Communicating the Fed's Policy Stance

HM Treasury/GES Conference Is There a New Consensus in Macroeconomics?

London, England

November 30, 2005

y short answer to the question posed in the conference title is "yes." The fundamental issues that created an enormous gulf between macroeconomists in the 1960s have been resolved. Of course, there are still things to discuss, because agreement on the most important fundamentals does not eliminate controversy about many important details.

In the U.S context, the most important single issue was that in 1965, say, economists conducted modeling and policy exercises in a controltheoretic framework. A changed view of expectations led to appreciation of the importance of the distinction between real and nominal interest rates and the view that in the long run the Phillips curve was vertical. Somewhat later but certainly by 1985, say, almost everyone believed that expectations of private agents about what policymakers would do had to be incorporated in models and policy analyses.

In 1965, expectations were almost uniformly modeled in a backward-looking way. As the rational expectations analysis took hold, the argument concerned the extent of rationality in formation of expectations. Were expectations rational in the sense of Muth (1961) or were they based on backward-looking and/or rules-of-thumb calculations? I would not claim that there is a consensus today on how to model expectations, but would claim that all serious macroeconomists believe that expectations cannot be adequately

viewed as totally lacking in rational elements.¹ That is, markets do reflect efforts of private agents to look ahead, however imperfectly they may be able to do so.² And "looking ahead" certainly includes forming expectations as to what policymakers will do.

My plan is to discuss some of the evolution that has led to policy concern over central bank communication. My perspective is primarily from my own Federal Reserve experience. I know that the topic has been extensively debated within and without other central banks, but I do not have enough systematic knowledge of these debates to comment on issues outside the U.S. context. I'll discuss two aspects of central bank communication. One aspect is "body-language" communication through increased regularity of policy actions and the second is written and oral communication through policy statements, speeches and testimony.

Before proceeding, I want to emphasize that the views I express here are mine and do not necessarily reflect official positions of the Federal Reserve System. I thank my colleagues at the Federal Reserve Bank of St. Louis for their comments, but I retain full responsibility for errors.

CENTRAL BANK CREDIBILITY

There is a large literature on central bank credibility. The literature arose quite naturally in the context of the task of bringing inflation down

 $^{^{\}rm 1}$ An early important paper in this literature was Sargent and Wallace (1975).

² If information is limited to the properties of a time series, then the rational expectation is the appropriate extrapolation of the past history of the variable. The distinction is between a rational expectation, in the sense of the best guess given all available information, and a customary, or habit-driven, extrapolation of history.

MONETARY POLICY AND INFLATION

from the excessive rates prevailing in most countries in the 1970s. Central banks had always been concerned about credibility, but the importance of that concern was elevated by the rational expectations revolution in macroeconomics in the 1970s and the unacceptably high rate of inflation.³

Analysis of credibility issues involved the nature of appointments to governing boards of central banks and the incentives central banks face. As for incentives, there has long been recognition of the importance of political independence, lest monetary policy be used to bolster the electoral prospects of the party in power. The Federal Reserve Act in 1913 was designed to create considerable political independence. The argument on the other side, of course, was that in a democracy policy decisions should be made by elected officials or officials directly accountable to elected officials; that view determined the institutional design in many countries, including the United Kingdom.

The issue was eventually decided in favor of political independence largely, I think, on the basis of experience. The relatively greater success of more independent central banks—Deutsche Bundesbank, Swiss National Bank and Federal Reserve System—convinced many observers that substantial political independence was the better institutional design for democratic countries.

In any event, the growing conviction of macroeconomists that the rational expectations model needed to be taken seriously provided a powerful analytical base for discussing central bank credibility. Also, economists recognized that the cost of bringing inflation down might depend importantly on the extent of credibility. In models in which inflation expectations were merely extrapolations from past inflation, reducing inflation would require a predictable period of pain. To bring actual inflation down, the central bank had to create a recession. The recession

would reduce inflation which in turn would gradually reduce inflation expectations, setting the base for renewed economic growth at a low rate of inflation.

