Macroeconomic Challenges: The Decade Ahead– An Introduction to the 2010 Economic Policy Symposium

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In the late spring of 2009, the world economy began to recover from the deepest global recession of the post-World War II era. In a number of countries where the housing crash and financial crisis still reverberate, particularly the United States, the pace of economic growth has been moderate in the first year of the recovery, contrasting with the historical relationship between the depth of recessions and strength of recoveries. As a consequence, policymakers continue to seek ways to stem the fallout from the crisis, promote a faster recovery, and prevent a recurrence of these events.

During the depths of the crisis, normal monetary policy instruments were pushed to their limits in some countries, giving way to unconventional policy actions that have left central banks with expanded balance sheets. Going forward, when and how to unwind these actions remain important topics of debate. In addition, the severity of the crisis has again raised questions about whether central banks should actively fight asset bubbles and, if so, the proper tools to use.

Fiscal policy has also come under renewed scrutiny. In a number of countries, budget deficits have grown dramatically, partly as a result of capital injections, countercyclical stimulus and automatic stabilizers. These large deficits will need to be unwound to prevent the types of sovereign debt crises that have affected the periphery of the euro zone. But even greater fiscal liabilities loom on the horizon, due to entitlement programs and an aging population.

With uncertainty surrounding the near-term picture, this year's symposium addressed not only near-term policy concerns but also the longer-term picture as well. The Federal Reserve Bank of Kansas City sponsored the symposium, "Macroeconomic Challenges: The Decade Ahead," held in Jackson Hole, Wyoming, on Aug. 26-28, 2010. A distinguished group of policymakers, academic economists and financial market experts gathered to identify some of these important challenges and present potential solutions. This introduction provides a brief overview of the symposium presentations and highlights key themes raised during the course of the discussion.

Challenges

The conference began with two presentations identifying some of the short-term and longer-term challenges faced by the broad macroeconomy.

In his opening remarks, Chairman Ben Bernanke summarized recent developments in the U.S. economic outlook, highlighting the uneven nature of the recovery. Over the last year, the moderate pace of growth had not been sufficient to reduce the unemployment rate by a substantial amount, while core inflation had remained positive but relatively low. In addition, some indicators suggested the pace of the recovery had slowed, raising uncertainty as to whether this might represent a temporary setback or a more pernicious trend.

As a result, with the federal funds rate target set to a range of 0 to 25 basis points and the size of the Federal Reserve's balance sheet stable at slightly more than \$2 trillion, Chairman Bernanke described several further policy options available to the Federal Open Market Committee (FOMC), if further stimulus were deemed necessary. These options included making additional purchases of long-term securities, modifying the FOMC's communications and reducing the interest rate on excess reserves. Chairman Bernanke noted that each of these options had both benefits and drawbacks, which would have

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to be weighed carefully by the FOMC. Moreover, given the headwinds facing the economy, it was not clear that central bankers alone could solve the world's economic problems.

The second presentation, and the first paper of the symposium, helped frame some of these headwinds in a larger, historical context. Carmen Reinhart and Vincent Reinhart studied the behavior of a number of macroeconomic variables in the 10-year periods preceding and following notable international crises of the past. The authors showed that macroeconomic performance tends to be poor in the 10 years following a severe crisis. Real per capita gross domestic product (GDP) growth rates were lower than in the 10 years before the crisis. Real house prices failed to return to their pre-crisis peaks. Unemployment remained persistently higher. And, reflecting broad-based weakness, inflation was lower.

The paper did not attempt to disentangle correlation from causation, but it documented one more suggestive fact. In the 10-year periods preceding crises, countries tended to experience sizable, long-lived surges in credit, while afterward, similar amounts of deleveraging took place over a comparable time span. This pattern suggests that the credit cycle may play a crucial role in fueling the boom and, as the cycle is reversed, in impeding the subsequent recovery.

In discussing the paper, William White applauded the compilation and presentation of what he called the "awkward" facts. In line with a growing body of work from the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD), and other researchers, these results lead to the uncomfortable conclusion that deep, protracted slumps are indeed possible. Moreover, such findings present a challenge to the current generation of economic models that feature powerful self-correcting mechanisms and potent roles for stabilization policies.

