Financial Stability and Macroeconomic Policy—An Introduction to the 2009 Economic Policy Symposium

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In September 2008, the financial crisis that began in U.S. housing markets a year earlier intensified into the worst global financial and economic crisis since the 1930s. Financial markets around the world seized up, major financial institutions failed, and the financial contraction contributed to a global economic downturn. In response, central banks and governments around the world undertook unprecedented actions to shore up the financial system and to provide economic stimulus to combat the economic downturn.

With moderation in the crisis in recent months and growing signs of economic recovery, this year's symposium provided an opportunity for policymakers, academic economists, and financial market experts to reflect on the nature of the financial crisis, the effectiveness of policy interventions, and lessons that might be drawn from this experience to prevent similar crises in the future. This introduction highlights some of the key themes raised during the course of the discussion and provides a brief overview of the symposium presentations.

Overview

Recurrent financial crises appear to be a feature of modern marketoriented economies. Despite considerable innovation in financial markets and the introduction of financial instruments designed in part to allocate risk more efficiently, modern market economies remain vulnerable to periodic financial crises. Until the current crisis that began in the U.S. subprime mortgage market, many industrial countries, including the United States, experienced a long period of favorable economic conditions and low inflation. While financial crises occurred during this period in some countries, their effects tended to be localized. In the current crisis, though, many financial markets have seized up, institutions have failed, and economic activity has declined in many countries around the world.

In response, central banks, governments, and international institutions have taken unprecedented actions to mitigate the crisis. Many governments have closed financial institutions, injected capital into a range of systemically important financial institutions, broadened the scope of government guarantees in the financial system, and introduced large fiscal stimulus packages. Central banks, after drawing on traditional liquidity and monetary policy tools, have undertaken a number of unconventional policy actions. These include: direct support of important financial markets, lending to nonbank institutions and investors, and purchasing securities not typically held in central bank portfolios. As a result, some central banks have seen a significant change in the size and composition of their balance sheets, raising questions about both the risk exposure of central banks and, more importantly, about the design of exit strategies as the financial and economic crisis abates. And, with the spillovers of the crisis across the global economy, the International Monetary Fund (IMF) has again become a lender to a number of emerging-market economies affected by the crisis.

This year's symposium examined the crisis and policy response and assessed ways to prevent a reoccurrence of a future crisis and to develop better crisis resolution procedures. In terms of prevention, there was a strong consensus that the systemic features of this crisis point toward a more important role for macroprudential regulation and supervision. In addition, central banks need to do more, going forward, to resist the development of financial imbalances that threaten the stability of the financial system. Both of these views represent a considerable evolution in thinking in the central bank community from

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presentations made at previous Jackson Hole symposiums. In part, the emphasis on crisis prevention reflects concerns that the range of monetary and fiscal policy options available in a crisis may be constrained by the zero bound and longer-run fiscal imbalances and also by questions about the quantitative effectiveness of these options in a severe crisis.

In terms of crisis prevention and resolution, there was considerable support for a more effective system of capital requirements. But, there was also recognition that capital regulation was not a panacea. Consequently, there was also support for better resolution procedures for financial institutions, higher liquidity requirements, more effective supervision, and steps to influence risk-taking by managers of financial institutions. In addition, although participants generally agreed that central banks had taken timely and effective steps in dealing with the crisis, there was recognition that these procedures might be improved or modified in the future, especially in light of additional moral hazard concerns raised by central bank programs and government guarantees. Many participants also emphasized that, in the future, both crisis prevention and resolution need to reflect the global nature of financial markets, making international cooperation and coordination essential.

Symposium Presentations

In his opening remarks at the symposium, Federal Reserve Chairman Ben Bernanke focused on the intensification of the financial crisis in September-October 2008 and the policy response. He argued that the actions taken by central banks and governments over the past year were timely, did much to reduce the severity of the crisis, and helped contain the damage to the economy. He noted that the intensification of the crisis in the fall of 2008 had many of the features of a classic financial panic and helped motivate many of the specific policy actions undertaken by the Federal Reserve. He also highlighted the role that liquidity played in the crisis and emphasized both the need for better liquidity management and the necessity of developing a macroprudential approach to regulation. Such an approach would take account of the interdependencies among financial markets and institutions that can undermine the stability of the financial system.