Credibility and forward-looking expectations promised to reduce the pain. Nevertheless, the United States and the United Kingdom both suffered significant recessions in the early 1980s. I remember a comment I made in 1981 to one of my more hard-line rational expectations colleagues: Given the Federal Reserve's behavior over the previous 15 years, it was not rational to assign a high probability to the Fed's promises, even under the new Chairman, Paul Volcker, to bring inflation down. In the event, it was the Fed's willingness, supported by President Reagan despite a severe recession, to sustain a policy to reduce inflation that created credibility. The Fed's policy more than anything it said built credibility.

Central bank credibility is an aspect of the broader issue of trust. Credibility and trust, once lost, can be extremely expensive to regain. I believe that most policymakers recognize this fact, and the recognition has much to do with efforts to enhance transparency to build trust.

POLICY RULES

There is a large literature on rules versus discretion in monetary policy, dating from the seminal paper by Henry Simons (1936). The rational expectations revolution reinforced the case for rules. In the models spawned by this revolution, monetary policy was generally specified by a money growth rule. This approach worked well in the models, but left a void for monetary policymakers because central banks did not implement policy through money growth targets. There is controversy over the extent of money growth targeting by the Bundesbank, but for the United

³ Credibility was a critically important issue for the Federal Reserve in 1979 as it decided to change policy dramatically to bring down inflation. See Federal Reserve Bank of St. Louis (2005).

⁴ The FOMC began setting a target for borrowed reserves in 1982. My view is that this target was a funds rate target at one remove, because bank borrowing at the discount window depends on money market interest rates. Also, pursuit of the borrowing target was tempered by the behavior of the funds rate. Put another way, open market operations were designed in part to prevent the federal funds rate from departing too widely from expectation. For all practical purposes, I believe, the FOMC was operating on a federal funds target after August 1982.

States the practice was clear. Except for the period from October 1979 to September 1982, the Federal Reserve did not pursue a monetary aggregates policy but instead implemented policy through adjustments in its target for the federal funds rate. Of course, observed money growth did affect the fed funds rate targets from time to time, but so also did many other variables.

For a time, therefore, macroeconomists were in the uneasy position of constructing models closed by a money growth rule when they knew that the Fed did not pursue policy this way. In 1993 John Taylor showed that it is possible to model Fed behavior by using a simple equation that makes the target fed funds rate a function of the real interest rate, the gap between the actual and desired inflation rate, and the gap between actual and potential real GDP.

The Taylor rule fit experience pretty well, and continued to do so after 1993. Some version of the rule became the standard way of closing macroeconomic models. Nevertheless, because the Federal Reserve has not followed the Taylor rule closely, or any variant of it or other rule, there remained and remains today a gap between what the Federal Reserve actually does and the notion of a policy rule embedded in the abstract models.

Federal Reserve policy is much more rule-like than commonly appreciated. I have discussed this issue at some length in two recent speeches. In the first, I argued in some detail that Fed policy has become highly predictable, as measured by the accuracy of predictions in the federal funds futures market. In the second, I argued that predictability is evidence of rule-like policy. I detailed some of the characteristics of policy behavior that are indeed highly predictable. One example is the Fed's analysis of the significance of statistical data based on detailed information that helps to distinguish transitory disturbances, to which the Fed ought not and does not respond, from

genuinely new information to which the Fed should and does respond.⁶

INFLATION TARGETING

The Taylor rule assumes a specified inflation target. Ambiguity over the target has been reduced by adoption of a formal inflation target by many central banks. A substantial literature on inflation targeting now exists. 7 The literature covers not only the issue of what target to set and the advantages of having a target but also policy under an inflation target. The consensus is that the formal inflation target helps to inform the public about the central bank's objective but that policy should not be a slave to the target. Particularly in the United States where the Federal Reserve Act contains a dual mandate specifying goals of maximum employment as well as price stability, policymakers cannot pursue the price stability goal to the neglect of everything else.

