

Federal Reserve Bank of Cleveland

FOMC Communications and the Predictability of Near-Term Policy Decisions

by John B. Carlson, Ben Craig, Patrick Higgins, and William R. Melick

I guess I should warn you, if I turn out to be particularly clear, you've probably misunderstood what I've said.

Alan Greenspan

Former Fed Chairman Alan Greenspan is well known for his sly sense of humor. The famous quote belies one of the greatest legacies of his tenure—improved central bank communication and transparency. Under his chairmanship, the Federal Open Market Committee (FOMC) gradually developed an apparatus to clearly and openly communicate its decisions and expectations. This communications apparatus is largely—though not solely—characterized by the FOMC practice of releasing a carefully crafted statement after each meeting—a practice that will likely continue to evolve.

Current Fed Chairman Ben Bernanke recently emphasized the importance of greater transparency and openness on the part of the FOMC. He notes that in the very short run, clear communication improves the near-term predictability of FOMC rate decisions, which in turn reduces risk and volatility in financial markets. Moreover, he argues that clear communication enhances the effectiveness of policy in the long run by helping to align the expectations of financial market participants more closely with the FOMC's own plans and projections.

The behavior of financial markets following the persistent series of rate hikes that began in 2004 illustrates Chairman Bernanke's point. This period has been characterized by low financial market volatility, especially in U.S. Treasury bond markets, and the remarkable ability of market participants to anticipate FOMC policy moves. This behavior

contrasts sharply with that which followed a similar policy tightening episode in 1994. With a communications apparatus still in its infancy, bond markets were roiled by an inability to fully anticipate 1994 FOMC policy moves.

Below, we first briefly describe the key milestones in the evolution of the FOMC post-meeting statement. To assess whether or not the changes in the statement have improved near-term predictability of FOMC interest rate decisions, we look at evidence based on prices taken from the futures contract on the overnight federal funds interest rate. Over the past decade, these prices show a dramatic increase in the ability of market participants to predict future FOMC decisions, especially over horizons of two and three months. However, it is not possible to conclude that all of the gains in predictability are a direct result of improved communications and, more importantly, improved communication does not rule out the possibility of large surprises in future FOMC rate changes.

■ The Evolving Apparatus

It is useful to recall how vaguely FOMC policy decisions were once communicated to the public. In the early 1990s, for example, no systematic post-meeting statements were issued. After FOMC meetings, the intended level, or target, of the federal funds rate that had been chosen by the voting members was conveyed in a directive to the Trading Desk at the New York Fed, much as it is done today. The Desk in turn conducted daily open market operations in a manner that would achieve the fed funds target on average over an intermeeting period. But market participants learned about intended fed funds rate changes only by inferring them from the actions of the Trading Desk.

In February 1994, the FOMC began a new era in transparency, gradually building a communications apparatus that conveys information about the Committee's decisions and expectations. Has the new apparatus improved the public's ability to predict FOMC interest rate decisions? New research based on the prices of fed funds futures shows that over the past decade, it has, especially over horizons of two to three months.

In the absence of a post-meeting communication, market participants looked for consistent patterns in the behavior of the Desk, from which they extracted FOMC intentions. To minimize losses associated with interest rate changes, large commercial and investment banks spent resources on “Fed watching”—a practice largely necessary because of limited communications by the FOMC.

February 1994 marks the first milestone in the development of better communication, when a post-meeting press release stated:

...the Federal Open Market Committee had decided to increase slightly the degree of pressure on reserve positions. The action was expected to be associated with a small increase in short-term money market interest rates.

The decision was taken to move toward a less accommodative stance in monetary policy to sustain and enhance the economic expansion.

