The Impact of Changes in FOMC Disclosure Practices on the Transparency of Monetary Policy: Are Markets and the FOMC Better "Synched"?

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Since 1989, the Federal Open Market Committee (FOMC) has adopted many practices that improve the transparency of its policy actions. The following list includes some of those practices and their initiation dates:

- August 1989: Policy changes in the funds rate target are limited to multiples of 25 basis points.
- February 1994: A press statement describing policy actions is released at the conclusion of any FOMC meeting at which an action was undertaken.
- August 1997: Public acknowledgment is made that policy is formulated in terms of a target for the federal funds rate (the intended funds rate).
- August 1997: A quantitative intended funds rate is included in the Directive to the Federal Reserve Bank of New York.
- May 1999: A press statement is issued immediately following the conclusion of every FOMC meeting at which there are major shifts in the Committee's views about prospective developments. Such statements provide an indication of the policy "bias."
- January 2000: A "balance of risks" statement in the announcement replaces the previous policy "bias." After every meeting, the FOMC issues a statement that reports the settings of the target funds rate and the balance of risks.
- March 2002: The vote on the Directive and the names of dissenting members, if any, are included in the press statement.

The purpose of these changes, which have gone a long way toward lifting the traditional veil of secrecy over monetary policy, is to increase transparency of policy, improve accountability, and provide better information to market participants about the future direction of policy. This analysis examines how expectations of market participants about future policy actions have changed over the decade during which these changes were implemented.

Our measure of how market participants respond to "news" is the daily change in the yield on a one-month-ahead futures contract for federal funds. The yield on this contract can be interpreted as a measure of a consensus forecast in the market of the average effective federal funds rate over the next calendar month. For example, the change in the yield on the one-month-ahead federal funds futures contract from the close of business yesterday until the close of business today is a measure of the impact of today's news in the market. This measure of news is not unique, but we have found it highly correlated with measures that other researchers have proposed, as well as with the commentary on economic information that appears in the press.[1]

Small changes in our measure of news reflect merely ambient noise in financial markets, absent the revelation of any significant information. From our examination of the data, we have concluded that a change in our measure smaller than 5 basis points in absolute value is insignificant "noise."[2]

The behavior of our news measure on days that the FOMC changed the intended federal funds rate is shown in Figure 1. This figure is rather complex because we have attempted to present a large amount of data.

- The time line starts with October 1988, when trading began in the federal funds futures market, and continues through the December 2001 FOMC meeting when the intended federal funds rate was lowered to 1.75 percent.
- The data shown are the daily changes (close of business to close of business) in the yield

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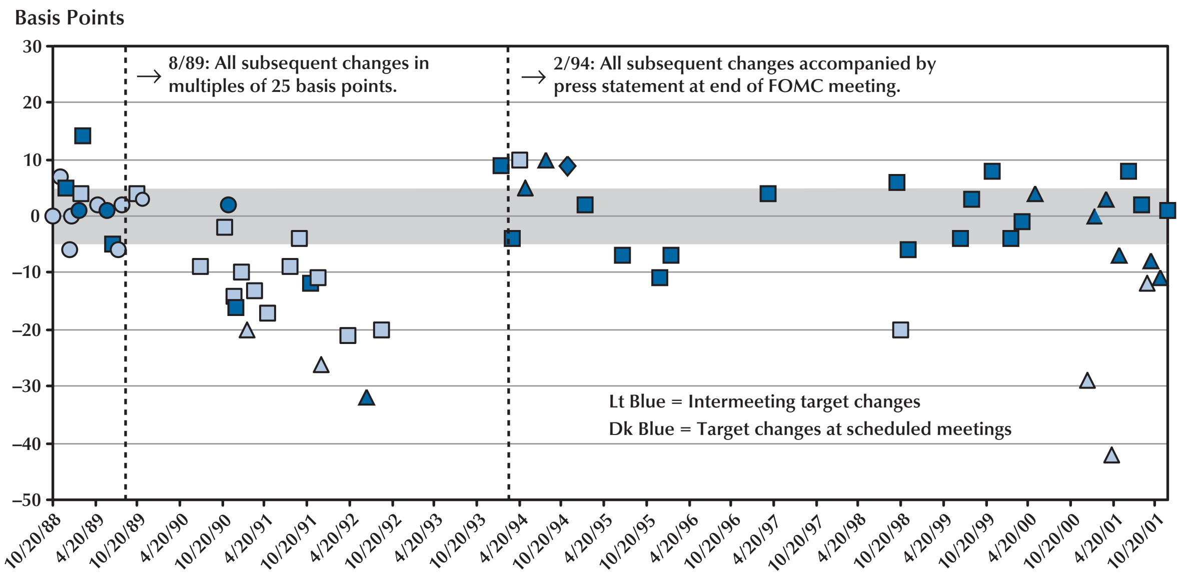
[1] For additional discussion and analysis of expectations about future federal funds rates, see Poole and Rasche (2000) and Kuttner (2001).

