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Speech

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Financial Reform to Address Systemic Risk

The world is suffering through the worst financial crisis since the 1930s, a crisis that has precipitated a sharp downturn in the global economy. Its fundamental causes remain in dispute. In my view, however, it is impossible to understand this crisis without reference to the global imbalances in trade and capital flows that began in the latter half of the 1990s. In the simplest terms, these imbalances reflected a chronic lack of saving relative to investment in the United States and some other industrial countries, combined with an extraordinary increase in saving relative to investment in many emerging market nations. The increase in excess saving in the emerging world resulted in turn from factors such as rapid economic growth in high-saving East Asian economies accompanied, outside of China, by reduced investment rates; large buildups in foreign exchange reserves in a number of emerging markets; and substantial increases in revenues received by exporters of oil and other commodities. Like water seeking its level, saving flowed from where it was abundant to where it was deficient, with the result that the United States and some other advanced countries experienced large capital inflows for more than a decade, even as real long-term interest rates remained low.

The global imbalances were the joint responsibility of the United States and our trading partners, and although the topic was a perennial one at international conferences, we collectively did not do enough to reduce those imbalances. However, the responsibility to use the resulting capital inflows effectively fell primarily on the receiving countries, particularly the United States. The details of the story are complex, but, broadly speaking, the risk-management systems of the private sector and government oversight of the financial sector in the United States and some other industrial countries failed to ensure that the inrush of capital was prudently invested, a failure that has led to a powerful reversal in investor sentiment and a seizing up of credit markets. In certain respects, our experience parallels that of some emerging-market countries in the 1990s, whose financial sectors and regulatory regimes likewise proved inadequate for efficiently investing large inflows of saving from abroad. When those failures became evident, investors lost confidence and crises ensued. A clear and highly consequential difference, however, is that the crises of the 1990s were regional, whereas the current crisis has become global.¹

In the near term, governments around the world must continue to take forceful and, when appropriate, coordinated actions to restore financial market functioning and the flow of credit. I have spoken on a number of occasions about the steps that the U.S. government, and particularly the Federal Reserve, is taking along these lines.² Until we stabilize the financial system, a sustainable economic recovery will remain out of reach. In particular, the continued viability of systemically important financial institutions is vital to this effort. In that regard, the Federal Reserve, other federal regulators, and the Treasury Department have stated that they will take any necessary and appropriate steps to ensure that our banking institutions have the capital and liquidity necessary to function well in even a severe economic downturn. Moreover, we have reiterated the U.S. government's determination to ensure that systemically important financial institutions continue to be able to meet their commitments.

At the same time that we are addressing such immediate challenges, it is not too soon for policymakers to begin thinking about the reforms to the financial architecture, broadly conceived,

that could help prevent a similar crisis from developing in the future. We must have a strategy that regulates the financial system as a whole, in a holistic way, not just its individual components. In particular, strong and effective regulation and supervision of banking institutions, although necessary for reducing systemic risk, are not sufficient by themselves to achieve this aim.

Today, I would like to talk about four key elements of such a strategy. First, we must address the problem of financial institutions that are deemed too big--or perhaps too interconnected--to fail. Second, we must strengthen what I will call the financial infrastructure--the systems, rules, and conventions that govern trading, payment, clearing, and settlement in financial markets--to ensure that it will perform well under stress. Third, we should review regulatory policies and accounting rules to ensure that they do not induce excessive procyclicality--that is, do not overly magnify the ups and downs in the financial system and the economy. Finally, we should consider whether the creation of an authority specifically charged with monitoring and addressing systemic risks would help protect the system from financial crises like the one we are currently experiencing. My discussion today will focus on the principles that should guide regulatory reform, leaving aside important questions concerning how the current regulatory structure might be reworked to reduce balkanization and overlap and increase effectiveness. I also will not say much about the international dimensions of the issue but will take as self-evident that, in light of the global nature of financial institutions and markets, the reform of financial regulation and supervision should be coordinated internationally to the greatest extent possible.

Too Big to Fail

In a crisis, the authorities have strong incentives to prevent the failure of a large, highly interconnected financial firm, because of the risks such a failure would pose to the financial system and the broader economy. However, the belief of market participants that a particular firm is considered too big to fail has many undesirable effects. For instance, it reduces market discipline and encourages excessive risk-taking by the firm. It also provides an artificial incentive for firms to grow, in order to be perceived as too big to fail. And it creates an unlevel playing field with smaller firms, which may not be regarded as having implicit government support. Moreover, government rescues of too-big-to-fail firms can be costly to taxpayers, as we have seen recently. Indeed, in the present crisis, the too-big-to-fail issue has emerged as an enormous problem.

