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Monetary Policy, Transparency, and Credibility: Conference Summary

This Economic Letter summarizes the papers presented at a conference on “Monetary Policy, Transparency, and Credibility” held at the Federal Reserve Bank of San Francisco on March 23 and 24, 2007. The papers are listed at the end and are available at <http://www.frbsf.org/economics/conferences/0703/index.html>

At this year’s conference, academic researchers and policymakers gathered to discuss six research papers that focused on transparency and credibility and how central banks can achieve their goals by effectively communicating their views on monetary policy as well as their views on the economy, which inherently involve some degree of uncertainty.

Three of the papers focus on the benefits and limits of transparency, identifying circumstances where transparency may be helpful and those where it may be harmful. Another paper studies central bank communication in an environment where private agents have incomplete knowledge of the economy. A fifth paper analyzes policymaking in an economy whose parameters are uncertain. A final paper examines the role of the banking sector in the conduct of monetary policy.

The limits of transparency

It is increasingly common for central banks to be transparent about their long-run inflation goals. In addition to democratic accountability, underlying this transparency is the hope that by publicly announcing a target for inflation the central bank will establish more quickly a reputation for price stability and that this reputation will provide a firmer anchor for inflation expectations. By being more open about its goals, procedures, and forecasts, the central bank hopes to convince households and firms that it is committed to price stability, making inflation stabilization less costly. However, even central banks admired for their transparency are not necessarily all that transparent, invariably withholding key information about their policy objectives and their assessment of the economy and its future prospects.

Although transparency is generally thought to be a good thing, Cukierman examines the limits of monetary policy transparency, focusing on two main dimensions: feasibility and desirability. With respect to feasibility, Cukierman argues that uncertainty about the economy, about the effects monetary policy has on the economy, and about the measurement of key variables like potential output, the output gap, and the natural rate of unemployment make it extremely difficult for even well-intentioned central banks to be fully transparent. In Cukierman’s words, “the ‘science of monetary policy’ is not yet in a stage at which it can replace the ‘art of monetary policy’” (p. 32). With respect to desirability, Cukierman argues that a compelling case for secrecy can be made when the central bank has private information about threats to financial stability, such as about the health of banks. There, too much disclosure may lead to contagion, jeopardizing the wider banking system.

Monetary policy and its informative value

It is sometimes argued that households and firms may place too much weight on the central bank’s assessment of the economy, which can be problematic when the central bank’s information about the economy is imprecise. If its views about the economy are overly influential, then it may be optimal for a central bank to not reveal its views, to not be transparent. However, because central banks base their policy decisions on their assessment of the economy, policy interventions intended to stabilize the economy cannot help but convey information about the economy, even if the interventions are not accompanied by formal policy statements. Of course, it is generally not possible for private agents to infer unambiguously the central bank’s information about the economy simply by observing the policy interest rate, but the fact remains that the very act of conducting stabilization policy inevitably reveals information.

Recognizing that the policy interest rate has a stabilization role and an information role, Baeriswyl

and Cornand analyze jointly the optimal monetary policy and the optimal level of transparency. In their framework, the central bank conducts monetary policy to stabilize prices and output, but an opaque central bank does not divulge its information about the economy while a fully transparent central bank does. Employing a small-scale model in which fluctuations are caused by demand and supply shocks, Baeriswyl and Cornand show that greater transparency is desirable when supply shocks are not too volatile, when the central bank is more focused on stabilizing prices than output, and when firms already have relatively precise information about the economy.

Three great American disinflations

Although there is little doubt that episodes of deflation or disinflation can be costly for the real economy, there is less agreement about the factors that contribute to the high real cost or about why the real cost varies across episodes. Naturally, disagreement about the factors that influence the real cost of deflation (or disinflation) stimulates debate about how inflation might best be lowered. For example, during the 1970s and 1980s some argued that inflation should be lowered gradually while others argued for an aggressive monetary tightening intended to lower inflation sharply.

To uncover the factors that govern the costs associated with deflation or disinflation, Bordo, Erceg, Levin, and Michaels analyze three episodes of deliberate monetary contraction: the 1870s post-Civil War deflation; the 1920–1921 post-WWI deflation; and the early 1980s disinflation under Federal Reserve Chairman Volcker. In the case of the 1870s deflation, the authors argue that the highly transparent policy objective coupled with a credible commitment allowed a decline in the price level to occur alongside robust real output growth. In contrast, the abrupt shift to a contractionary policy stance in 1920 produced a rapid decline in prices, but at the cost of a sharp fall in output. Here, the authors argue, deflation came at a higher cost because the Federal Reserve departed sharply from the expansionary policy that it had pursued previously. For the Volcker disinflation, the authors argue that a lack of policy credibility, brought about by the rise in inflation that occurred during the late 1960s and 1970s, contributed importantly to the large real cost associated with inflation's decline.