In the United States, and I believe elsewhere as well, opinion is pretty settled that employment and price stability goals are not competitive but fundamentally complementary. Success in maintaining low and stable inflation contributes to economic stability, maximizes economic growth and creates conditions that permit the labor market to clear at the highest possible level of employment. Of course, that level is determined importantly by nonmonetary conditions that fall outside the central bank's direct area of responsibility. Also important, however, is that low inflation and high credibility permit the central bank to respond constructively to real and financial disturbances without raising inflation fears. With high credibility, the central bank can reduce the variance of the real economy.

Although the Federal Reserve has not announced a numerical inflation target, Ben Bernanke, the nominee to become Fed chairman

⁵ Poole (2005a).

⁶ Poole (2005b).

 $^{^{7}}$ Two convenient source are: Bernanke and Woodford (2005) and Federal Reserve Bank of St. Louis (2004).

MONETARY POLICY AND INFLATION

in February, is on record favoring such a target. Although I am also on record favoring a formal numerical target, I believe the issue has not been a large one in the United States. Many observers believe that the Fed has been pursuing an inflation target range of 1 to 2 percent annual rate of increase of the core PCE price index. If the Fed does adopt a formal target in the future, I doubt very much that statistical tests for a regime break would be able to find one in an economic series such as an inflation index, employment or real GDP.

COMMUNICATION THROUGH POLICY STATEMENTS, SPEECHES, ETC.⁸

A rational expectations equilibrium requires that the market have information about the Fed's policy rule. The more accurate is that information, the more efficient will be economic outcomes. The market learns about the rule above all from what the Fed does. Actual monetary policy has been highly successful, and that is what has built credibility. Regularities in pursuing policy have made policy more predictable, in the sense that conditional on new information the market has a good idea of the Fed's response, if any, to the new information.

Although predictable policy—the body language—is the most important feature of the current situation, improved policy communication has also played a significant role. Perhaps the most important step the FOMC has taken to improve policy communications was the release of the policy decision immediately following each FOMC meeting, starting in February 1994. Other steps, such as more timely release of minutes of FOMC meetings, have been helpful.⁹

I believe that there is a consensus that better communication furthers the goal of informing the markets more completely about the course of monetary policy, enabling market participants to make more efficient decisions. The issue is not with the principle of better communication, but *how* to be more effective. I have discussed some of the difficulties in a speech I entitled "Fed Transparency: How, Not Whether" (Poole, 2003).

As every central banker knows and has most likely experienced, communication is difficult because it is so easy to be misunderstood. Miscommunication adds uncertainty and creates market volatility. In a formal, rational expectations model such uncertainty can be modeled by adding a random term to the market's understanding of the policy rule. I know of no model in which adding stochastic disturbances to the policy rule improves outcomes for inflation, employment and growth.

Increased attention to communication has a benefit that is frequently overlooked—an improvement in the clarity of internal deliberations. In a committee context, explicit understanding of policy goals and agreement on policy direction must precede public communication. We need to know what we want to say before we try to say it. I had a vivid lesson in this regard when I first came to my current position. In 1998, the FOMC was agreeing on a policy "tilt" or "bias" and I discovered that different members of the Committee had different interpretations of what the bias meant.

The most important communications issue facing the FOMC currently is whether and how to continue to provide forward guidance on policy decisions. Starting in mid-2003, the policy statement at the conclusion of the FOMC meeting stated that "...policy accommodation can be maintained for a considerable period." Later, the Committee said that it could be "patient in removing its policy accommodation." Still later, the Committee said that it would remove accommodation at a "measured pace."

Even when the federal funds rate was at 1 percent, unpredictable events could have occurred

 $^{^{8}}$ Woodford (2005) provides an excellent recent discussion of communications issues.