In the midst of this crisis, given the highly fragile state of financial markets and the global economy, government assistance to avoid the failures of major financial institutions has been necessary to avoid a further serious destabilization of the financial system, and our commitment to avoiding such a failure remains firm. Looking to the future, however, it is imperative that policymakers address this issue by better supervising systemically critical firms to prevent excessive risk-taking and by strengthening the resilience of the financial system to minimize the consequences when a large firm must be unwound.

Achieving more effective supervision of large and complex financial firms will require a number of actions. First, supervisors need to move vigorously--as we are already doing--to address the weaknesses at major financial institutions in capital adequacy, liquidity management, and risk management that have been revealed by the crisis. In particular, policymakers must insist that the large financial firms that they supervise be capable of monitoring and managing their risks in a timely manner and on an enterprise-wide basis. In that regard, the Federal Reserve has been looking carefully at risk-management practices at systemically important institutions to identify best practices, assess firms' performance, and require improvement where deficiencies are identified.³ Any firm whose failure would pose a systemic risk must receive especially close supervisory oversight of its risk-taking, risk management, and financial condition, and be held to high capital and liquidity standards.⁴ In light of the global reach and diversified operations of many large financial firms, international supervisors of banks, securities firms, and other financial institutions must collaborate and cooperate on these efforts.

Second, we must ensure a robust framework--both in law and practice--for consolidated supervision of all systemically important financial firms organized as holding companies. The consolidated supervisors must have clear authority to monitor and address safety and soundness concerns in all

parts of the organization, not just the holding company. Broad-based application of the principle of consolidated supervision would also serve to eliminate gaps in oversight that would otherwise allow risk-taking to migrate from more-regulated to less-regulated sectors.

Third, looking beyond the current crisis, the United States also needs improved tools to allow the orderly resolution of a systemically important nonbank financial firm, including a mechanism to cover the costs of the resolution. In most cases, federal bankruptcy laws provide an appropriate framework for the resolution of nonbank financial institutions. However, this framework does not sufficiently protect the public's strong interest in ensuring the orderly resolution of nondepository financial institutions when a failure would pose substantial systemic risks. Improved resolution procedures for these firms would help reduce the too-big-to-fail problem by narrowing the range of circumstances that might be expected to prompt government intervention to keep the firm operating.

Developing appropriate resolution procedures for potentially systemic financial firms, including bank holding companies, is a complex and challenging task. Models do exist, though, including the process currently in place under the Federal Deposit Insurance Act (FDIA) for dealing with failing insured depository institutions and the framework established for Fannie Mae and Freddie Mac under the Housing and Economic Recovery Act of 2008. Both models allow a government agency to take control of a failing institution's operations and management, act as conservator or receiver for the institution, and establish a "bridge" institution to facilitate an orderly sale or liquidation of the firm. The authority to "bridge" a failing institution through a receivership to a new entity reduces the potential for market disruption while limiting moral hazard and mitigating any adverse impact of government intervention on market discipline.

The new resolution regime would need to be carefully crafted. For example, clear guidelines must define which firms could be subject to the alternative regime and the process for invoking that regime, analogous perhaps to the procedures for invoking the so-called systemic risk exception under the FDIA. In addition, given the global operations of many large and complex financial firms and the complex regulatory structures under which they operate, any new regime must be structured to work as seamlessly as possible with other domestic or foreign insolvency regimes that might apply to one or more parts of the consolidated organization.

Strengthening the Financial Infrastructure

The first element of my proposed reform agenda covers systemically important institutions considered individually. The second element focuses on interactions among firms as mediated by what I have called the financial infrastructure, or the financial plumbing if you will: the institutions that support trading, payments, clearing, and settlement. Here the aim should be not only to help make the financial system as a whole better able to withstand future shocks, but also to mitigate moral hazard and the problem of too big to fail by reducing the range of circumstances in which systemic stability concerns might prompt government intervention. I'll give several examples.