White also emphasized that more study is necessary on the role of the credit cycle in the buildup to and fallout from the crisis. He stressed that one needs to examine both the supply and the demand sides of the cycle, especially after the bust, which is relevant for the situation in which many countries find themselves today: Though

much effort is aimed at repairing the lending (supply) channel, this may be ineffective if the problem is actually on the demand side. Finally, he noted that OECD research shows a decline in potential output in the aftermath of crises, reinforcing the long-term negative consequences of these events.

Credit also played an important role in the second symposium paper, by Lawrence Christiano, Cosmin Ilut, Roberto Motto, and Massimo Rostagno. Using 200 years of data on U.S. stock prices and inflation, the authors documented an intriguing pattern. In the stock market booms examined, inflation tended to be lower than its average rate. Such a pattern was also present in Japan during the 1980s, when inflation was relatively low while the stock market boomed. This relationship poses a problem for monetary policy makers who follow a simple Taylor rule, in which interest rates are lowered in response to declines in inflation. In this case, a stock market boom, coupled with low inflation, would cause policymakers to lower interest rates, which in turn would amplify the boom-bust cycle.

A better policy, the authors suggested, would be one in which interest rates rise in line with the natural rate of interest, thus helping to mitigate the boom-bust cycle. Unfortunately, the natural rate of interest is unobservable. But, the authors argued, credit growth could be a useful proxy in the Taylor rule. Augmenting a Taylor rule to include credit growth, rather than focusing solely on inflation, would lead to improved macroeconomic outcomes. Such a finding strengthens the case for monetary policy makers to pay more attention to financial variables and not just consider macro variables, such as inflation and output, when setting interest rates.

In discussing the paper, John Geanakoplos agreed that monetary policy makers should be concerned about credit growth. He couched this concern, however, in different terms. In his view, central bankers should attempt to tame asset bubbles by managing the leverage cycle as well as interest rates.

The leverage cycle, he argued, has powerful, recurring effects. In normal times, it produces too much leverage and asset prices that are too high, while in crises, it produces too little leverage and asset

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prices that are too low. During crises, uncertainty begets a desire for more collateral, which leads to deleveraging. This deleveraging increases the uncertainty about who will ultimately go bankrupt after defaulting, in a process that can last for an extended period. To help prevent these types of boom-bust leverage cycles, Geanakoplos advocated collecting and making more leverage data available to the public, regulating and restricting leverage during normal times, and—should a crisis nevertheless occur—reducing uncertainty by quickly writing down principal.

An expanded role for stronger regulation in preventing asset bubbles was also a key conclusion of the symposium paper by Charles Bean, Matthias Paustian, Adrian Penalver, and Tim Taylor. The authors first examined the role of monetary policy in the buildup to the crisis in the United States and United Kingdom. They found that accommodative monetary policy played a role in contributing to excess credit growth and house price inflation in both countries. But, they found, the role was relatively modest—smaller than the contributions made by the low volatility associated with the Great Moderation. This finding suggests that a policy of keeping interest rates higher than normal to "lean against the wind" in preventing asset bubbles might be useful.

The analysis suggested that using interest rates as the only policy tool to fully head off asset bubbles could require extremely high rates, posing large negative consequences for the real economy. Instead, the authors showed that if the monetary authority could also deploy macro-prudential regulatory policies to target areas where imbalances were being created, these instruments could more effectively deal with the imbalances, thus allowing conventional monetary policy to focus on fluctuations in inflation and output. Moreover, the phrase "conventional monetary policy" is significant in this context. The authors suggested that as a crisis recedes, monetary policy should return to targeting a short-term interest rate and that "asset purchases aimed at flattening the yield curve are probably best kept in the locker marked 'For Emergency Use Only."