⁹ For a full list of such steps, see Poole (2005a).

that would have led the Committee to depart from its forward guidance. The setting of policy must be conditional on information at hand, and when information changes sufficiently the policy setting must also change. Historically, the Federal Reserve has not provided forward guidance for fear that it would lock itself into a policy stance that might, under new information, no longer be appropriate. In principle, there is no reason why the Fed cannot explain the nature of the conditionality and convey the view that policy guidance depends on information available at the time guidance is offered.

Putting aside the unusual circumstances that took the federal funds rate to 1 percent, for me the issue is whether under normal and routine circumstances forward guidance will convey information or whether it will create additional uncertainty. If conditionality of policy is understood, then events that lead the FOMC to depart from previously stated forward guidance should not cause difficulty. The market will understand that guidance is not a promise that must be kept to retain credibility but instead a way of summarizing the Committee's view of the probable direction of policy. Then, when unexpected events move policy a different way, markets will come to the same conclusion about the policy significance of an unexpected event as does the FOMC.

SUMMARY

In the context of today's understanding of how the economy works—an understanding based on rational expectations models—policy communication is an essential aspect of monetary policy. Private agents make more efficient decisions when they understand monetary policy. Of course, the same argument holds for other policies, such as fiscal and regulatory ones. Clarity requires that policy have rule-like characteristics. Indeed, a research agenda improving the specificity of the monetary policy rule is highly desirable.

Federal Reserve policy practice and policy discussion has done much to improve the predictability of Fed policy decisions over the past decade or so. I believe that there is a consensus that improved predictability has improved the effectiveness of monetary policy. This consensus in turn is fundamentally a consequence of the consensus in the economics profession that the right way to think about the macro economy is in the context of a rational expectations macro model. Expectations may not be fully rational, but that is still the right starting point for analyzing the economy and monetary policy.

REFERENCES

Bernanke, Ben S. and Woodford, Michael, eds. "The Inflation-Targeting Debate," *NBER Studies in Business Cycles, 32*. Chicago and London: University of Chicago Press, 2005.

Federal Reserve Bank of St. Louis. *Inflation Targeting: Prospects and Problems.* Federal
Reserve Bank of St. Louis *Review,* July/August
2004. 86.

Federal Reserve Bank of St. Louis. Reflections on Monetary Policy 25 Years After October 1979. Federal Reserve Bank of St. Louis Review, March/ April 2005, 87(Part 2).

Muth, John F. "Rational Expectations and the Theory of Price Movements." *Econometrica*, July 1961, *29*, pp. 315-35.

Poole, William. "Fed Transparency: How, Not Whether." Federal Reserve Bank of St. Louis *Review*, November/December 2003, *85*, pp. 1-8.

Poole, William. "How Predictable Is Fed Policy?" Federal Reserve Bank of St. Louis *Review*, November/December 2005a, 87, pp. 659-68

Poole, William. "The Fed's Monetary Policy Rule." Cato Institute, Washington, DC, October 14, 2005b.

Sargent, Thomas J. and Wallace. Neil. "'Rational' Expectations, the Optimal Monetary Instrument, and the Optimal Money Supply Rule." *The Journal of Political Economy*, April 1975, 83, pp. 241-54.

MONETARY POLICY AND INFLATION

- Simons, Henry C. "Rules Versus Authorities in Monetary Policy." *Journal of Political Economy*, February 1936, 44, pp. 1-30.
- Taylor, John B. "Discretion versus Policy Rules in Practice." *Carnegie-Rochester Conference Series on Public Policy*, 1993, *39*, pp.195-214.
- Woodford, Michael. "Central Bank Communication and Policy Effectiveness." Presented at the Federal Reserve Bank of Kansas City symposium *The Greenspan Era: Lessons for the Future*, Jackson Hole, WY, August 25-27, 2005.