[2] For a detailed analysis see Poole, Rasche, and Thornton (2002).

Figure 1

Surprises to Fed Funds Futures Rate When Policy Actions Were Implemented



NOTE: □ 25-basis-point change, △ 50-basis-point change, ◇ 75-basis-point change, ○ change that market was not immediately aware had occurred (Poole, Rasche, and Thornton, 2002).

on the one-month-ahead federal funds futures contract.

- The points plotted in light blue indicate policy actions that were undertaken between regularly scheduled FOMC meetings. Points plotted in dark blue indicate policy actions undertaken at regularly scheduled FOMC meetings.
- Points plotted with a square indicate 25-basis-point changes in the intended funds rate; points plotted with a triangle indicate 50-basis-point changes in the intended funds rate; and the point plotted with a diamond (November 15, 1994) indicates a 75-basis-point change in the intended funds rate.
- The area shaded in gray, plus and minus 5 basis points, indicates the region that we have defined as insignificant noise in this market.
- The graph is divided into three sections, each of which reflects a different context in which FOMC policy actions were implemented.

  (i) Before August 1989, policy actions were not announced and were frequently smaller than 25 basis points. Our reading of the news reports indicates that in most cases market participants were not aware of these policy actions on the day following the decision. These points are plotted as circles.

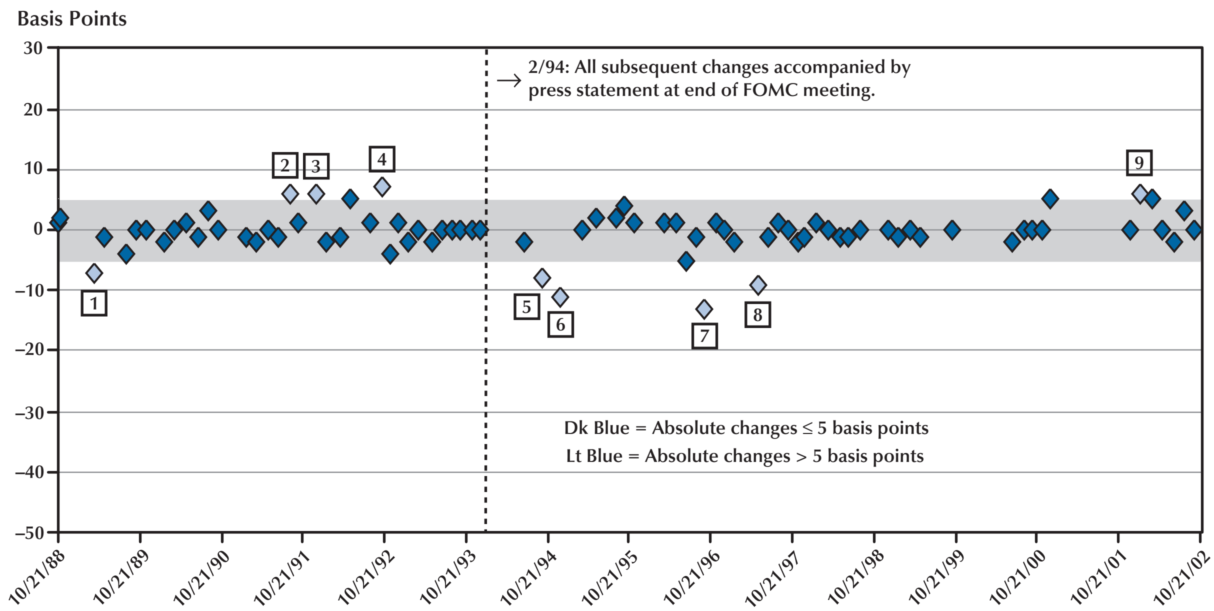
  (ii) From August 1989 until February 1994, all policy actions were 25 basis points or multiples thereof but were not publicly announced. However, with four exceptions, we were able to confirm from newspaper reports that market participants detected the policy action on the day following the decision.

