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The Crisis as a Classic Financial Panic

Remarks by

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I am very pleased to participate in this event in honor of Stanley Fischer. Stan was my teacher in graduate school, and he has been both a role model and a frequent adviser ever since. An expert on financial crises, Stan has written prolifically on the subject and has also served on the front lines, so to speak--notably, in his role as the first deputy managing director of the International Monetary Fund during the emerging market crises of the 1990s. Stan also helped to fight hyperinflation in Israel in the 1980s and, as the governor of that nation's central bank, deftly managed monetary policy to mitigate the effects of the recent crisis on the Israeli economy. Subsequently, as Israeli housing prices ran upward, Stan became an advocate and early adopter of macroprudential policies to preserve financial stability.

Stan frequently counseled his students to take a historical perspective, which is good advice in general, but particularly helpful for understanding financial crises, which have been around a very long time. Indeed, as I have noted elsewhere, I think the recent global crisis is best understood as a classic financial panic transposed into the novel institutional context of the 21st century financial system.¹ An appreciation of the parallels between recent and historical events greatly influenced how I and many of my colleagues around the world responded to the crisis.

Besides being the fifth anniversary of the most intense phase of the recent crisis, this year also marks the centennial of the founding of the Federal Reserve.² It's particularly appropriate to recall, therefore, that the Federal Reserve was itself created in

¹ See Ben S. Bernanke (2012), "Some Reflections on the Crisis and the Policy Response," speech delivered at "Rethinking Finance," a conference sponsored by the Russell Sage Foundation and Century Foundation, New York, April 13, www.federalreserve.gov/newsevents/speech/bernanke20120413a.htm. For the classic discussion of financial panics and the appropriate central bank response, see Walter Bagehot ([1873] 1897), *Lombard Street: A Description of the Money Market* (New York: Charles Scribner's Sons).

² Information on the centennial of the Federal Reserve System is available at www.federalreserve.gov/aboutthefed/centennial/about.htm.

response to a severe financial panic, the Panic of 1907. This panic led to the creation of the National Monetary Commission, whose 1911 report was a major impetus to the Federal Reserve Act, signed into law by President Woodrow Wilson on December 23, 1913. Because the Panic of 1907 fit the archetype of a classic financial panic in many ways, it's worth discussing its similarities and differences with the recent crisis.³

Like many other financial panics, including the most recent one, the Panic of 1907 took place while the economy was weakening; according to the National Bureau of Economic Research, a recession had begun in May 1907.⁴ Also, as was characteristic of pre-Federal Reserve panics, money markets were tight when the panic struck in October, reflecting the strong seasonal demand for credit associated with the harvesting and shipment of crops. The immediate trigger of the panic was a failed effort by a group of speculators to corner the stock of the United Copper Company. The main perpetrators of the failed scheme, F. Augustus Heinze and C.F. Morse, had extensive connections with a number of leading financial institutions in New York City. When the news of the failed speculation broke, depositor fears about the health of those institutions led to a series of runs on banks, including a bank at which Heinze served as president. To try to restore confidence, the New York Clearinghouse, a private consortium of banks, reviewed the books of the banks under pressure, declared them solvent, and offered conditional

³ The Panic of 1907 is discussed in a number of sources, including O.M.W. Sprague (1910), *A History of Crises under the National Banking System*, National Monetary Commission (Washington: U.S. Government Printing Office), and, with a focus on its monetary consequences, Milton Friedman and Anna Jacobson Schwartz (1963), *A Monetary History of the United States, 1867-1960* (Princeton, N.J.: Princeton University Press). An accessible discussion of the episode, from which this speech draws heavily, can be found in Jon R. Moen and Ellis W. Tallman (1990), "Lessons from the Panic of 1907," Federal Reserve Bank of Atlanta, *Economic Review*, May/June, pp. 2-13, www.frbatlanta.org/filelegacydocs/ern390_tallman.pdf.

⁴ See Charles W. Calomiris and Gary Gorton (1991), "The Origins of Banking Panics: Models, Facts, and Bank Regulation," in R. Glenn Hubbard, ed., *Financial Markets and Financial Crises* (Chicago: University of Chicago Press), pp. 109-74.

support--one of the conditions being that Heinze and his board step down. These steps were largely successful in stopping runs on the New York banks.

