similarly, protocols need to be developed to share regulatory information about systemically important financial market infrastructures that operate on a cross-border basis. Access to the trade records of OTC derivatives activity that will be recorded in trade repositories also needs to be made available to be shared among regulators.

Fourth, we need greater clarity concerning the responsibilities of the home versus the host country, especially when a bank encounters problems.

Fifth, we need to work out how emergency liquidity should be provided on a cross-border basis. If a major financial market utility in London, for example, needs dollar liquidity to stay in operation, who will provide in it? Who will bear the risk and on what terms and conditions?

The political unrest in the Middle East and North Africa underscores once again the fact that we operate in a shared world economy in which events in one country and region can have large impacts globally. And to support this globalized economy, global financial firms and a global payments and settlement infrastructure are needed to support this activity. Yet, we currently operate with a financial system that is largely regulated on a country-by-country basis.

This is not tenable. What's required is not some global authority dictating what national authorities can do but instead greater cooperation and trust in exchanging information and agreement on harmonized standards such as those laid out in the Basel III capital requirements and the CPSS-IOSCO Principles for Financial Market Infrastructures. There needs to be a good faith

commitment to try to achieve a level playing field. The regulations and supervisory practices that are put in place should be determined by what is good for the public good writ large, rather than what benefits some narrow set of private financial institutions or markets.

Finally, we need to be persistent. There is much work that still lies ahead. As the crisis recedes in memory, the natural reflex will be to relax and grow complacent. Already, some bankers are arguing that it is time to get back to "business as usual." We have seen that "business as usual" results in unacceptable outcomes. So we need to keep working on a continual basis to make the global financial system more resilient and robust. We will not be able to avert all future failures or crises, but I know we can do much better in limiting the frequency, severity and the breadth of their impact when they occur if we keep pushing forward.

Thank you for your kind attention. I would be happy to take a few questions.