  (iii) From February 1994 to the present, all policy actions were 25 basis points or multiples thereof and each action was publicly announced by the FOMC following the decision.

Our conclusion from this analysis is that intermeeting moves (the light blue points) generate news to the market. That is, such moves generally surprise markets. In many cases these surprises are large. The FOMC and market participants are not well "synched" in these circumstances. In contrast, policy actions taken at regularly scheduled FOMC meetings, particularly since February 1994, generate little if any news in the market. Such actions have been well anticipated by market participants. The data suggest that these actions at most involved small surprises. In these circumstances the FOMC and market participants seem to be well synched. Our interpretation is that financial market participants

Figure 2

Surprises on FOMC Meeting Dates with No Policy Actions



NOTE: Surprises before 2/94: (1) = 3/29/89 (–.07), (2) = 8/21/91 (.06), (3) = 12/19/91 (.06), (4) = 10/7/92 (.07); surprises since 2/94: (5) = 9/27/94 (–.08), (6) = 12/20/94 (–.11), (7) = 9/24/96 (–.13), (8) = 5/20/97 (–.09), (9) = 1/30/02 (.06).

have observed incoming information on the economy and have correctly perceived how the FOMC will respond to that information.

The second graph, Figure 2, refers to cases where "the dog didn't bark"—FOMC meetings at which no policy action was implemented.

- The time line starts with October 1988, when trading began in the federal funds futures market, and continues through the September 2002 FOMC meeting.
- The area shaded in gray, plus and minus 5 basis points, indicates the region that we have defined as insignificant noise in this market.
- There are only nine points over the entire period that we believe indicate surprises to market participants. Four of these occurred before February 1994 and five occurred subsequent to that date. All of the "surprises" are relatively small.

The conclusion from this graph is that the FOMC and market participants have been well synched in those circumstances when the FOMC believed that the incoming information on the economy was not sufficient to justify a policy action.