FIGURE 1 ACTUAL FED FUNDS TARGET RATE VERSUS 90 DAY FUTURES MARKET PREDICTION

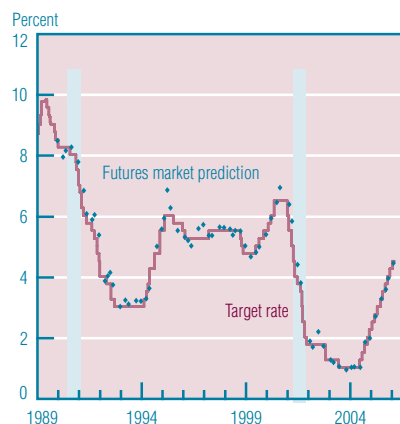


FIGURE 2 PREDICTION ERROR: 90 DAYS AHEAD OF FOMC MEETING

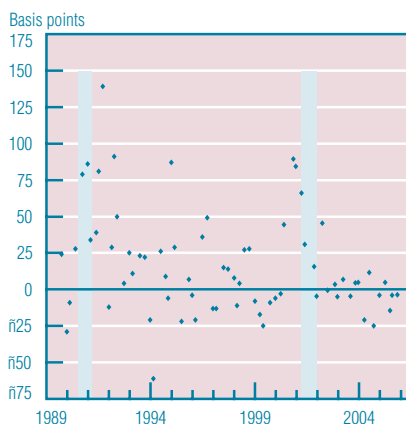
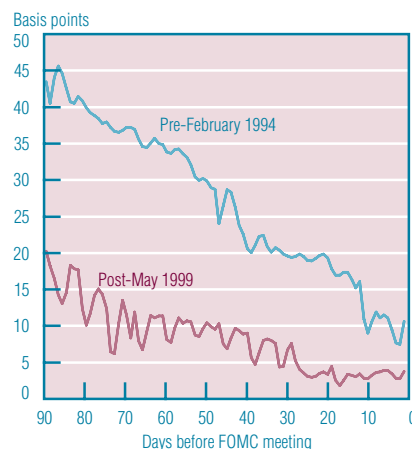


FIGURE 3 AVERAGE ABSOLUTE ERROR



NOTES: Because prices for fed funds futures contracts are based on averages of the daily fed funds rate for the month a contract expires, these prices will reflect two possibly different targets when an FOMC meeting falls within the month of the contract. These figures use data from only “clean” contracts—those which had no scheduled FOMC meeting within the contract month. Half the FOMC meetings are associated with such clean contracts. Shaded bars represent recessions.

SOURCES: Chicago Board of Trade and authors’ calculations.

Chairman Greenspan decided to announce this action immediately so as to avoid any misunderstanding of the Committee’s purposes, given the fact that this was the first firming of reserve market conditions by the Committee since early 1989.

The markets understood this to be a signal that the target fed funds rate had been increased 25 basis points.

The transcripts of the February meeting and those just prior to it reveal an extensive debate about the benefits and potential costs of policy transparency. The intended federal funds rate had been unchanged for more than a year, and some members of the FOMC were concerned that the first in a likely series of rate hikes would catch financial markets by surprise. The chairman’s statement was meant to limit that surprise, and as it did, it also broke new ground, becoming the first step in the development of the communications apparatus.

The FOMC continued its practice of issuing a post-meeting statement but only when the target rate was changed. Unchanged policy was revealed by the absence of a statement, and the actual target rate was never specified. Between 1995 and 1999 the FOMC moved toward more explicit and regular statements, as the benefits of

improved communications outweighed negligible or even nonexistent costs. After the July 1995 meeting, the FOMC statement explicitly reported the fed funds rate target.

It is important to stress that these initial statements conveyed no sense of the FOMC’s expectation for future policy. Between February 1994 and February 1995, financial markets were quite volatile. Bond prices fell dramatically, suggesting that bond market participants failed to anticipate the near-term course of policy. Noteworthy as the initial communications effort was, much was yet to be learned by doing. Cleveland Fed President Sandra Pianalto describes this time as a period during which the FOMC “learned to talk.”

In May 1999 another key milestone was reached when the Committee began to provide a more elaborate post-meeting statement that included both the rationale for the decision and some sense of the expected direction of the future path of policy. After that point, the FOMC issued a statement whether policy was changed or not. With these innovations, the basic elements of the statement, as it appears today, were largely in place. Most recently, forward-looking language has become more explicit, with the Committee using phrases such as “considerable period” and “measured pace.”

