Communicating the Stance of Monetary Policy

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have spent most of my professional life studying monetary policy—trying to understand how policy actions affect the economy and how policy might be improved. Those were my concerns as an academic, and they remain my concerns as a policymaker.

Since I arrived at the Fed, however, I have come to appreciate another dimension of the policy problem—how to communicate the stance of policy to the markets and the general public. As an academic—along with almost all other academics, I believe—I took communication issues for granted. It seemed to me that, if the central bank pursued a well-formulated policy, then that policy would be easily understood by the markets.

The matter is not so simple. Try to explain to someone how to ride a bicycle. Indeed, almost anyone can learn to ride a bike by just doing it, but almost no one can learn that by reading a book. I won't push the bicycle analogy further, because I certainly don't want to claim that monetary policymakers shouldn't read books! But actual experience—just doing it, or watching up close those who are—is very valuable as well. Deepening understanding of communication issues is high on my agenda, but in this speech my aim is to review the communication channels that are important today. I'll begin with a brief discussion of why communication is so important for a successful monetary policy.

Then I will talk about several channels through which the Fed communicates monetary policy information to the public. One of these channels—the movement of people in and out of the Federal Reserve System—really goes both ways. Another broad channel is speeches and

congressional testimony. A third channel is the information the Federal Open Market Committee (FOMC)—the Fed's chief policy body—releases in revealing its decisions and deliberations. I will conclude with some suggestions for improving communication.

Before proceeding, I want to thank my colleague at the St. Louis Fed, Bill Gavin, for his extensive work on this speech. However, I retain full responsibility for errors. The views expressed are mine and do not necessarily reflect official positions of the Federal Reserve System.

WHY COMMUNICATION MATTERS

The Federal Reserve implements its monetary policy by setting an intended interest rate for federal funds. Federal funds are simply reserve balances owned by banks on deposit at Federal Reserve Banks. A bank requiring, or desiring, larger reserve balances may borrow them from another bank with surplus balances; the interest rate on these loans is called the "federal funds rate." The Open Market Desk at the Federal Reserve Bank of New York intervenes in the market to keep the federal funds rate near the intended rate determined by the FOMC at its most recent meeting. Most activity in the federal funds market is for one-day loans—"overnight" loans, in market parlance. So, Fed policy decisions determine the interest rate on overnight loans between banks. How can such decisions affect the interest rates important to businesses and households?

The mortgage interest rate, for example, is extremely important to homeowners, prospective homeowners, and homebuilders. Where does the

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rate on a 25-year, fixed-rate mortgage come from? Well, the Fed sets the one-day rate. The 1-week rate depends on market expectations about what the Fed will do with the one-day rate over the next seven days. The one-year rate depends on the market's expectations for the next 52 1-week rates. The 25-year mortgage rate depends on the market's expectations about the next 25 1-year rates. Where do all these expectations come from? They come from the market's understanding of what the Fed will do with the 1-day rate on the average over the next 25 years.

This basic picture, of course, is greatly complicated by changes in the real rate of return on riskless investments, risk and liquidity differentials, and other factors, but the basic point I want to emphasize is that longer-term interest rates depend critically on market expectations about what the Fed will do, or will have to do, in the future. And what the Fed does depends critically on what it has to do to achieve its goal of low and stable inflation. Although the Fed has substantial control over the federal funds rate in the short run, it has no lasting, or long-run, effect on the average level of rates if it is successful in achieving price stability. Over the long run, rates depend on the economic fundamentals of productivity growth, saving and so forth.

A couple of examples will make clear how important Fed communication is. Suppose, purely hypothetically, the Fed believes that economic conditions are softening and that lower interest rates are appropriate to the needs of the economy. Believing that only modest stimulus is required, the Fed lowers the federal funds rate by 1/4 of a percentage point. The market, however, might believe that the rate cut is the first of several cuts. Based on this belief, the market bids longer-term rates, including the mortgage rate, down by, say, ¹/₂ of a percentage point. The Fed finds that the stimulus to economic activity, including home building, is greater than intended, and in a few months the Fed reverses the original rate cut. Longer-term interest rates rise, and the market is thoroughly confused about the Fed's intentions.

Again, purely hypothetically, let's say the market interprets the Fed's initial rate cut as

temporary. In this case, longer-term rates move little, if at all. The Fed discovers that it has not provided enough stimulus to the economy, and in a few months cuts the federal funds rate again. Eventually, longer-term interest rates do fall, but valuable months have been lost. In both examples, market expectations of future Fed policy clearly play a central role in the transmission of monetary policy actions to the economy. It might seem a simple matter for the Fed to make clear what it intends to do, but the problem is not at all simple. The fact is that Fed adjustments of the federal funds rate in the future depend primarily on future events that cannot be forecast accurately. The Fed cannot explain to the market what the path for the federal funds rate will be because the Fed itself does not know.