Central bank communication

Since the early 1990s, central banks have increasingly adopted inflation targeting as a framework

for conducting monetary policy. A cornerstone of inflation targeting is a publicly announced numerical value, or range, for some measure of inflation. Some, but not all, inflation targeting central banks also make public the forecasts, or projections, upon which their policy decisions are based. The underlying rationale is that central banks can more firmly anchor inflation expectations if they provide private agents with guidance about monetary policy, and by anchoring inflation expectations firmly, the central bank can help prevent undesired fluctuations in the economy and mitigate the possibility of economic instability. But is announcing an inflation target sufficient to anchor inflation expectations, or does the central bank also need to articulate, in some form or other, how the inflation target is to be achieved? Does the central bank need to reveal any trade-offs it perceives in meeting the inflation objective against other policy objectives?

Eusepi and Preston study these issues using a model in which households and firms have incomplete knowledge of the economy and must learn about monetary policy before they can make decisions. In their framework, central bank communication involves revealing to private agents information that they can use to help learn and forecast the economy. They begin by showing that self-fulfilling expectations often arise if the central bank does not communicate with private agents. Alternatively, by communicating the entire policy decision process—which in this model is the coefficients and variables that enter the policy rule—the optimal policy is successfully implemented and instability is mitigated. For intermediate cases, the authors find that communicating to private agents the inflation target and the variables that enter the central bank's policy rule garners the same benefits as communicating the entire policy process. However, in a key result, the authors demonstrate that communicating the inflation target only is insufficient to anchor inflation expectations.

Monetary policy and uncertainty

An issue that central banks are increasingly grappling with is how to best formulate policy when there is uncertainty about the economy. One reason that uncertainty about the economy, especially uncertainty about the parameters that govern the policy transmission mechanism, is troublesome for central banks is that it raises doubts about the timing and magnitude with which policy actions affect the economy. Another subtle, and less widely recognized, reason that parameter uncertainty is troublesome is that it can render uncertain the

very goals and objectives to which monetary policy should be directed. Taking the position that monetary policy should attempt to maximize the welfare of a stand-in representative household, Edge, Laubach, and Williams argue that uncertainty about the parameters that govern the household's preferences and the economy's production technology will affect the economy's dynamic behavior, key variables like the output gap and natural rate of interest, and the policy objective function.

To understand the impact of parameter uncertainty on policy design, Edge, Laubach, and Williams study a simulated economy in which parameter uncertainty has the three effects described above. They show that parameter uncertainty leads to the economy's potential output and natural rate of interest being imprecisely estimated. Imprecision about the natural rate of interest makes it difficult for the central bank to determine the appropriate level of interest rates, while imprecision about potential output makes it harder for the central bank to assess whether the economy's productive resources are under- or overutilized. In terms of optimal policymaking, they show that parameter uncertainty means that policymakers should rely less on estimates of the output gap and more on variables like prices and wages that can be measured with greater precision.

Banking and interest rates in monetary policy analysis

Modern studies examining the design and conduct of monetary policy generally employ models, or frameworks, in which a significant role for monetary aggregates and financial intermediation is absent. Instead, monetary policy is invariably analyzed in terms of how to set a short-term nominal interest rate, with the central bank then supplying the quantity of money required to satisfy demand. Moreover, the banking sector is invariably taken to be perfectly competitive or simply omitted, such that the economy effectively contains a single short-term nominal interest rate. Although this approach to modeling monetary policy is widely accepted among central banks and academia, it may prove misleading if factors such as collateral, financial intermediation, or a need by banks to monitor loans give rise to an array of interest rates with differing effects on the economy.

To assess whether such factors may be important, Goodfriend and McCallum develop a model suitable for policy analysis that contains a banking sector in addition to the usual goods-producing sector. In the banking sector, loan production requires both collateral (with capital less useful than bonds as collateral) and loan-monitoring inputs, giving rise to an endogenous external finance premium. Accordingly, a monetary policy that stimulates economic activity may either raise or lower the external finance premium, depending on model parameters. By raising the value of collateral, the stimulus may lower the external finance premium, generating a "banking accelerator" or, by raising the demand for bank deposits, the stimulus may raise the external finance premium, generating a "banking attenuator." With the rates of return on government bonds, deposits, collateralized loans, and uncollateralized loans varying from each other and from the return on physical capital, the key result in the paper is to show that in response to a shock to goods-sector productivity a monetary policy that ignores the distinction between these various rates of return could go terribly awry.

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Conference papers

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- Bordo, Michael, Christopher Erceg, Andrew Levin, and Ryan Michaels. 2007. "Three Great American Inflations." National Bureau of Economic Research Working Paper #12982.
- Cukierman, Alex. 2007. "The Limits of Transparency." Manuscript.
- Edge, Rochelle, Thomas Laubach, and John Williams. 2007. "Welfare-Maximizing Monetary Policy under Parameter Uncertainty." Federal Reserve Bank of San Francisco, manuscript.
- Eusepi, Stefano, and Bruce Preston. 2007. "Central Bank Communication and Expectations Stabilization." Federal Reserve Bank of New York Staff Report #199.
- Goodfriend, Marvin, and Bennett McCallum. 2007. "Banking and Interest Rates in Monetary Policy Analysis: A Quantitative Exploration." Manuscript.

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