Since September 2005, the Federal Reserve Bank of New York has been leading a major joint initiative by the public and private sectors to improve arrangements for clearing and settling credit default swaps (CDS) and other over-the-counter (OTC) derivatives. As a result, the accuracy and timeliness of trade information has improved significantly. However, the infrastructure for managing these derivatives is still not as efficient or transparent as that for more mature instruments. The Federal Reserve Bank of New York, in conjunction with other domestic and foreign supervisors, will continue to work toward establishing increasingly stringent targets and performance standards for market participants. To help alleviate counterparty credit concerns, regulators are also encouraging the development of well-regulated and prudently managed central clearing counterparties for OTC trades.⁵ Just last week, we approved the application for membership in the Federal Reserve System of ICE Trust, a trust company that proposes to operate as a central counterparty and clearinghouse for CDS transactions.

The Federal Reserve and other authorities also are focusing on enhancing the resilience of the triparty repurchase agreement (repo) market, in which the primary dealers and other major banks and broker-dealers obtain very large amounts of secured financing from money market mutual funds and

other short-term, risk-averse sources of funding.⁶ For some time, market participants have been working to develop a contingency plan for handling a loss of confidence in either of the two clearing banks that facilitate the settlement of triparty repos. Recent experience demonstrates the need for additional measures to enhance the resilience of these markets, particularly as large borrowers have experienced acute stress. The Federal Reserve's Primary Dealer Credit Facility, launched in the wake of the Bear Stearns collapse and expanded in the aftermath of the Lehman Brothers bankruptcy, has stabilized this critical market, and market confidence has been maintained. However, this program was adopted under our emergency powers to address unusual and exigent circumstances. Therefore, more-permanent reforms are needed. For example, it may be worthwhile considering the costs and benefits of a central clearing system for this market, given the magnitude of exposures generated and the vital importance of the market to both dealers and investors.

More broadly, both the operational performance of key payment and settlement systems and their ability to manage counterparty and market risks in both normal and stressed environments are critical to the stability of the broader financial system. Currently, the Federal Reserve relies on a patchwork of authorities, largely derived from our role as a banking supervisor, as well as on moral suasion to help ensure that critical payment and settlement systems have the necessary procedures and controls in place to manage their risks. By contrast, many major central banks around the world have an explicit statutory basis for their oversight of these systems. Given how important robust payment and settlement systems are to financial stability, a good case can be made for granting the Federal Reserve explicit oversight authority for systemically important payment and settlement systems.

Another issue that warrants attention is the potential fragility of the money market mutual fund sector. Last fall, as a result of losses on Lehman Brothers commercial paper, a prominent money market mutual fund "broke the buck"--that is, was unable to maintain a net asset value of \$1 per share. Over subsequent days, fearful investors withdrew more than \$250 billion from prime money market mutual funds. The magnitude of these withdrawals decreased only after the Treasury announced a guarantee program for money market mutual fund investors and the Federal Reserve established a new lending program to support liquidity in the asset-backed commercial paper market.

In light of the importance of money market mutual funds--and, in particular, the crucial role they play in the commercial paper market, a key source of funding for many businesses--policymakers should consider how to increase the resiliency of those funds that are susceptible to runs. One approach would be to impose tighter restrictions on the instruments in which money market mutual funds can invest, potentially requiring shorter maturities and increased liquidity. A second approach would be to develop a limited system of insurance for money market mutual funds that seek to maintain a stable net asset value. For either of these approaches or others, it would be important to consider the implications not only for the money market mutual fund industry itself, but also for the distribution of liquidity and risk in the financial system as a whole.

Procyclicality in the Regulatory System

It seems obvious that regulatory and supervisory policies should not themselves put unjustified pressure on financial institutions or inappropriately inhibit lending during economic downturns. However, there is some evidence that capital standards, accounting rules, and other regulations have made the financial sector excessively procyclical--that is, they lead financial institutions to ease credit in booms and tighten credit in downturns more than is justified by changes in the creditworthiness of borrowers, thereby intensifying cyclical changes.

For example, capital regulations require that banks' capital ratios meet or exceed fixed minimum standards for the bank to be considered safe and sound by regulators.⁷ Because banks typically find raising capital to be difficult in economic downturns or periods of financial stress, their best means of boosting their regulatory capital ratios during difficult periods may be to reduce new lending, perhaps more so than is justified by the credit environment. We should review capital regulations to ensure that they are appropriately forward-looking, and that capital is allowed to serve its intended role as a buffer--one built up during good times and drawn down during bad times in a manner consistent with safety and soundness.⁸ In the area of prudential supervision, we should also ensure

that bank examiners appropriately balance the need for caution and the benefits of maintaining profitable lending relationships when evaluating bank loan policies.