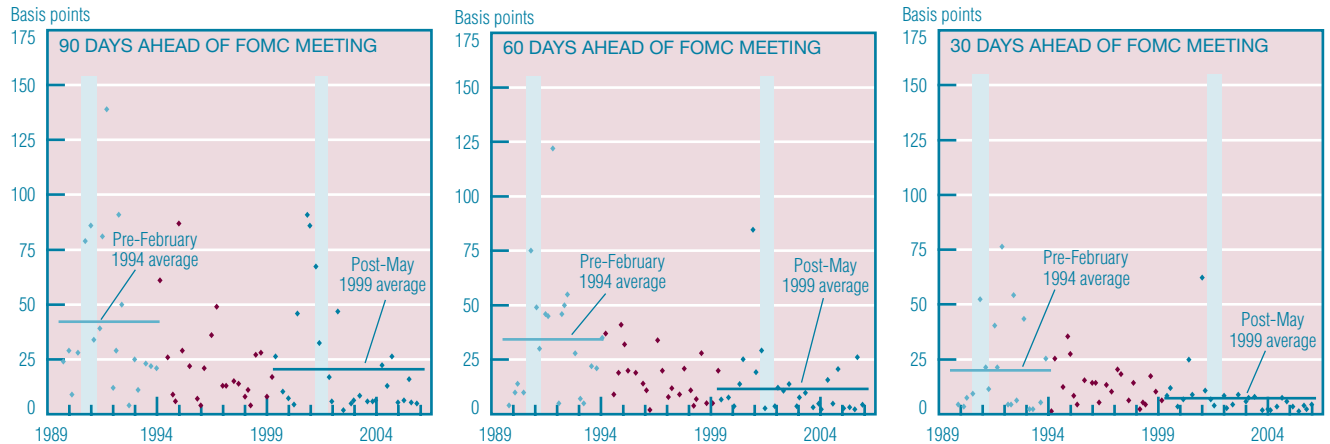
■ Near-Term Policy Predictability

Gauging the impact of the improvements in FOMC communications requires a measure of market participants’ expectations for future FOMC decisions. Fed funds futures, introduced in October 1988, quickly gained attention as a useful instrument for predicting future FOMC rate decisions. Figure 1 illustrates both the level of the fed funds target and its predicted value based on the futures price observed 90 days ahead of FOMC meetings from 1989 through early 2006. The prediction errors are presented in figure 2.

Casual inspection reveals that over the sample period, the futures-based forecast predicts the actual target rate reasonably well, although it is biased in the sense that it is often above the actual target rate. Over the entire sample, the implied yield tends to overpredict the actual target by 16 basis points on average. Of course, if a predictor is biased, and the bias is constant over time, one would want to adjust the prediction to account for the bias.

It is often found that futures are biased predictors. The bias may reflect a small risk or term premium, which tends to become larger the longer the forecast horizon is. Such a premium would result, for example, if buyers of the

FIGURE 4 ABSOLUTE PREDICTION ERROR OVER THREE HORIZONS



NOTE: Shaded bars represent recessions.
SOURCES: Chicago Board of Trade and authors' calculations.

futures contract had to offer a higher than expected interest rate in order to lock in a fixed rate at which they could borrow.

Other factors could also help explain overprediction in our sample period. A surge in productivity in the 1990s produced an unanticipated disinflation over most of the period depicted in figure 1. With gains in productivity that were not matched by gains in wages, inflation almost always came in below expectations, implying that market participants continually expected the FOMC to run a tighter monetary policy than was actually necessary. The bias could also reflect a lack of depth and liquidity in the fed funds futures market, especially in the earlier part of the sample, in which case, prices would not fully reflect all information.

Figure 3 illustrates the means of absolute prediction errors for each day before an FOMC meeting for two segments of the sample period. Although the evidence suggests that better communications have improved near-term policy predictability, we cannot, of course, rule out the possibility that the recent smaller prediction errors also reflect the end of the unanticipated deflation, possible market deepening over the period, or a decline in the risk premium. All of these possibilities would imply a reduction in absolute prediction error.

A more detailed analysis of prediction errors provides a stronger case for the effectiveness of the enhanced commu-

nications policy. Figure 4 shows the prediction errors over time for three alternative horizons.

It is especially instructive to compare errors for the year following February 1994 with those for the year following June 2004. Both are periods during which interest rates began to rise after being unchanged for more than a year. In the first instance, the communications apparatus was only just being developed. Thus, the FOMC had a limited means to offer any guidance about near-term policy intentions. The prediction errors were clearly higher in the earlier period at all horizons but especially within the intermeeting period (30 days ahead).