A first step in determining how policymakers should respond to a crisis is to better understand how financial crises arise. Are they exogenous events, or do they stem from underlying imbalances that grow over time, perhaps exacerbated by flaws in regulatory or macroeconomic policies? In their paper, Ricardo Caballero and Pablo Kurlat suggested that severe financial crises have three elements: a significant negative surprise that reflects Knightian uncertainty; a large concentration of aggregate risk in systemically important, highly leveraged institutions; and a slow or inadequate policy response. To respond to future crises, they advocated the need for a systemic approach to providing government insurance guarantees, via tradable insurance credits (TICs), in preference to the ad hoc and belated extension of guarantees in this crisis.

In his discussion, Kenneth Rogoff took issue with both the authors' interpretation of the causes of financial crises and their proposed remedy. Rogoff thought that leverage and poor regulation played a more central role in crises and that providing government insurance guarantees via TICs could worsen moral hazard problems going forward. At the same time, he agreed with Caballero that governments' response to crises needed to be more systematic and that financial market participants needed to pay for the free insurance that they might receive in a severe crisis.

Another prerequisite in formulating a policy response is an understanding of the relationship between financial markets and real economic activity. What are the channels through which financial crises are transmitted to the real economy, and what are their quantitative effects? Understanding these connections is crucial in determining how central banks and fiscal authorities can best respond to and resolve financial crises.

In the next session, Stephen Cecchetti, Marion Kohler, and Christian Upper attempted to put the current crisis in historical perspective and measure the likely quantitative effects of the crisis on economic activity. Cecchetti noted the unique nature of the current crisis, which made it difficult to gauge its economic impact using information from past crises. However, based on key factors in past crises, he argued that

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available evidence suggested that the economic effects of this crisis could be especially severe.

In his discussion, Mark Gertler attributed the current crisis more to regulatory failure than to low interest rates in the period leading up to the crisis. He also noted that the effects of the collapse in an asset-price bubble were likely to be more severe when they directly affect the banking sector. Gertler also suggested that the effects of this crisis on economic activity might differ from past crises because of the large and timely policy response.

Historically, central banks have played a key role in the policy response to serious financial crises. Indeed, maintaining financial stability is often viewed as an important unwritten mandate for central banks alongside more explicit mandates for price stability and employment. One major element of central banks' policy response to this crisis was to alter the composition of their balance sheets to provide liquidity to the financial system in the form of lending facilities and lender-of-last-resort operations to stabilize the financial system and prevent spillovers to the broader economy.

In the current financial crisis, the Federal Reserve and many other central banks went far beyond the typical central bank policy response when it became apparent that traditional liquidity measures and lending facilities were not sufficient to address the crisis. During a crisis, central banks typically provide increased liquidity through the banking system, which then distributes liquidity to the broader financial system. In the current crisis, this transmission mechanism appears to have become less effective, with banks reluctant to lend to one another or to other borrowers except under prearranged facilities. As a result, a number of central banks have altered and expanded their liquidity programs for banks and have accepted a broader range of eligible collateral for their lending facilities.

A panel of Brian Madigan, Charles Goodhart, and Jean-Charles Rochet discussed the actions taken by central banks to stabilize financial markets during the crisis and what might be learned that could help central banks better address future crises. In his remarks, Brian Madigan provided a detailed discussion of the Federal Reserve's

liquidity and lending policies during the crisis through the lens of Bagehot's principles for central bank lending. Madigan argued that the Fed's actions were largely consistent with Bagehot's advice as modified to deal with the complexity of the modern financial system and the unique features of this crisis.

Charles Goodhart focused his discussion on the lessons that central banks might draw from this crisis to better improve future policy. He argued that one lesson from this crisis is that central banks have more scope to alter the parameters of the corridor system of interest rate control, for example, by altering the spread and symmetry of the spread to influence bank behavior. Goodhart also suggested that central banks might want to rethink the role and structure of liquidity facilities by requiring banks to borrow on a routine basis and perhaps think of the role of the central bank in a crisis as providing insurance rather than liquidity. He also stressed the importance of thinking about liquidity regulation from an international perspective because central banks provide liquidity on a national basis, while financial institutions tend to manage liquidity without regard to national borders.