Alan Blinder provided the first discussion of the paper. While agreeing with much of the analysis, he noted that several issues deserved

further thought. In the first of these, Blinder observed that a "new consensus" is beginning to emerge regarding the appropriate way that monetary policy should deal with bubbles. When faced with an equity-like bubble with little debt, the "mop-up-after" strategy can still be appropriate. But when faced with a debt-financed, bank-lending-financed bubble, the case for intervention—primarily through supervisory and regulatory tools—to arrest the bubble is much stronger. Ensuring that central banks have appropriate knowledge about the nature of the bubble, Blinder reasoned, requires that they have a role in bank supervision and regulation. Which macro-prudential policies are most effective in reining in credit growth, however, remains an open issue.

Further, in echoing the earlier commentary of William White, Blinder also questioned the role of the New Keynesian model as the dominant modeling paradigm. Given the shortcomings of this framework, he wondered whether a New Minskyian model might be more appropriate for considering bubbles, financial stability, and macro-prudential supervision and regulation.

In the second discussion of the Bean et al. paper, John Taylor agreed with a number of the authors' findings: Low rates had a role in the crisis; unorthodox monetary policy has no role during normal times; and monetary authorities should not raise their inflation target. But on other points, he offered a different view. He argued that the role of accommodative policy in the crisis was not as modest as the authors suggested; unorthodox policies did not have a large effect during the depths of the crisis; and there is not a need for additional discretionary policy tools.

Taylor believed that monetary policy is most effective when it follows an inflexible, rule-based framework, as this induces predictability into the central bank's decisions based on economic conditions. According to this view, much of the success of the Great Moderation can be attributed to the Fed's following the Taylor rule. By contrast, he argued, large deviations of the federal funds rate from the Taylor rule in the early 2000s were responsible for the subsequent poor macroeconomic performance. In thinking about monetary policy over the next decade, he advocated a return to rule-based monetary policy.

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A central element of monetary policy making and, in particular, of the frameworks for rule-based monetary policy, is the behavior of inflation. In their symposium paper, James Stock and Mark Watson described some of the challenges of modeling and forecasting inflation in the United States. Although inflation tends to be incredibly difficult to predict, they were able to exploit a robust stylized fact: Inflation declines during or shortly after recessions. By combining a measure of economic slack tied to "recessionary gaps" with a timevarying trend component, the authors were able to capture the stylized behavior of U.S. inflation around recessions and generate improved inflation forecasts using retrospective U.S. data.

With this model, the authors projected that the large increase in the unemployment rate associated with the recent recession would cause U.S. inflation to drift further down from its already low levels. The authors emphasized, however, that the forecasting exercise missed in its prediction of continued declines in inflation in the aftermath of the 2001 recession. In that episode, the model failed to capture the acceleration in inflation in 2004.

In discussing the paper, Frank Smets showed that the phenomenon described by the authors is also present in the euro area. While the authors focused on disinflationary periods around recessions, he wondered whether the results were symmetric so that large booms in economic activity would be associated with accelerating inflation. In addition, he noted that low-inflation environments may be inherently different from high-inflation environments because of nonlinearities around zero, in particular through downward nominal wage rigidity but also through labor market institutions and other margins of adjustment. Smets concluded by stressing the importance of stable long-term inflation expectations due to their role in stabilizing both inflation and real activity.

One area of great uncertainty that awaits many developed countries is the long-term funding shortfall for entitlement programs. In addition, and more immediately, many government budgets have deteriorated due to the recession. In his paper, Eric Leeper addressed the interplay between monetary policy and fiscal policy in this era of fiscal stress.

In Leeper's view, researchers and central bankers have made great strides in applying scientific rigor to decisions on monetary policy. This same rigor is lacking in fiscal policy decisions. In normal times, this "fiscal alchemy" can be largely ignored by monetary policy makers, simply by assuming that fiscal policy will resemble its past behavior. One drawback to this alchemy is that it hampers the ability of fiscal policy makers to answer questions on topics such as the size of fiscal multipliers. But more importantly, in times of fiscal stress—for instance, due to active fiscal stabilization policy or entitlement paths that produce debt-to-GDP ratios that are unsustainable—fiscal policy decisions can overwhelm monetary policy. In these situations, it becomes incumbent to ensure that expectations of fiscal debt remain anchored in predictable ways.