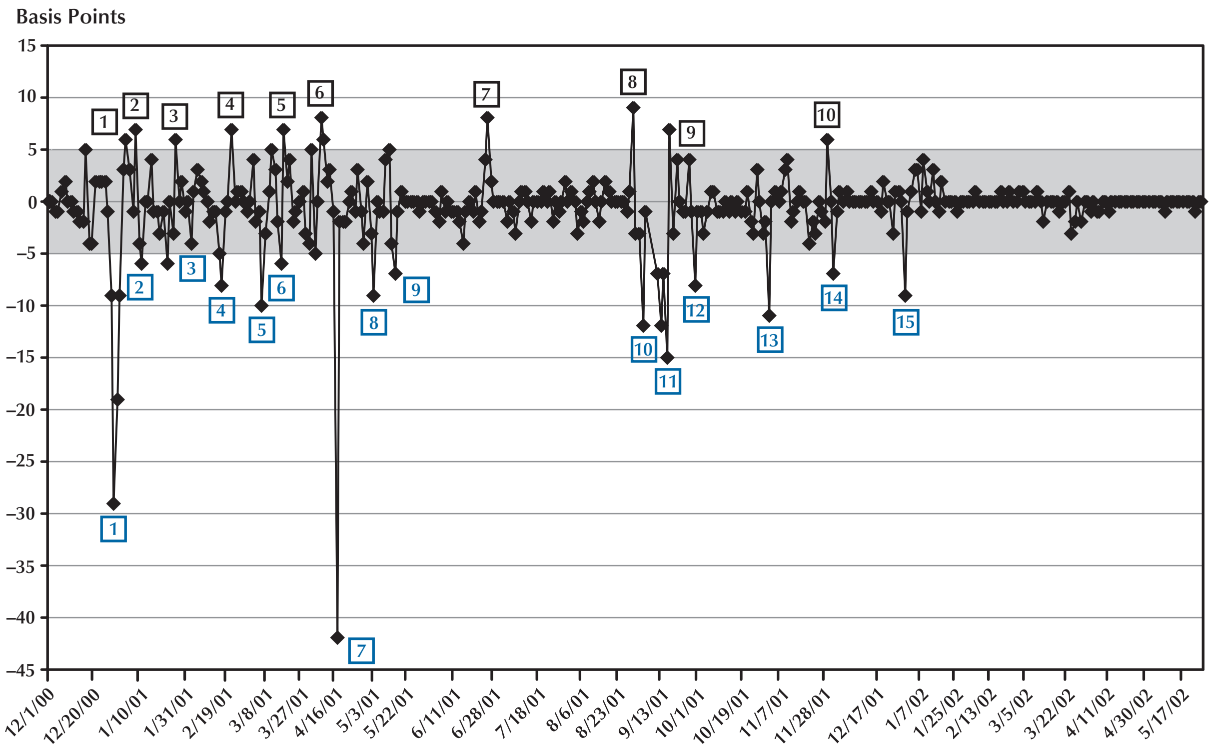
If market participants are well synched with the FOMC, then what types of information are providing the clues about future FOMC policy actions to the markets? Figure 3 is a case study of the period since the beginning of December 2000 through May 31, 2002. During this period the FOMC reduced the intended funds rate from 6.5 percent to 1.75 percent.

- The data plotted are the daily changes in yield on the one-month-ahead federal funds futures contract. There are a total of 374 observations.
- The area shaded in gray indicates a range of plus and minus 5 basis points in which we interpret the daily changes as merely ambient noise in the market.
- Fifteen observations (4.0 percent of the total) are positioned below the zero line in blue. These represent events where the funds rate futures contract fell by more than 5 basis points.
- Ten observations (2.7 percent of the total) are positioned above the zero line in black. These represent events where the rate rose by more than 5 basis points.

Figure 3

News Affecting Daily Fed Funds Futures Rate

December 1, 2000 – May 31, 2002



NOTE: Numbers above the zero line (in black, 1-10) indicate events where the federal funds futures rate rose by more than 5 basis points. Numbers below the zero line (in blue, 1-15) indicate events where the rate fell by more than 5 basis points. These numbers correspond to those in Table 1.