This point is critical: The Fed itself does not know what the future path of the federal funds rate will be. What the Fed needs to communicate to the markets is how it will adjust the funds rate in response to events, or economic developments, that cannot be forecast. This communications task is enormously difficult because so many different considerations have to be folded into policy decisions. At any given time, there might be six important considerations that point toward policy easing and four that point toward policy tightening. The Fed must weigh competing considerations, take account of data inaccuracies and figure out whether markets have already responded to this flow of information, making a Fed response unnecessary.

In sum, Fed communication is critical to the effectiveness of monetary policy, but devilishly difficult, because policy itself is difficult and because so much depends on an unforecastable future. The Fed must communicate in an environment in which many key economic issues are unresolved, in which competing theories vie for attention and in which listeners' understanding ranges widely. So, how does the Fed communicate? Clearly, this whole area is fluid—we are constantly searching for ways to improve what we do. But I can provide a progress report.

INTERACTION BETWEEN PEOPLE INSIDE AND OUTSIDE THE FED

An important source of information about the Fed's inner workings comes from economists and policymakers who leave the Fed for the marketplace. These people are in great demand because they have special knowledge about how the Fed works. Many of the economists seen on business news shows or quoted in the financial press are former Fed economists. Federal Reserve governors and Reserve Bank presidents at times leave the Fed to go to executive positions in the financial services industry. There are shifts in the opposite direction as well. The Federal Reserve System benefits from the practical business experience of the bankers and business people who come to work as policymakers.

There is also an important interchange between the academic community and the Federal Reserve. Many of the governors and some presidents come from the academic community where they have developed careers doing research on monetary policy issues. But the information exchange goes far beyond just an exchange of personnel. Academic economists are regularly invited to present their ideas in seminars and Fedsponsored conferences. These national experts on monetary theory and monetary policy often spend time at the Board of Governors and Federal Reserve Banks as visiting scholars. Fed economists routinely contribute papers at conferences sponsored by academic and private research institutes.

Happily, this extensive interaction between academic and Fed economists has generated something of a consensus on monetary policy goals: While monetary policy may have a variety of objectives, the overriding long-run objective should be price stability. There is now substantial agreement that the Fed can achieve its long-run policy goal by using the federal funds rate as the day-to-day guide for open market operations. Interaction with Fed insiders helps academic scholars focus on practical issues and helps Fed economists understand and apply new theories developed by leading scholars.

SPEECHES AND CONGRESSIONAL TESTIMONY

The public and markets also learn about how the Fed works (and how the Fed thinks the world works) through the speeches of Reserve Bank presidents and governors of the Federal Reserve System—that is, those who attend FOMC meetings. These speeches give an indication of the range of views among FOMC members, their beliefs about the stage of the business cycle and their perceptions of the balance of risks between inflation and unemployment.

The most sought-after speaker is the Chairman of the Federal Reserve System. At present, the Chairman is Alan Greenspan, who took office in 1987. The Chairman is the one person within the Federal Reserve who does not preface his remarks with a disclaimer saying that his views "are not necessarily official views of the Federal Reserve System." He often uses congressional hearings to explain his view of the state of the economy and to review recent policy actions. Written testimony is carefully prepared, and members of Congress have extensive opportunity to pursue issues that concern them during the Q & A part of hearings.

Twice every year for some years, the Fed Chairman has reported the economic forecasts of members of the FOMC to Congress. These forecasts reveal the outlook of the members for growth in real GDP, nominal GDP, and the CPI measured from the fourth quarter of one year to the fourth quarter of the next. The forecast also includes the outlook for the average unemployment rate in the fourth quarter of the calendar year. The Chairman reports the full range of forecasts of FOMC members, from the lowest to the highest for each item. He also reports a narrower range called the "central tendency." To get this narrower range, the Board of Governors staff discards the extreme values. These forecasts are particularly interesting because monetary policymakers make them taking into account the policy adopted by the FOMC.

POLICY ACTIONS TAKEN AT FOMC MEETINGS

The focal point of every FOMC meeting is the final vote at the meeting's end on the intended federal funds rate. To reach this decision, committee members hear staff briefings, examine data that have arrived since the last meeting, and deliberate about the appropriate stance of monetary policy. Deliberations include discussion of the risks on the upside and downside. Before every FOMC meeting, Board staff and Reserve Bank staff brief the governors and Bank presidents on economic news since the last meeting. These briefings differ among Reserve Banks, depending on the traditions of each bank and the background of each bank president. However, every briefing includes a discussion of what the incoming news implies for the stance of monetary policy. The Board staff prepares and circulates regular briefings and, before each FOMC meeting, the Greenbook and the Bluebook. The Greenbook is the forecast of the economy over the next year or two, and the Bluebook is a summary of open market operations and developments in financial markets as well as a discussion of policy options.