In his remarks, Jean-Charles Rochet addressed the issue of making central banks' mandate for financial stability more explicit. He argued that the goal of macroprudential supervision should be to protect the functioning of systemically important markets and not individual banks and other financial institutions. Those institutions having direct access to these markets would be subject to stricter central bank oversight. Rochet also suggested that reliance on stricter capital requirements would not be sufficient to prevent future crises and that regulation needed to focus more on the incentives for managers of financial institutions to take on excessive risk. In his view, it was quite appropriate for regulation to be directed toward the form but not the level of financial industry compensation practices.

In his luncheon remarks, Stanley Fischer drew on his extensive experience as a central bank governor, and previous positions at the IMF, on Wall Street, and in academia to provide a broad overview of the crisis, the policy response, and key reforms to reduce the frequency and mitigate the severity of future crises. In this regard, Fischer focused both on what changes in regulation and supervision would be most helpful in crisis

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prevention and the role that central banks and macroprudential regulation might play in preventing the buildup of financial imbalances. He also discussed how lessons from the current crisis might be used productively by central banks in the future and how international coordination, cooperation, and financial market surveillance might be improved.

The second day of the symposium opened with a session examining whether the current crisis has implications for the goals and objectives of monetary policy and the implementation of monetary policy. Both the presentation by Carl Walsh and the discussion by Bank of Canada Governor Mark Carney suggested that central banks would need to fundamentally rethink monetary policy in light of the crisis.

In his remarks, Carl Walsh reviewed the adequacy of current macroeconomic theory and potential problems for monetary policy caused by the zero bound on interest rates. According to Walsh, the consensus flexible inflation-targeting model employed by central banks needs to be modified in several respects. The absence of financial factors in the model leaves policymakers without a clear idea of the role that financial factors play in the monetary policy transmission process and how financial disturbances can be amplified and spill over to the real economy. Walsh also suggested that central banks needed to formally take account of financial market distortions, both assetprice bubbles and their distortions to real resource allocation, and be willing to trade off inflation and economic stability with financial stability as needed. He also suggested that central banks might want to look at the potential superiority of price-level targeting over inflation targeting. In his discussion of the constraints that the zero bound may pose for monetary policy, Walsh concluded that central banks had potential policy tools to affect longer-term interest rates in terms of managing expectations and methods of influencing term and risk premia. However, he noted that the effectiveness of these alternatives was still an open question and some of these alternatives raised issues about the proper scope of central bank activities.

In his discussion, Mark Carney agreed with Walsh about the inadequacy of current macroeconomic models and that formally incorporating financial stability into central banks' mandates would require major changes in central bank thinking and implementation of monetary policy. He noted the emerging consensus that "price stability does not guarantee financial stability and is, in fact, often associated with excess credit growth and emerging asset-price bubbles" and called for a deeper understanding of financial system dynamics and the relationship among financial stability, price stability, and economic stability. He also stressed that the crisis has highlighted the fact that the financial transmission mechanism is not static but both highly variable and procyclical and that expectations of future monetary policy can affect these dynamics. According to Carney, although regulation remains the first line of defense against financial instability, central banks may have to revisit how to balance flexibility and credibility in achieving price stability over the longer term, perhaps by focusing on the merits of price-level targeting.

While monetary policy has played a key role in the response to the financial crisis, the worsening economic environment in late 2008 and early 2009 led governments around the world to implement substantial fiscal stimulus. In their presentation, Alan Auerbach and William Gale examined the fiscal policy actions taken in the United States and evaluated the existing empirical literature on the size of fiscal multipliers and the effectiveness of fiscal policy as a stabilization tool. Auerbach and Gale noted that there has been an increasing trend toward more active use of fiscal policy in recent years, despite considerable skepticism from academic economists about the usefulness and effectiveness of fiscal policy and despite serious concerns about long-run fiscal sustainability due to the burden of social insurance programs. In their review of the empirical literature on fiscal multipliers, they noted the wide range of estimates for tax and spending changes, which made it difficult to judge the likely effectiveness of fiscal actions. A particular difficulty in obtaining reliable fiscal multipliers is that these multipliers likely depend on the state of the economy and the stance of monetary policy. Thus, historical multipliers may be less useful in the current severe economic and financial climate, which has little precedent outside of the 1930s and the recent Japanese experience.