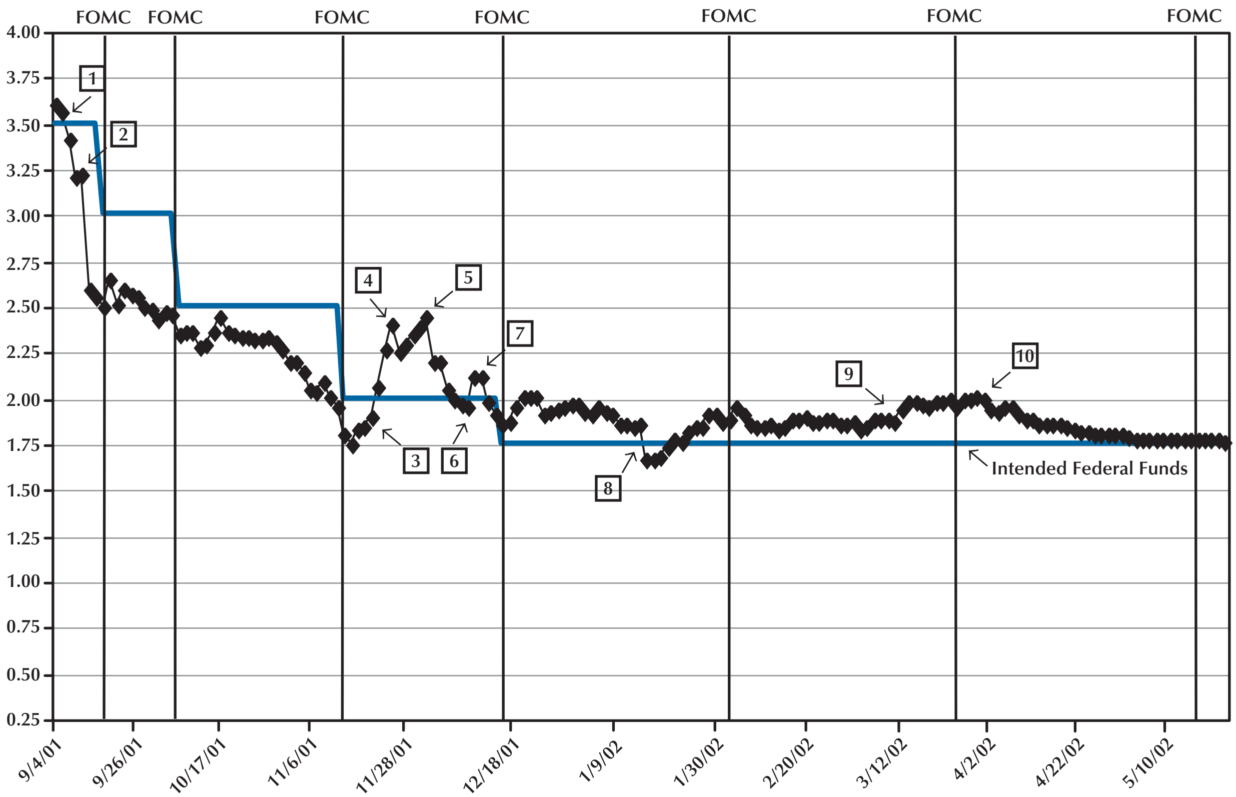
- The front page and the Credit Markets column in the *Wall Street Journal* have been checked for news associated with each of the twenty-five labeled events. The reports that appear there are indicated in Table 1. In four cases we have not found any "economic news" cited in either source. Six of the labeled changes are the FOMC actions noted in Figure 1 (excluding September 17, 2001, where simultaneously there is economic news, the intermeeting policy action, and the reopening of the equity markets after the terrorist attacks). Ten of the labeled changes are associated with the release of economic data, including four involving the release of employment data. Three of the labeled changes are associated with congressional testimony of Chairman Greenspan. One labeled change followed public remarks by other Federal Reserve officials. The remaining labeled change is the aftermath of the terrorist attack and intermeeting policy action of September 17, 2001.

The conclusions from Figure 3 are that (i) important news arrives relatively infrequently and (ii) the most significant news is FOMC actions (e.g., April 18, 2001; event 7, below zero line in blue), statements and testimony by FOMC members (e.g., January 11, 2002; event 15, below zero line in blue), or new economic data that market participants believe will affect future FOMC actions (e.g., September 7, 2001; event 10, below zero line in blue).

If markets are well synched with FOMC policy actions, then how far in advance are accurate forecasts formed? In some cases the lead-time is considerable. Figure 4 provides a case study using the June 2002 futures contract. In this graph, daily data on the level of the futures rate are plotted.

Figure 4

June 2002 Fed Funds Futures Rate



NOTE: Boxed numbers correspond to numbered events in Table 2.

- This contract began trading at the beginning of September 2001.
- The vertical lines indicate the days of FOMC meetings and policy actions between meetings.
- The blue line indicates the intended federal funds rate.