The ongoing move by those who set accounting standards toward requirements for improved disclosure and greater transparency is a positive development that deserves full support. However, determining appropriate valuation methods for illiquid or idiosyncratic assets can be very difficult, to put it mildly. Similarly, there is considerable uncertainty regarding the appropriate levels of loan loss reserves over the cycle. As a result, further review of accounting standards governing valuation and loss provisioning would be useful, and might result in modifications to the accounting rules that reduce their procyclical effects without compromising the goals of disclosure and transparency. Indeed, work is underway on these issues through the Financial Stability Forum, and the results of that work may prove useful for U.S. policymakers.⁹

Another potential source of procyclicality is the system for funding deposit insurance. In recognition of this fact--as well as the weak economic outlook and the current strains on banks and the financial system--the Federal Deposit Insurance Corporation recently announced plans to extend from five years to seven years the period over which it would restore the deposit insurance fund to its minimum required level. This plan, if implemented, should help reduce the costs imposed on banks at a time when capital and lending are already under pressure. Policymakers should consider additional steps to reduce the possible procyclical effects of deposit insurance costs while still ensuring that riskier banks pay higher premiums than safer banks. One possibility would be to raise the level to which the designated reserve ratio may grow in benign economic environments, so that a larger buffer is available to be drawn down when economic conditions worsen and insurance losses are high.

Systemic Risk Authority

The policy actions I've discussed would inhibit the buildup of risks within the financial system and improve the resilience of the financial system to adverse shocks. Financial stability, however, could be further enhanced by a more explicitly macroprudential approach to financial regulation and supervision in the United States. Macroprudential policies focus on risks to the financial system as a whole. Such risks may be crosscutting, affecting a number of firms and markets, or they may be concentrated in a few key areas. A macroprudential approach would complement and build on the current regulatory and supervisory structure, in which the primary focus is the safety and soundness of individual institutions and markets.

How could macroprudential policies be better integrated into the regulatory and supervisory system? One way would be for the Congress to direct and empower a governmental authority to monitor, assess, and, if necessary, address potential systemic risks within the financial system. The elements of such an authority's mission could include, for example, (1) monitoring large or rapidly increasing exposures--such as to subprime mortgages--across firms and markets, rather than only at the level of individual firms or sectors; (2) assessing the potential for deficiencies in evolving risk-management practices, broad-based increases in financial leverage, or changes in financial markets or products to increase systemic risks; (3) analyzing possible spillovers between financial firms or between firms and markets, such as the mutual exposures of highly interconnected firms; and (4) identifying possible regulatory gaps, including gaps in the protection of consumers and investors, that pose risks for the system as a whole. Two areas of natural focus for a systemic risk authority would be the stability of systemically critical financial institutions and the systemically relevant aspects of the financial infrastructure that I discussed earlier.

Introducing a macroprudential approach to regulation would present a number of significant challenges. Most fundamentally, implementing a comprehensive systemic risk program would demand a great deal of the supervisory authority in terms of market and institutional knowledge, analytical sophistication, capacity to process large amounts of disparate information, and supervisory expertise.

Other challenges include defining the range of powers that a systemic risk authority would need to fulfill its mission and then integrating that authority into the currently decentralized system of

financial regulation in the United States. On the one hand, it seems clear that any new systemic risk authority should rely on the information, assessments, and supervisory and regulatory programs of existing financial supervisors and regulators whenever possible. This approach would reduce the cost to both the private sector and the public sector and allow the systemic risk authority to leverage the expertise and knowledge of other supervisors. On the other hand, because the goal of any systemic risk authority would be to have a broader view of the financial system, simply relying on existing structures likely would be insufficient.

For example, a systemic risk authority would need broad authority to obtain information--through data collection and reports, or when necessary, examinations--from banks and key financial market participants, as well as from nonbank financial institutions that currently may not be subject to regular supervisory reporting requirements. A systemic risk authority likely would also need an appropriately calibrated ability to take measures to address identified systemic risks--in coordination with other supervisors, when possible, or independently, if necessary. The role of a systemic risk authority in setting standards for capital, liquidity, and risk-management practices for the financial sector also would need to be explored, given that these standards have both microprudential and macroprudential implications.