FOMC meetings usually begin at 9:00 AM on a Tuesday morning with presentations to the Committee from the international and open market desks of the New York Fed. After a period of discussion, Board staff presents the key elements in the staff forecast contained in the Greenbook. Committee members then give their views about the state of the economy and whether they think the incoming news has shifted their opinions about the appropriate stance of monetary policy. After this first round of discussion, the staff members who prepared the Bluebook give a briefing on financial markets, the monetary aggregates, and policy options. There is a second go-around in which the Committee members state their views about the stance of monetary policy. The Committee often discusses at length exactly what to say publicly about the probable, or possible, future direction of policy. The aim is always to figure out the most constructive thing to say to make policy more effective and not to confuse,

even inadvertently, the markets. Then a vote is taken on the key decision variable—the level of the federal funds rate.

Important information that arrives between meetings may or may not lead to a change in the policy setting. In recent years, the Fed has rarely changed its policy between FOMC meetings. However, as information arrives day by day, securities' prices may adjust based on the market's view of the likelihood of FOMC action at its next meeting. If the markets understand the Fed's objectives and operations, then they should be well prepared for the policy action, if one occurs.

How can the markets successfully predict what the FOMC will do at its next meeting? Part of the story, of course, is that market participants carefully follow speeches by FOMC members, especially the Chairman's. But a major part of the story, and a part incompletely appreciated by most observers, is that the markets already have a deep understanding of monetary policy. Much of the time, the Fed and the markets are in close agreement about what policy actions will be required to keep the economy on a steady course in the face of new information.

In an earlier speech, I defined the idea of policy "perfection" as the situation in which there is no market reaction to a Fed policy action because the move was perfectly anticipated. Of course, this ideal is never achieved because information inside and outside the Fed is not perfectly synchronized and because people disagree about how the world works. Since February 1994, the FOMC has announced changes in the fed funds target on the same day that the decisions are made. Six or seven weeks later, a few days after the next scheduled meeting, the FOMC releases the minutes of the previous meeting. So there is an average lag of several weeks between the end of the meeting and the release of the minutes. These minutes disclose the topics discussed, summarize views about the state of the economy, and describe the reasons for any dissenting votes. The minutes are thorough and an important vehicle for keeping the markets and the general public well-informed about Fed thinking.

OTHER COMMUNICATION CHANNELS

The Fed has many other communications channels, which I want to mention just briefly. Each Fed District Bank has nine directors, and each branch has seven directors. The directors are drawn from the private sector and meet monthly at their Banks and branches. In the Eighth Federal Reserve District, for example, we have a total of 30 directors. They gain from their directors' meetings and other contacts with the Fed a body of knowledge that grows with their service, and they serve as ambassadors, spreading this knowledge throughout their communities.

Each Fed Bank has numerous advisory boards that meet from time to time with the Bank president and other employees. We have programs in which we tour our districts, talking with bankers, business and community leaders, academics, and others. Many of us have fairly frequent contacts with members of the press.

I have not tried to count all my contacts over the course of a year, but I know the total runs to the thousands. Admittedly, many of these contacts are with audiences at speeches, but a significant number are one-on-one or in small groups. These are contacts involving conversations about monetary policy issues, and I do the best I can to field all the questions that come my way with forthright and informative answers.

IMPROVING COMMUNICATIONS ABOUT THE STANCE OF MONETARY POLICY

I will conclude by discussing how we might improve our communication about the stance of policy. I think enhancing the credibility of policy is extremely important. It is important to clarify the long-term policy objective. But for the objective to be credible, it must be consistent with the economic policy objectives of the legislative and executive branches of government. There has been an amazing development in the last decade—the decline of inflation. A decade ago, hardly anyone

I know would have predicted the degree to which inflation rates around the world would have converged to such a low level. There is now considerable agreement that price stability should be the primary objective of monetary policy.

The Fed's legislative mandate includes multiple objectives: price stability, and full employment—or its equivalent, maximum sustainable economic growth. At one time, economists believed that there was a trade off between the trend rate of inflation and the unemployment rate. The experience of the 1970s taught us that higher inflation creates a much less stable economy. Rather than reducing the average level of unemployment, if anything, higher inflation leads to higher unemployment and less real growth.

Although consensus has been growing that price stability should be the primary goal of monetary policy, the objective remains rather vaguely defined. We inherited this vagueness from a time when there was no clear consensus about the policy objective and when people believed that the inflation-output trade off was an important consideration for both short- and medium-term policy considerations.