When the June 2002 contract initially traded, the then-prevailing 3.5 percent intended funds rate was anticipated to hold over the next ten months. This conviction eroded substantially upon the release of the August 2001 advanced retail sales and employment numbers (see event 1 in Table 2). Going into the terrorist attacks of 9/11, market participants saw a 3.25 percent intended funds rate in June 2002.

With the terrorist attacks, market expectations of the June 2002 intended funds rate were revised sharply downward to about 2.5 percent, well below the intended funds rate that prevailed over the remainder of September 2001 (see event 2 in Table 2). Expectations gradually eroded by a cumulative 75 basis points from mid-September until shortly after the November FOMC meeting, during which time the FOMC reduced the intended funds rate by 100 basis points in two steps.

With the news that the Taliban had left Kabul and the release of data on October retail sales in mid-November, expectations of the June 2002 intended funds rate were revised sharply upward to almost 2.5 percent (see event 3 in Table 2). This euphoria lasted only a few days until the release of data on new home construction in October (see event 4 in Table 2) and existing-home sales and consumer confidence (see event 5 in Table 2). At this time the then-prevailing intended funds rate of 2.0 percent was expected to continue until mid-2002.

The release of manufacturing data for November generated an upward revision of expectations of

Table 1

Futures Rate Changes and Reported News Events

Event	Date	Futures rate change	News reported
1	1/9/2001	0.06	No front-page reports 1/10/2001.
2	1/12/2001	0.07	"Retail sales inched up 0.1% in December, though downward revisions for October and November cancelled that slight gain. Core prices rose 0.3%." *WSJ* 1/15/2001, p. 1
3	2/1/2001	0.06	"The jobless rate edged up to 4.2% last month, its highest level since September 1999 but only a bit above the near 30-year-low of 4% set in December." *WSJ* 2/5/2001, p. 1
4	2/28/2001	0.07	"Greenspan dashed hopes for an imminent interest-rate cut, pushing stocks down. The Fed chairman told a House panel that recession poses a greater risk than inflation as consumer confidence continues to slide, suggesting that a rate cut is likely at the Fed's regular March 20 meeting. But he disappointed investors who had hoped for signs of an earlier reduction." *WSJ* 3/1/2001, p. 1
5	3/23/2001	0.07	No front-page reports 3/26/2001.
6	4/10/2001	0.08	No front-page reports 4/11-12/2001. "The bond market received a blow when Fed officials' remarks pointed to the chances of a recovery of the U.S. economy sooner rather than later, reducing hopes among some market participants that future rate cuts will be as aggressive as previously anticipated. William Poole, president of the Federal Reserve Bank of St. Louis, said that while the U.S. economy has slowed, 'weaker near-term prospects seem not to have dimmed the long-run outlook of robust growth'." *WSJ* 4/11/2001, p. C19
	4/11/2001	0.06	"In public appearances this week, Fed officials have sounded a generally upbeat tone on the economy, with some projecting an acceleration of growth after a weak first half. Analysts said that suggests the Fed isn't concerned enough about the economy or other factors to cut rates immediately." *WSJ* 4/12/2001, p. C17
7	6/27/2001	0.08	"The Fed cut interest rates for the sixth time this year, lowering its federal-funds target by a quarter point to 3.75%. Though the cut was the smallest this year, the central bank signaled it was poised to keep easing credit conditions. The Fed move didn't jar the market, even though many analysts had predicted a half-point cut." *WSJ* 6/28/2001, p. 1
8	9/4/2001	0.09	"The manufacturing sector appears to have turned a corner in August, as the NAPMs index of manufacturing activity showed significant improvement." *WSJ* 9/5/2001, p. 1
9	9/20/2001	0.07	"At a Senate hearing, Greenspan painted a grim picture of short-term economic weakness, citing weak corporate earnings and layoffs. A survey of economic forecasters said the economy is heading into a recession, and that it will last at least through the year." *WSJ* 9/21/2001, p. 1
10	12/5/2001	0.06	"Manufacturing is showing incipient signs of recovery for the first time in over a year. Meanwhile, the service sector rebounded last month after suffering its worst month on record in October." *WSJ* 12/6/2001, p. 1