But even as the banks stabilized, concerns intensified about the financial health of a number of so-called trust companies--financial institutions that were less heavily regulated than national or state banks and which were not members of the Clearinghouse. As the runs on the trust companies worsened, the companies needed cash to meet the demand for withdrawals. In the absence of a central bank, New York's leading financiers, led by J.P. Morgan, considered providing liquidity. However, Morgan and his colleagues decided that they did not have sufficient information to judge the solvency of the affected institutions, so they declined to lend. Overwhelmed by a run, the Knickerbocker Trust Company failed on October 22, undermining public confidence in the remaining trust companies.

To satisfy their depositors' demands for cash, the trust companies began to sell or liquidate assets, including loans made to finance stock purchases. The selloff of shares and other assets, in what today we would call a fire sale, precipitated a sharp decline in the stock market and widespread disruptions in other financial markets. Increasingly concerned, Morgan and other financiers (including the future governor of the Federal Reserve Bank of New York, Benjamin Strong) led a coordinated response that included the provision of liquidity through the Clearinghouse and the imposition of temporary limits on depositor withdrawals, including withdrawals by correspondent banks in the interior of the country. These efforts eventually calmed the panic. By then, however, the U.S. financial system had been severely disrupted, and the economy contracted through the middle of 1908.

The recent crisis echoed many aspects of the 1907 panic. Like most crises, the recent episode had an identifiable trigger--in this case, the growing realization by market participants that subprime mortgages and certain other credits were seriously deficient in their underwriting and disclosures. As the economy slowed and housing prices declined, diverse financial institutions, including many of the largest and most internationally active firms, suffered credit losses that were clearly large but also hard for outsiders to assess. Pervasive uncertainty about the size and incidence of losses in turn led to sharp withdrawals of short-term funding from a wide range of institutions; these funding pressures precipitated fire sales, which contributed to sharp declines in asset prices and further losses. Institutional changes over the past century were reflected in differences in the types of funding that ran: In 1907, in the absence of deposit insurance, retail deposits were much more prone to run, whereas in 2008, most withdrawals were of uninsured wholesale funding, in the form of commercial paper, repurchase agreements, and securities lending. Interestingly, a steep decline in interbank lending, a form of wholesale funding, was important in both episodes. Also interesting is that the 1907 panic involved institutions--the trust companies--that faced relatively less regulation, which probably contributed to their rapid growth in the years leading up to the panic. In analogous fashion, in the recent crisis, much of the panic occurred outside the perimeter of traditional bank regulation, in the so-called shadow banking sector.⁵

⁵ As discussed in Bernanke, "Some Reflections on the Crisis" (see note 1), shadow banking, as usually defined, comprises a diverse set of institutions and markets that, collectively, carry out traditional banking functions--but do so outside, or in ways only loosely linked to, the traditional system of regulated depository institutions. Examples of important components of the shadow banking system include securitization vehicles, asset-backed commercial paper conduits, money market funds, markets for repurchase agreements, investment banks, and mortgage companies.

The responses to the panics of 1907 and 2008 also provide instructive comparisons. In both cases, the provision of liquidity in the early stages was crucial. In 1907 the United States had no central bank, so the availability of liquidity depended on the discretion of firms and private individuals, like Morgan. In the more recent crisis, the Federal Reserve fulfilled the role of liquidity provider, consistent with the classic prescriptions of Walter Bagehot.⁶ The Fed lent not only to banks, but, seeking to stem the panic in wholesale funding markets, it also extended its lender-of-last-resort facilities to support nonbank institutions, such as investment banks and money market funds, and key financial markets, such as those for commercial paper and asset-backed securities.

In both episodes, though, liquidity provision was only the first step. Full stabilization requires the restoration of public confidence. Three basic tools for restoring confidence are temporary public or private guarantees, measures to strengthen financial institutions' balance sheets, and public disclosure of the conditions of financial firms. At least to some extent, Morgan and the New York Clearinghouse used these tools in 1907, giving assistance to troubled firms and providing assurances to the public about the conditions of individual banks. All three tools were used extensively in the recent crisis: In the United States, guarantees included the Federal Deposit Insurance Corporation's (FDIC) guarantees of bank debt, the Treasury Department's guarantee of money market funds, and the private guarantees offered by stronger firms that acquired weaker ones. Public and private capital injections strengthened bank balance sheets. Finally, the bank stress tests that the Federal Reserve led in the spring of 2009 and the publication of the stress-test findings helped restore confidence in the U.S. banking system. Collectively,

⁶ See Bagehot, *Lombard Street*, in note 1.

these measures helped end the acute phase of the financial crisis, although, five years later, the economic consequences are still with us.

