Five years after the first events that culminated in the global financial crisis, central banks continue to cope with its reverberations. The challenges include maintaining stable inflation and restoring growth, while at the same time seeking ways to mitigate threats to financial stability. Central banks have responded to these challenges in various ways, including the pursuit of policies outside of their standard toolbox. Navigating these challenges was the focus of the Economic Policy Symposium, sponsored by the Federal Reserve Bank of Kansas City, on Aug. 30-Sept. 1, 2012, in Jackson Hole, Wyo.

The symposium, titled “The Changing Policy Landscape,” brought together a distinguished group of policymakers, financial market experts and academic economists to discuss the array of challenges facing policymakers and central banks. Over the course of three days, several key themes emerged. First, central banks have taken aggressive action in many countries, but may not have exhausted the available tools. Even in cases where short-term interest rates have hit an effective lower bound, some argued that communication strategies, targeting non-traditional variables, or expanding the scope of assets a central bank purchases remain tools that could be used more effectively. The second theme was that designing and implementing policies to enhance financial stability remains an important goal for both central banks
and international organizations. And third, economic recoveries from a financial crisis are often slow, and understanding exactly why is not always straightforward. For policymakers, understanding if such crises leave permanent scars and, thereby, structurally alter the economy, is essential in crafting an appropriate policy response.

**Nontraditional Monetary Policy after the Crisis**

Since the crisis and after short-term rates hit their effective lower bound in many countries, central banks have utilized nontraditional monetary policy tools to help foster a faster recovery. In his opening remarks at the symposium, Chairman Ben S. Bernanke discussed the use of such tools in the United States. Purchases of Treasury and agency mortgage-backed securities by the Federal Reserve were viewed as influencing financial conditions in a way that supported economic activity. Bernanke also emphasized communication tools and, in particular, the role forward guidance can play in providing additional monetary accommodation. For example, the Federal Reserve provided explicit guidance about how long the policy rate likely would remain near its effective lower bound in an effort to add further monetary accommodation. While evidence suggests these tools can be effective in supporting the recovery, he also noted that they need to be deployed only when the perceived benefits exceed the costs. For example, large-scale asset purchases may pose a risk to the functioning of some financial markets or raise questions from the public regarding the Fed’s ability to effectively exit from a highly accommodative policy stance. Low rates for an extended period also may pose risks to financial stability. Bernanke concluded by noting that the benefits and costs of nontraditional policies are uncertain and may change over time, requiring a “high hurdle” to be deployed.

Central bank communication strategies and balance sheet policies also were the focus of a symposium paper by Michael Woodford of Columbia University. As Bernanke had discussed, one purpose of the guidance is to lower longer-term interest rates, which often is viewed as a mechanism to boost aggregate demand. In terms of the Federal Reserve’s approach in the United States, Woodford suggested forward guidance could be used more effectively. He proposed, as one
possibility, a target for nominal GDP as a guidepost for monetary policy when short-term rates are near their lower bound.

In terms of asset purchases, Woodford was more skeptical of their ability to effectively stimulate real activity. For example, he argued that asset purchases designed to increase the level of bank reserves should not affect real activity at the lower bound unless they lead to a permanent increase in the money supply, in which case they would imply a different interest rate policy after the lower bound ceases to bind.

Adam S. Posen of the Bank of England, who discussed Woodford’s paper, argued that the impact of central bank actions are multifaceted, and questioned whether the effects of forward guidance can be cleanly separated from those of asset purchases. In many cases, financial markets immediately respond to asset purchases in a way that eases financial conditions and should be supportive of real economic activity. Instead, Posen asked what he views as a more salient question, which is why aren’t these policies making the economy “go, go, go”? The answer rests in an assessment of the economic conditions that would have prevailed had central banks not engaged in asset purchases and, also, an evaluation of whether the effects of the asset purchases on the real economy are as big as expected.

The effectiveness of asset purchases depends, in part, on the substitutability of financial assets and the extent to which financial markets are impaired. Posen said he views central bank asset purchases as effective if they push investors out of their preferred habitat. He also suggested that central banks should consider “unconventional” asset purchases, rather than forward guidance. While such an approach may be viewed as beyond traditional central bank practices, he noted that such policies have been pursued before and are not regularly associated with undesirable outcomes. He also noted that financial markets often may be more impaired than commonly perceived, suggesting, in contrast to Woodford, that asset purchases may be effective in further supporting economic activity.