Table 1 cont'd

Futures Rate Changes and Reported News Events

Event	Date	Futures rate change	News reported
1	1/2/2001	–0.09	"Manufacturing activity slowed last month to its weakest point in almost 10 years, as the NAPM index fell to 43.7 from 47.7 in November." *WSJ* 1/3/2001, p.1
	1/3/2001	–0.29	"The Fed cut a key interest rate, sending markets soaring. The central bank, in a rare move between meetings, lowered the federal funds target to 6.0% from 6.5%." *WSJ* 1/4/2001, p. 1
	1/4/2001	–0.19	"Most retail chains reported disappointing December sales, making the holiday shopping season the worst in at least five years." *WSJ* 1/5/2001, p. 1
2	1/18/2001	–0.06	"Housing starts edged up last month but applications for building permits fell, suggesting a further slowdown." *WSJ* 1/19/2001, p. 1
3	1/30/2001	–0.06	"Consumer confidence plunged in January, cementing expectations that the Fed will cut rates by half a point and sparking hopes of an even bigger cut." *WSJ* 1/31/2001, p. 1
4	2/23/2001	–0.08	No front-page reports 2/26/2001.
5	3/14/2001	–0.10	No front-page reports 3/15/2001.
6	3/22/2001	–0.06	"Leading economic indicators fell for the fourth time in five months in February, but still didn't point to a recession." *WSJ* 3/23/2001, p. 1
7	4/18/2001	–0.42	"The Fed cut short-term interest rates by a half point in a surprise move that sent stocks soaring." *WSJ* 4/19/2001, p. 1
8	5/4/2001	–0.07	"Unemployment jumped to 4.5% in April from 4.3% the month before, raising fears that consumers will curtail spending and spark a recession." *WSJ* 5/7/2001, p. 1
9	5/15/2001	–0.07	"The Fed cut short-term rates by half a point, its fifth big rate reduction in as many months, and did nothing to signal that it is ending its campaign to jump-start the economy." *WSJ* 5/16/2001, p. 1
10	9/7/2001	–0.12	"The surge in unemployment is raising fears that the business cycle may be entering a new and harrowing phase." *WSJ* 9/10/2001, p. 1
11	9/14-19/2001	–0.41	September 11, 2001, terrorist attack on World Trade Center
12	10/2/2001	–0.08	"The Fed cut the target for its federal-funds rate to 2.5% from 3% and left the door open to further rate cuts, as it continued an aggressive campaign to stimulate the economy." *WSJ* 10/3/2001, p. 1
13	11/6/2001	–0.11	"The Fed cut interest rates by half a point to their lowest level since 1961 and, citing a deteriorating economy, suggested more cuts could be in store." *WSJ* 11/7/2001, p. 1
14	12/7/2001	–0.07	"A rise in the jobless rate last month to its highest level in over six years damped predictions that an economic recovery has begun. Economists expect the Fed to lower rates again tomorrow." *WSJ* 12/10/2001, p. 1
15	1/1/2002	–0.09	"Greenspan said the economy shows signs of stabilizing but still faces major risks before a sustainable recovery can begin. The downbeat assessment raises the odds the Fed again will cut interest rates at its meeting this month." *WSJ* 1/14/2002, p. 1

NOTE: The first 10 numbers (corresponding to the upper numbers in Figure 3, in black) indicate events where the funds rate futures contract rose by more than 5 basis points. The next 15 numbers (corresponding to the lower numbers in Figure 3, in blue) indicate events where the rate fell by more than 5 basis points.