In general, much discussion will be needed regarding what can reasonably be expected from a macroprudential regime and how expectations, accountability, and authorities can best be aligned. Important decisions must be made about how the systemic risk regulation function should be structured and located within the government. Several existing agencies have data and expertise relevant to this task, so there are a variety of organizational options. In any structure, however, to ensure accountability, the scope of authorities and responsibilities must be clearly specified

Some commentators have proposed that the Federal Reserve take on the role of systemic risk authority; others have expressed concern that adding this responsibility would overburden the central bank. The extent to which this new responsibility might be a good match for the Federal Reserve depends a great deal on precisely how the Congress defines the role and responsibilities of the authority, as well as on how the necessary resources and expertise complement those employed by the Federal Reserve in the pursuit of its long-established core missions.

It seems to me that we should keep our minds open on these questions. We have been discussing them a good deal within the Federal Reserve System, and their importance warrants careful consideration by legislators and other policymakers. As a practical matter, however, effectively identifying and addressing systemic risks would seem to require the involvement of the Federal Reserve in some capacity, even if not in the lead role. As the central bank of the United States, the Federal Reserve has long figured prominently in the government's responses to financial crises. Indeed, the Federal Reserve was established by the Congress in 1913 largely as a means of addressing the problem of recurring financial panics. The Federal Reserve plays such a key role in part because it serves as liquidity provider of last resort, a power that has proved critical in financial crises throughout history. In addition, the Federal Reserve has broad expertise derived from its wide range of activities, including its role as umbrella supervisor for bank and financial holding companies and its active monitoring of capital markets in support of its monetary policy and financial stability objectives.



Conclusion

In the wake of the ongoing financial crisis, governments have moved quickly to establish a wide range of programs to support financial market functioning and foster credit flows to businesses and households. However, these necessary short-term steps must be accompanied by new policies to limit the incidence and impact of systemic risk. In my remarks today, I have emphasized the need to address the problems posed by firms that are perceived to be too big to fail, the importance of efforts to strengthen the financial infrastructure, the desirability of reducing the procyclical effects of capital regulation and accounting rules, and the potential benefits of taking a more macroprudential approach to the supervision and regulation of financial firms. Some of the policies I propose can be developed and implemented under the existing authority of financial regulators. Indeed, we are in the process of doing just that. In other cases, congressional action will be necessary to create the

requisite authority and responsibility.

Financial crises will continue to occur, as they have around the world for literally hundreds of years. Even with the sorts of actions I have outlined here today, it is unrealistic to hope that financial crises can be entirely eliminated, especially while maintaining a dynamic and innovative financial system. Nonetheless, these steps should help make crises less frequent and less virulent, and so contribute to a better functioning national and global economy.

Footnotes

1. Another important difference is that, unlike in the Asian crisis, investors have not fled U.S. markets. They have, however, fled from many private credit markets. [Return to text](#)
2. See, for example, Ben S. Bernanke (2009), "[Federal Reserve Policies to Ease Credit and Their Implications for the Fed's Balance Sheet](#)," speech delivered at the National Press Club Luncheon, National Press Club, Washington, D.C., February 18. [Return to text](#)
3. The Federal Reserve has issued enhanced guidance on consolidated supervision of bank and financial holding companies. See Board of Governors of the Federal Reserve System (2008), "[Federal Reserve Issues Guidance for Consolidated Supervision of Bank Holding Companies and Combined U.S. Operations of Foreign Banking Organizations](#)," press release, October 16. [Return to text](#)
4. Such an approach would also help offset the incentives for financial firms to become too big to fail. [Return to text](#)
5. International standards for central counterparties have been developed, and national authorities should work to ensure that all covered entities adhere to these standards. See Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions, Bank for International Settlements (2004), "[Recommendations for Central Counterparties](#),"  November. The benefits and costs of a central counterparty are discussed in "[Assessing the Potential for Instability in Financial Markets](#)," a speech delivered by Randall S. Kroszner (2008) at the Risk Minds Conference, International Center for Business Information, Geneva, Switzerland, December 8. [Return to text](#)
6. Primary dealers are broker-dealers that trade in U.S. government securities with the Federal Reserve Bank of New York. The New York Fed's Open Market Desk engages in trades on behalf of the Federal Reserve System to implement monetary policy. [Return to text](#)
7. In addition to ensuring that banking organizations comply with minimum regulatory capital requirements, supervisors also must ensure that organizations have the ability to assess their overall capital needs and hold capital commensurate with their individual risk profiles. [Return to text](#)
8. Internationally, the Financial Stability Forum and the Basel Committee have already begun such a review. [Return to text](#)
9. Financial Stability Forum (2008), "[Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience: Follow-Up on Implementation \(157 KB PDF\)](#),"  October 10. [Return to text](#)

 [Return to top](#)