The evidence is uniformly supportive of the benefits of improved communication and is consistent with the analysis of Poole (2005), who examines changes in futures prices on the day of FOMC meetings, and the analysis of Lange, Sack, and Whitesell (2003), who examine changes before and after 1994. All of this work suggests that the construction of the FOMC's communication apparatus has enhanced the predictability of monetary policy.

■ An Important Caveat

It is clearly constructive to provide information that helps to align the expectations of market participants with those of the FOMC when the Committee can predict both its plans and outcomes with reasonable accuracy. But does improved communication lead to more effective policy when both the

plans of policymakers and the consequences of FOMC actions are not predictable? Has the experience since 2004 been only serendipity?

Figure 4 reveals that some policy actions after 1999 were not very predictable. Errors were high in the months in and around the two recessionary periods in the sample. The third panel of figure 4 highlights the observation that the January 2001 rate cuts came as a surprise, indicating an error of about 80 basis points around the end of December 2000. At that time, a rate cut of about 25 basis points seemed likely. It is important to stress here that although the both timing and magnitude of the rate cuts were not fully anticipated, the surprise appears justified after the fact. Note that the fed funds rate target was cut in two 50-basis-point increments in January 2001—at least three months ahead of the April decline in employment (and subsequent dating of March as the business cycle peak).

It is perhaps not surprising that the greatest prediction errors would occur prior to the onset of a recession. Such turning points are notoriously difficult to predict. Documenting the gains in predictability brought about by an improved communications policy is not meant to suggest that future policy will be perfectly anticipated. Clearly, shocks to the economy cannot be anticipated, meaning that policy responses to the shocks cannot be anticipated. However, aside from such turning points, it does appear that market

Return Service Requested:

Please send corrected mailing label to the above address.

Material may be reprinted if the source is credited. Please send copies of reprinted material to the editor.

participants have a much improved understanding of the intentions of the FOMC, as evidenced by the remarkably small prediction errors over the past two years.

■ **Recommended Readings**

Ben S. Bernanke. 2004. "Central Bank Talk and Monetary Policy," Remarks at Japan Society Corporate Luncheon, Board of Governors of the Federal Reserve System, October.

Refet Gurkaynak, Brian P. Sack, and Eric Swanson. 2006. "Market-Based Measures of Monetary Policy," Federal Reserve Bank of San Francisco, working paper 2006-04.

Joe Lange, Brian P. Sack, and William Whitesell. 2003. "Anticipations of Monetary Policy in Financial Markets." *Journal of Money, Credit, and Banking*, vol. 35, no. 6.

Donald L. Kohn, and Brian P. Sack. "Central Bank Talk: Does It Matter and Why?" Finance and Economics Discussion Series 2003-55. Washington: Board of Governors of the Federal Reserve System (August).

Ken Kuttner. 2001. "Monetary Policy Surprises and Interest Rates: Evidence from the Fed Funds Futures Market," *Journal of Monetary Economics*, vol. 47, no. 3, pp. 523–44.

Sandra Pianalto. 2005. "Expectations, Communications, and Monetary Policy," Federal Reserve Bank of Cleveland, *Economic Commentary* (April 15).

Monika Piazzesi, and Eric Swanson. 2004. "Futures Prices as Risk-Adjusted Forecasts of Monetary Policy." National Bureau of Economic Research working paper, no. 10547.

William Poole. 2005. "How Predictable Is Fed Policy?" Federal Reserve Bank of St. Louis, Review, vol.87, no. 6, pp. 659–68.

Vincent Reinhart, and Brian P. Sack. 2005. "Grading the Federal Open Market Committee's Communications," unpublished manuscript.

John B. Carlson is an economic advisor at the Federal Reserve Bank of Cleveland, Ben Craig is an economic advisor at the Bank, Patrick Higgins is an economic analyst at the Bank, and William R. Melick is an associate professor at Kenyon College and a research associate at the Bank.

The views expressed here are those of the authors and not necessarily those of the Federal Reserve Bank of Cleveland, the Board of Governors of the Federal Reserve System, or its staff.

Economic Commentary is published by the Research Department of the Federal Reserve Bank of Cleveland. To receive copies or to be placed on the mailing list, e-mail your request to 4d.subscriptions@clev.frb.org or fax it to 216-579-3050. Economic Commentary is also available at the Cleveland Fed's site on the World Wide Web: www.clevelandfed.org/research.

We invite comments, questions, and suggestions. E-mail us at editor@clev.frb.org.