Two discussants, Glenn Hubbard and Klaus Schmidt-Hebbel, commented on the Auerbach-Gale paper. In his remarks, Hubbard

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noted that Auerbach and Gale had focused on traditional fiscal actions—tax and spending policy—and overlooked the substantial fiscal actions aimed at recapitalizing financial institutions and stabilizing financial markets. In Hubbard's view, these actions were significant and perhaps more important than the traditional fiscal actions. He was also more skeptical about the size of traditional multipliers than Auerbach and Gale and emphasized that the dire longer-run fiscal outlook may blunt the effectiveness of the temporary stimulus measures. In his discussion, Schmidt-Hebbel provided estimates of fiscal multipliers for a number of other Organization for Economic Cooperation and Development (OECD) countries and suggested that the international evidence supported the likely effectiveness of fiscal actions in the current crisis. He also argued that most countries needed a greater degree of countercyclicality in fiscal policy, which could be better provided by explicit countercyclical rules rather than by ad hoc discretionary actions.

The closing session of the 2009 symposium was a panel consisting of Bank for International Settlements (BIS) General Manager Jaime Caruana, Bank of Japan Governor Masaaki Shirakawa, and European Central Bank (ECB) President Jean-Claude Trichet. The panel focused on the international dimensions of the financial crisis and how future crises might be prevented.

Jaime Caruana focused his remarks on how to make a macroprudential approach to regulation and supervision operational. According to Caruana, the macroprudential approach has two important dimensions. The cross-section dimension looks at how risk is distributed across institutions and markets at a point in time, while the time dimension emphasizes how aggregate risk evolves over time. The cross-section dimension aims to capture systemwide risk that arises from common risk exposures and adjusts prudential supervision and regulation based on institution-specific contributions to this risk. The time dimension focuses on how systemwide risks evolve over time, including their amplification within the financial sector and the possible feedback between the financial sector and the real economy. Caruana noted that important work is now under way

at the BIS and other institutions to make the macroprudential approach operational.

In his presentation, Masaaki Shirakawa discussed the lessons learned from this crisis that should shape central bank policy in the future and the potential scope for international coordination and cooperation among central banks in dealing with future crises. With regard to lessons learned, Shirakawa suggested that central banks have a responsibility for preventing asset-price bubbles and financial imbalances. However, like others at the symposium, he suggested that macroprudential supervision and regulation should be the primary policy tool, and a central bank's role was to ensure that "unfounded expectations for the continuation of low interest rates" does not contribute to assetprice bubbles and the development of financial imbalances. He also emphasized the importance of making the financial and payments system more resilient to shocks and improving liquidity provision mechanisms both domestically and internationally. With regard to international cooperation and coordination, Shirakawa emphasized the need for better information-sharing about financial risk exposures. He also applauded central banks' cross-border, funds-supplying operations in the current crisis and thought that this represented a better avenue for international cooperation than an attempt to coordinate monetary policy actions across countries in a crisis.

In the final presentation at the symposium, Jean-Claude Trichet provided his perspective on some of the lessons learned by central banks in the challenging times of the past two years. In his view, this crisis has changed the debate on central banks and asset bubbles. Central banks do need to "lean against the wind" against the formation of asset-price bubbles and financial imbalances but should not proceed in a mechanical way. Rather, he suggested that the ECB's two-pillar approach allowed such considerations to be incorporated into central bank decisions through a close monitoring of financial and monetary conditions. Trichet also argued that the ECB's interest rate policy continued to be effective during the crisis and that the ECB had avoided confronting the zero interest rate bound because ECB actions had been viewed by financial markets as consistent with a credible commitment to long-run price stability. At the same time,

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he noted that in times of severe financial stress, the monetary transmission mechanism may become impaired, requiring central banks to provide "enhanced credit support" to address liquidity problems and complement interest rate reductions.