**Enhancing Financial Stability**

Symposium participants were interested not only in how monetary policy can be used more effectively to support a faster recovery,
but also in what measures can be taken to avoid a financial crisis in the future. For example, understanding and mitigating “contagion,” which was a central feature of the financial crisis that began in 2007, likely will play an important role in preserving global financial stability in the future. An important lesson of past crises is that adverse events in one country can affect other countries through a variety of channels and in unexpected ways. For example, financial stress that originated with the U.S. subprime mortgage market moved to other advanced economies and then to emerging markets. More recently, the European sovereign debt crisis that started in Greece spread to Ireland and Portugal. Larger economies within the eurozone, such as Italy and Spain, also have faced considerable pressure.

Understanding whether contagion occurs due to some commonality across affected countries—be it economic, financial, regulatory, or institutional—or whether it is due to spillover channels connecting the countries is important for crafting an appropriate policy response. Untangling some of the various transmission mechanisms that can result in contagion was the focus of the symposium paper written by Kristin J. Forbes of the MIT Sloan School of Management. Forbes investigated several possible sources of contagion and found that trade linkages, bank lending practices, the reaction of portfolio investors and a broadly shared reassessment of a country’s fundamentals, or “wake-up calls,” all play some role in transmitting negative economic shocks across national borders. However, she also found that domestic banking leverage plays a critical role in determining the vulnerability to contagion, since a negative shock in one country can cause highly levered banks in other countries to reduce the credit they supply.

Forbes recommended policies to mitigate contagion that target each of the four channels. Diversifying trading partners, reducing leverage in the domestic banking system, adopting policies to ensure foreign portfolio investment liabilities are well balanced by assets and improving macro fundamentals will likely reduce contagion risks over the long term. Also, being sure that markets and the public understand the “rules of the game” can help prevent a shock from spilling over to other countries.
The importance of the “rules of the game,” which can be thought of as providing clarity about how policymakers will respond to various events, also was emphasized by the discussant of the paper, Franklin Allen of the University of Pennsylvania. He applied this thinking to a case in which a country may have to exit the eurozone. To reduce the potential that such an event would trigger broader contagion, he emphasized that there should be an understanding of how an exit would work. For example, he argued a Greek exit from the eurozone certainly would be a negative shock, but also might provide a precedent for how an exit would occur if a larger country also needed to exit. Without such a precedent, Allen suggested that the exit of a larger country, such as Italy or Spain, could trigger contagion across the global economy.

Policies to ensure financial stability also were tackled through a vivid analogy in a symposium paper titled “The Dog and the Frisbee,” by Andrew G. Haldane of the Bank of England. In pondering the ability of a dog to master the art of catching a Frisbee, Haldane noted that it does not derive from the dog’s understanding of physics, but instead from following a simple rule. To catch a crisis, he suggested policymakers should consider addressing the complexity of financial supervision in a similar fashion—namely, by following simpler rules. A central message is that complex financial regulation developed over the past decades might be costly and cumbersome, as well as suboptimal. To illustrate, he pointed to evidence that in the case of more complex global banks, simple leverage ratios were a more accurate predictor of failure during the crisis than more complex risk-weighted capital measures.

While simple rules are often preferable, the discussant, José De Gregorio of the University of Chile, argued they may not always be possible. Domestic policies often are subject to political pressures that breed complexity, and regulators may not have incentives to rely on simple rules. For example, regulators may pursue complex rules as a defensive mechanism because they don’t want to be accused of negligence. De Gregorio suggested that one mechanism to guard against complexity is for international bodies to help coordinate and instigate simpler regulatory frameworks. He noted, however, that
domestic regulators cannot rely on international standards alone, so national regulations must be put in place and driven by independent institutions, such as central banks.

Improving international coordination also was a theme discussed in a luncheon address by Jaime Caruana of the Bank for International Settlements. While international cooperation and agreed-upon standards in the regulatory arena has deepened over several decades, Caruana pushed the idea further by asking whether the increase in cooperation also should apply to monetary policy. After the end of the Bretton Woods system, monetary policy has remained largely in the domestic domain of central banks. In contrast, banking regulators have worked together to coalesce around a common framework and engage in joint decisionmaking. Caruana argued that the crisis has further deepened the extent of cooperation in the regulatory sphere, but not in the conduct of monetary policy. Despite temporary measures, such as the coordinated efforts of several central banks to provide foreign-currency funding through swap lines, several factors remain that inhibit broader cooperation. For example, he noted that monetary policy can redistribute wealth between debtors and creditors, which gives rise to domestic political considerations and can stand in the way of deeper international cooperation. Caruana concluded that although he is skeptical about implementing formal cooperative frameworks, central banks should seek to complement their analysis of domestic economic conditions with a global perspective.