Table 2

Futures Rate Changes and Reported News Events

Event	Date	Futures rate change	News reported
1	9/6/2001	–0.15	"Discount stores performed well in August, but specialty-apparel retailers and high-end department stores suffered." *WSJ* 9/7/2001, p. 1
	9/7/2001	–0.20	"The surge in unemployment is raising fears that the business cycle may be entering a new and harrowing phase." *WSJ* 9/10/2001, p. 1
2	9/13/2001	–0.63	September 11, 2001, terrorist attack on World Trade Center
3	11/13/2001	0.06	"Rebels Seize Kabul As Taliban Forces Flee Afghan Capital" *WSJ* 11/14/2001, p. 1
	11/14/2001	0.16	"Retail sales shot up a record 7.1% in October. The surge was led by a 26.4% jump in auto sales, which were aided by zero-percent financing and other incentives." *WSJ* 11/15/2001, p. 1
	11/15/2001	0.21	—
	11/16/2001	0.13	"Consumer prices slipped in October amid continued drops in energy prices, a possible positive sign for reigniting spending. But industrial output fell for the 13th straight month, the longest string of declines since the Depression." "Hiring plans are approaching a weakness not seen since the recessionary early months of 1991—Manpower's survey of nearly 16,000 companies says." *WSJ* 11/19/2001, p. 1
4	11/19/2001	–0.15	"New-home construction fell 1.3% in October and builders requested permits at the slowest pace in four years, another sign that the housing market is slowing." *WSJ* 11/20/2001, p.1
5	11/27/2001	–0.25	"Existing-home sales rose 5.5% last month after a weak September. But consumer confidence, hurt by layoffs, slid in November to an eight-year low." *WSJ* 11/28/2001, p. 1
6	12/5/2001	0.16	"Manufacturing is showing incipient signs of recovery for the first time in over a year. Meanwhile, the service sector rebounded last month after suffering its worst month on record in October." *WSJ* 12/6/2001, p. 1
7	12/7/2001	–0.14	"A rise in the jobless rate last month to its highest level in over six years damped predictions that an economic recovery has begun. Economists expect the Fed to lower rates again tomorrow." *WSJ* 12/10/2001, p. 1
8	1/11/2002	–0.19	"Greenspan said the economy shows signs of stabilizing but still faces major risks before a sustainable recovery can begin. The downbeat assessment raises the odds the Fed again will cut interest rates at its meeting this month." *WSJ* 1/14/2002, p. 1
9	3/7/2002	0.07	"Greenspan gave the Senate a considerably more upbeat assessment of the economy than he did in House testimony last week. The Fed chairman said recent evidence suggests 'an economic expansion is already well under way'." *WSJ* 3/8/2002, p. 1
10	3/26/2002	–0.06	"Consumer confidence surged in March to its highest level since before the Sept. 11 attacks, suggesting the U.S. may enjoy a broad economic recovery." *WSJ* 3/27/2002, p.1

the June 2002 intended funds rate (see event 6 in Table 2), but this expectation was reversed when November employment data became available two days later (see event 7 in Table 2).

From the December 2001 FOMC meeting until the end of May 2002, the June 2002 contract traded in the range of 1.75 to 2.0 percent, with the exception of a couple of days in January. The yield briefly dropped below 1.75 percent after the January 11, 2002, Congressional testimony of Chairman Greenspan, which was widely interpreted as pessimistic and as a signal that an additional cut in the intended funds rate might be forthcoming (see event 8 in Table 2). This effect was quite short-lived, and within a few days the yield was back within the 1.75 to 2.0 percent range. After the Chairman's Senate testimony on March 7, 2002, the yield moved to 2.0 percent, indicating a conviction that no later than the May 2002 FOMC meeting the intended funds rate would be raised by 25 basis points (see event 9 in Table 2). Between the March FOMC meeting and mid-April, this conviction gradually eroded, and for the month prior to the May FOMC meeting a firmly held conviction prevailed in the market that no change in the intended funds rate would occur before the June FOMC meeting.

We conclude, from the small average size of market surprises concerning FOMC policy changes, that in recent years the market has had an excellent understanding of what the FOMC is doing. For the most part, rate changes occur in response to news that *should* change rates. These findings, we believe, provide strong evidence of the payoff from greater Fed transparency and greater regularity in monetary policy actions.

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