Once the fire is out, public attention turns to the question of how to better fireproof the system. Here, the context and the responses differed between 1907 and the recent crisis. As I mentioned, following the 1907 crisis, reform efforts led to the founding of the Federal Reserve, which was charged both with helping to prevent panics and, by providing an “elastic currency,” with smoothing seasonal interest rate fluctuations. In contrast, reforms since 2008 have focused on critical regulatory gaps revealed by the crisis. Notably, oversight of the shadow banking system is being strengthened through the designation, by the new Financial Stability Oversight Council, of nonbank systemically important financial institutions (SIFIs) for consolidated supervision by the Federal Reserve, and measures are being undertaken to address the potential instability of wholesale funding, including reforms to money market funds and the triparty repo market.⁷

As we try to make the financial system safer, we must inevitably confront the problem of moral hazard. The actions taken by central banks and other authorities to stabilize a panic in the short run can work against stability in the long run, if investors and firms infer from those actions that they will never bear the full consequences of excessive risk-taking. As Stan Fischer reminded us following the international crises of the late 1990s, the problem of moral hazard has no perfect solution, but steps can be

⁷ For a more comprehensive discussion of recent changes in the regulatory framework, see Daniel K. Tarullo (2013), “Evaluating Progress in Regulatory Reforms to Promote Financial Stability,” speech delivered at the Peterson Institute for International Economics, Washington, May 3, www.federalreserve.gov/newsevents/speech/tarullo20130503a.htm.

taken to limit it.⁸ First, regulatory and supervisory reforms, such as higher capital and liquidity standards or restriction on certain activities, can directly limit risk-taking. Second, through the use of appropriate carrots and sticks, regulators can enlist the private sector in monitoring risk-taking. For example, the Federal Reserve's Comprehensive Capital Analysis and Review (CCAR) process, the descendant of the bank stress tests of 2009, requires not only that large financial institutions have sufficient capital to weather extreme shocks, but also that they demonstrate that their internal risk-management systems are effective.⁹ In addition, the results of the stress-test portion of CCAR are publicly disclosed, providing investors and analysts information they need to assess banks' financial strength.

Of course, market discipline can only limit moral hazard to the extent that debt and equity holders believe that, in the event of distress, they will bear costs. In the crisis, the absence of an adequate resolution process for dealing with a failing SIFI left policymakers with only the terrible choices of a bailout or allowing a potentially destabilizing collapse. The Dodd-Frank Act, under the orderly liquidation authority in Title II, created an alternative resolution mechanism for SIFIs that takes into account both the need, for moral hazard reasons, to impose costs on the creditors of failing firms and the need to protect financial stability; the FDIC, with the cooperation of the Federal Reserve, has been hard at work fleshing out this authority.¹⁰ A credible resolution

⁸ See Stanley Fischer (1999), "On the Need for an International Lender of Last Resort," *Journal of Economic Perspectives*, vol. 13 (Fall), pp. 85-104.

⁹ For example, see Board of Governors of the Federal Reserve System (2013), *Capital Planning at Large Bank Holding Companies: Supervisory Expectations and Range of Current Practice* (Washington: Board of Governors, August), www.federalreserve.gov/bankinfo/bcreg20130819a1.pdf.

¹⁰ For a more detailed discussion, see Daniel K. Tarullo (2013), "Toward Building a More Effective Resolution Regime: Progress and Challenges," speech delivered at "Planning for the Orderly Resolution of a Global Systemically Important Bank," a conference sponsored by the Federal Reserve Board and the

mechanism for systemically important firms will be important for reducing uncertainty, enhancing market discipline, and reducing moral hazard.

Our continuing challenge is to make financial crises far less likely and, if they happen, far less costly. The task is complicated by the reality that every financial panic has its own unique features that depend on a particular historical context and the details of the institutional setting. But, as Stan Fischer has done with unusual skill throughout his career, one can, by stripping away the idiosyncratic aspects of individual crises, hope to reveal the common elements. In 1907, no one had ever heard of an asset-backed security, and a single private individual could command the resources needed to bail out the banking system; and yet, fundamentally, the Panic of 1907 and the Panic of 2008 were instances of the same phenomenon, as I have discussed today. The challenge for policymakers is to identify and isolate the common factors of crises, thereby allowing us to prevent crises when possible and to respond effectively when not.