The Longer-Term Impact of the Crisis on the Real Economy

In addition to their interest in how to design policies that guard against future crises, symposium participants also wanted to know how economies recover from such crises. Prior to the crisis, households in several countries substantially increased their indebtedness, and some financial institutions did not fully appreciate the magnitude and scope of risk added to their balance sheets. The implications of these imbalances for the economy and monetary policy were the focus of a paper presented by Markus K. Brunnermeier and Yuliy Sannikov of Princeton University. The authors discussed how the boom phase of a cycle often ends with a trigger event that can lead to sharp declines in asset prices and deflationary spirals. The resulting negative
feedback loop often generates substantial volatility in financial markets and can be challenging for policymakers to stop. Thus, the authors see price stability and financial stability as closely linked, and emphasized that monetary policy plays an important role in maintaining financial stability through its effects on asset values and balance sheets. The impact of monetary policy following a crisis, however, differs across various sectors of the economy. For example, lower short-term interest rates reduce the funding costs for banks. If competition is limited, banks may not pass their lower costs to consumers and, instead, use proceeds from higher net interest margins to recapitalize themselves. The authors noted that such examples point to redistributive channels associated with monetary policy.

Monetary policy, however, may not be the best-suited tool to repair balance sheets following a financial crisis. In discussing the paper by Brunnermeier and Sannikov, Amir Sufi of the University of Chicago Booth School of Business emphasized the role of household leverage both before and after the crisis. Highly levered households suffered more during the crisis and may continue to face constraints on their ability to obtain new credit due to impaired credit scores and lower net worth—or, they simply may want to delever and increase their savings. Sufi argued that aggressive monetary easing, or support of the financial system, may not be the best policy options in these circumstances. Instead, fiscal policy options may be more effective, including options that support refinancing for households that have underwater mortgages but that otherwise are solvent.

The financial crisis not only damaged household balance sheets. It also caused massive upheaval in labor markets. In the United States, the unemployment rate reached its highest level in 25 years and has fallen more slowly than what is typical following such a severe recession. Edward P. Lazear of Stanford University and James Spletzer of the U.S. Census Bureau assessed to what extent the rise might persist due to structural changes in the labor market. Given that unemployment about doubled in a little more than two years, the authors noted that such sharp swings often are the hallmark of cyclical rather than structural forces. In addition, unemployment peaked at an even higher rate in the early 1980s, a time in which there also was speculation that a
A structural shift had occurred that could possibly lead to a persistently higher level of unemployment. But as unemployment steadily declined over the remainder of the decade, such speculation was unfounded. Delving deeper into current data, the authors assessed whether the housing boom and financial crisis ultimately led to labor market mismatch by comparing the ratio of unemployed persons to job openings across various occupations and industries. Mismatch measured in this way was found to be no worse than it was prior to the recession. In general, Lazear and Spletzer concluded that there currently is no compelling evidence to suggest a structural shift has occurred in the labor market.

Determining whether structural changes occur in real time, however, has been a major challenge for policymakers. In discussing Lazear and Spletzer’s paper, Athanasios Orphanides of the Center for Financial Studies illustrated that real-time estimates of the natural rate of unemployment are often slow to signal structural changes. His analysis suggested current estimates of the natural rate of unemployment could be revised by as much as 2 percentage points with future hindsight, and he referred to the 1970s as a period when such revisions occurred. To better gauge if structural change has occurred, Orphanides suggested policymakers need to focus on both evolving trends in labor markets and inflation.

**Perspectives on Policy Coordination**

Participants on the symposium’s closing panel discussed issues related to the global economy and how the financial crisis has affected the level of coordination between fiscal and monetary authorities. Alan S. Blinder of Princeton University argued that during a financial crisis, the incentives and policy objectives of the fiscal authority and central bank are well aligned, so coordination is often both inevitable and desirable. As crises end, however, Blinder sees an appropriate disengagement between the two policymaking arms and the need for central banks to reassert their independence. If the crisis lingers, however, this disengagement can be delayed. Stanley Fischer of the Bank of Israel extended the theme, noting that the eurozone crisis has kept the European Central Bank working closely with
fiscal authorities. In stemming the crisis, he noted three policies that have received the greatest attention: efforts to create a fiscal union, a banking union and a mechanism to enforce fiscal discipline. The engagement of the ECB in these areas varies, but the nature of the crisis has kept the monetary policy makers actively engaged with those pushing for banking and fiscal policy reforms.

From an emerging markets perspective, Zeti Akhtar Aziz of the Central Bank of Malaysia discussed how the emerging market economies have recovered following the crisis. She noted that the highly accommodative level of global monetary policy has led to periodic surges of capital inflows into some countries. Such inflows lead to challenges, but she noted that reforms following the financial crisis in Asia over a decade ago helped insulate some emerging Asian economies from the disruptions caused by the global financial crisis. She pointed to an enhanced macroprudential policy toolbox as more broadly aiding and supporting financial stability in emerging Asia. She concluded by noting that continued cooperation among policymakers can help foster future growth, build resilience in the financial system to future shocks and meet new challenges in the constantly changing policy landscape.