In his discussion, Francesco Giavazzi focused on anchoring fiscal expectations through a credible plan to stabilize the debt. Such a plan, he emphasized, need not reduce debt immediately. Reforms with as long as 15- to 20-year horizons could be effective. Yet he argued that having a plan was a necessary condition. Lacking one, expansionary fiscal policies could be counterproductive if they raise uncertainty among consumers and firms, thereby depressing private aggregate demand.

The final session of the symposium focused on "Reconsidering the International Monetary System." The three-member panel brought together a diverse set of viewpoints: John Lipsky provided the perspective of the IMF, Maurice Obstfeld provided the perspective of an academic international macroeconomist, and Governor Umayya Toukan represented the Central Bank of Jordan.

Lipsky began the panel discussion by noting that the financial crisis reflected, at least in part, the weakness of the existing international monetary system. Enhancing the resiliency and effectiveness of the system will be requisite to avoiding future crises.

Lipsky identified three problems with the current international monetary system. Each problem relates to economic and financial imbalances that international organizations such as the IMF are working to resolve. First is the lack of structural or institutional Introduction xxix

procedures to deal with the buildup of imbalances, which are often a precursor of financial crises. Second is the rapid increase in international reserves, which reflect the imbalances and the need for countries, especially those with developing and emerging economies, to self-insure against international disruptions. And third are the large international capital flows that finance the imbalances.

Obstfeld argued that a better understanding of gross asset positions and gross financial flows is essential for understanding key issues facing the international monetary system. The increase in gross asset positions has been dramatic: U.S. gross assets (external assets plus liabilities) to GDP were nine times larger in 2007 than in 1970. Yet, economists have made little progress in studying this phenomenon. Moreover, swings in asset prices (exchange rates, interest rates and stock prices) dwarf changes in financial flows. Thus, questions of national solvency may be only loosely connected to the current account.

Obstfeld also discussed two other noteworthy aspects of the international monetary system during the crisis. The first concerns the dollar's status as a "safe haven." During normal times, the highly liquid U.S. financial markets encourage foreign investment, large gross financial flows, and low interest rates. During a crisis, however, the "cost" of this safe haven status is dollar appreciation, caused by foreign investors demanding dollars to repay short-term debt. The second concerns the notion of a lender of last resort in the global economy. In some situations, national central banks may be unable to act as a lender of last resort if they cannot satisfy the foreign currency needs of their financial institutions. While the crisis exposed high demands for dollar liquidity, the trend toward nondollar transactions in international finance implies that, at some point, tensions in nondollar funding markets may spill over to U.S. financial institutions and the Federal Reserve in a similar manner.

Toukan's remarks focused on three conflicts that affect the international monetary system. The first conflict involves national versus international considerations. As an example, he cited policies adopted by the main reserve currency, which may have large impacts on all countries, not just those pegged to the reserve currency. He suggested that the IMF can play an important role in reconciling diverse national interests.

The second conflict arises from political versus economic considerations. While global economic adjustments may be clear, the necessary political decisions may be much harder to achieve. Bringing about consistency between economic and political considerations will be a challenge for the international monetary system.

Finally, the third conflict Toukan described concerned market versus nonmarket approaches to policymaking. He argued that a market approach with a strong role for independent central banks can play an important role in dealing with the challenges facing the international monetary system. Even in times of crisis, signs of market dysfunction provide useful information to policymakers on the need for policy actions.

The luncheon address by European Central Bank President Jean-Claude Trichet touched on a number of the issues raised elsewhere in the symposium. In terms of the main macroeconomic challenge in the decade ahead, Trichet offered a concise response: Ensure that the next 10 years do not turn into another "lost decade," such as the one experienced by Japan. Meeting such a challenge will require handling large debt overhangs in the private sector, caused by the run-up in debt and leverage prior to the crisis, and in the public sector, partly resulting from the crisis and recession.

Trichet emphasized that central banks also face important challenges in the coming years. They must devise strategies to deal with growing uncertainty, to prevent crises and to unwind nonstandard monetary policies. At the same time, ensuring central bank independence—what he referred to as "apolitical economy"—will be crucial in implementing necessary policies and communicating with the public. In this context, central banks can continue to strive for their medium-run goal of maintaining price stability, while at the same time adapting to an ever-changing economy.