Recent research at the Federal Reserve Bank of St. Louis shows that if there is a short-run trade off between inflation and resource utilization, the adoption of an operational goal for longterm price stability likely would enhance the FOMC's ability to stabilize both output and inflation. What do I mean by an operational goal for long-term price stability? What I am talking about is a clarification of the desired inflation objective over a relatively long planning horizon. In 1999, we are seeing a rebound of inflation from the 1998 level. Will the Fed view the rebound as the beginning of a general acceleration or just an offset now that the temporary oil price decline last vear is over? That is, will the Fed view the 1999 rate of inflation as consistent with its long-run objective or above it? Without the long-term benchmark, the markets cannot be sure.

To see why clarifying the long-term objective is important for interpreting the stance of policy, consider the information problem the market has

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to solve when policy is "perfect" and the policy objective is explicit. Even in this case, because we still have much disagreement about how the world works, and cannot predict unforeseen events, markets will not know for sure how a given piece of news will affect the short-run path of inflation or whether it will trigger a change in the Fed's policy stance. Opinions about these short-run matters will differ. But markets will know the long-term price objective, and the objective will not change because of the news or the Fed's short-term reaction to it.

Now suppose that the price stability objective is vaguely stated. Market participants do not know whether price stability means 3 percent inflation in the CPI, as we experienced from 1991 to 1996; 2 percent inflation, as we have seen over the last three years; or 1 percent CPI inflation, as I would recommend. In the absence of a precise long-term objective, markets not only have to figure out how incoming information affects the short-run path for inflation and the probability of future FOMC policy actions, but also must decide how all of this will affect the long-term objective. When the long-term policy objective is imprecise, the long-term outcome may be the result of an accumulation of short-run decisions.

The lack of an operational objective might be thought of as the absence of a nominal anchor. This absence is one reason why markets and the general population pay so much attention to shortrun policy actions and seemingly routine speeches by Fed policymakers. I think one reason why the Fed received much less attention in the 1950s and 1960s is because the long-term policy objective was defined by the dollar's attachment to gold in the international monetary arrangements made after World War II. Because of these arrangements, the public's estimate of the long-term inflation rate was not much affected by speeches or shortrun policy actions. In retrospect, the public should have been paying more attention to those shortrun decisions because they were inconsistent with the survival of that international monetary system into the 1970s.

As an aside, I want to take a moment to say

why I would target a 1 percent growth trend in the CPI. A few years ago, the Boskin Commission reported on measurement bias in the CPI. The commission concluded that the CPI overstated growth in the true cost of living by 1.1 percentage points per year. Since then, the Bureau of Labor Statistics has modified its procedures in a way that corrects about half of that bias. Advances in technology have led to new goods and quality improvements that we cannot measure on a timely basis. Therefore, in my judgment at this time, given the findings of the Boskin Commission, other information and, of course, subject to further research, a 1 percent inflation rate as measured by the CPI is a reasonable approximation to zero inflation, properly measured. But the actual number for the inflation target is not nearly as important as is the decision to *choose* a particular number and create a benchmark for making policy transparent and accountable. We can change many things to improve our communication about the stance of policy. At the end of the day, however, I do not think any of this will make much difference if the FOMC, the Administration and the Congress do not find a way to make the long-term price objective more concrete.

Communication is obviously not a substitute for the FOMC itself being very clear in its internal deliberations. I have been following monetary policy for a long time and believe that the Fed has made enormous strides in defining and pursuing an effective policy. But there is more to be done, and improving communications is an area we're working on. I hope I've provided a good sense of just how important and how difficult these issues are. I, for one, would be delighted to hear from academic and market experts with ideas as to how we could communicate more effectively.

SUMMARY

Communication is central to a successful monetary policy. The Federal Reserve sets the overnight federal funds rate, leaving all longerterm interest rates to be determined by market forces, the most important of which is the market's expectations of future short-term interest rates. Those expectations, in turn, depend critically on views concerning future Federal Reserve policy. I believe that the market has great confidence that the Fed will keep inflation low and stable, but more can be done to further strengthen that confidence. At the top of my agenda in this regard is for the Fed to be more explicit about its inflation objective—an objective I believe should be zero inflation, properly measured.

Interest rates will not be perfectly stable if the Fed is successful in achieving its goal of low and stable inflation. That should be clear to everyone who has watched market interest rates fluctuate in recent years even though the trend rate of inflation has changed little. As various economic developments require interest rate adjustments to be consistent with low inflation, the Fed must process incoming information as best it can to decide when and by how much to adjust the federal funds rate. The better the market understands how and why the Fed reaches its decisions, the better it will be able to respond to new information in the same way the Fed responds to the same information. The result will be a smoother and more efficient transmission of monetary policy changes to the economy's product, labor, and capital markets.

Improving communication is important, then, because the Fed and the market both have to deal with inherently unforecastable events. On many issues, there are no settled, confirmed theories on which we can base our actions. Like economists and market experts everywhere, we naturally differ among ourselves on such issues. With important advances in economic science, however, the Fed has gone a long way to narrow the range of uncertainty. There is a lot to be done, but we're working on it.