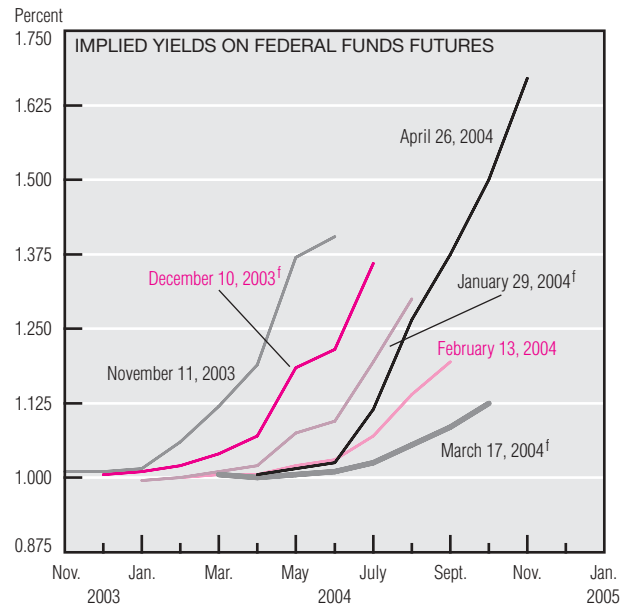
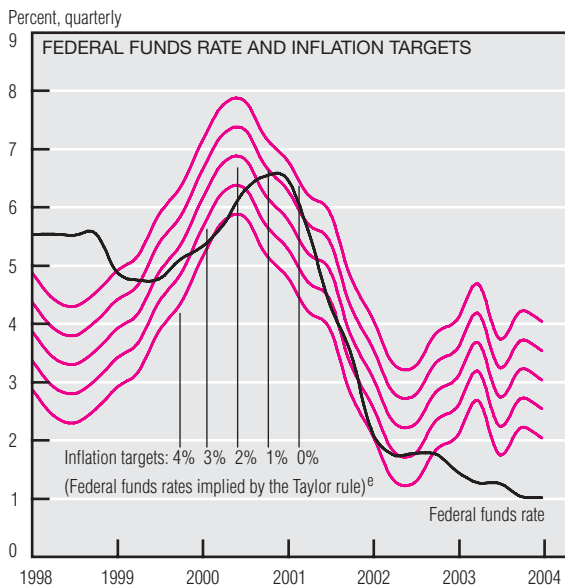
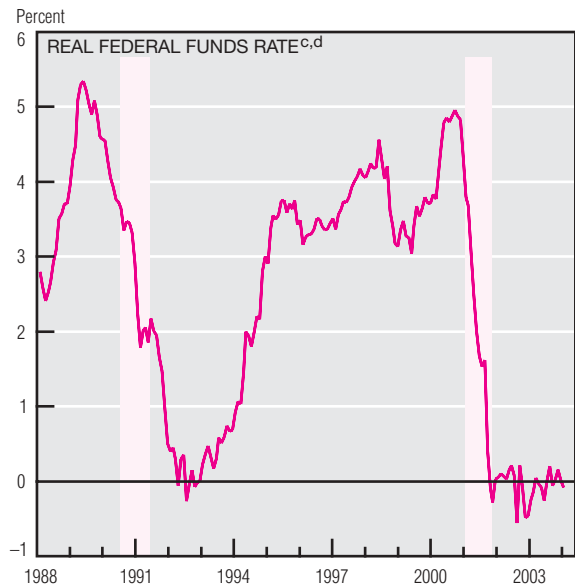
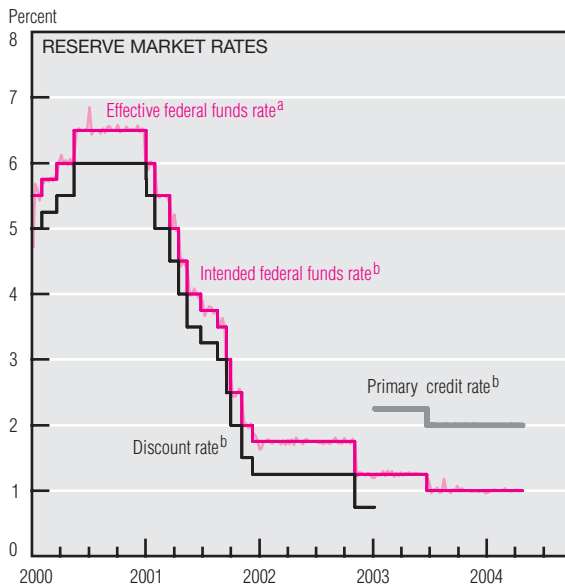


Monetary Policy



a. Weekly average of daily figures.

b. Daily observations.

c. Defined as the effective federal funds rate deflated by the core PCE Chain Price Index.

d. Shaded bars indicate periods of recession.

e. The formula for the implied funds rate is taken from Federal Reserve Bank of St. Louis, *Monetary Trends*, January 2002, which is adapted from John B. Taylor, "Discretion versus Policy Rules in Practice," *Carnegie-Rochester Conference Series on Public Policy*, vol. 39 (1993), pp. 195-214.

f. One day after the FOMC meeting.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; Congressional Budget Office; Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Releases*, H.15; and Bloomberg Financial Information Services.

As of this writing, the target federal funds rate remains at 1%, where it has been since June 2003. A low rate in itself does not necessarily signify easy money or an accommodative policy stance, but other measures currently support that interpretation. The real federal funds rate (calculated as the actual funds rate minus the inflation rate) has hovered around zero since late 2001. The fed funds rate has also stayed well below a popular benchmark provided by

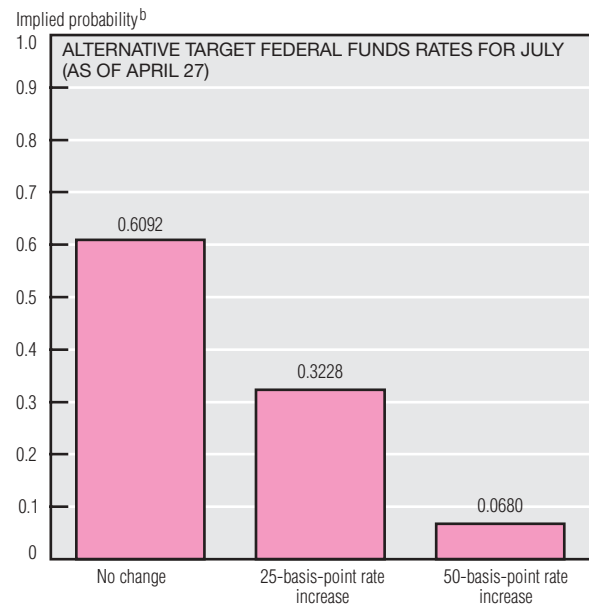
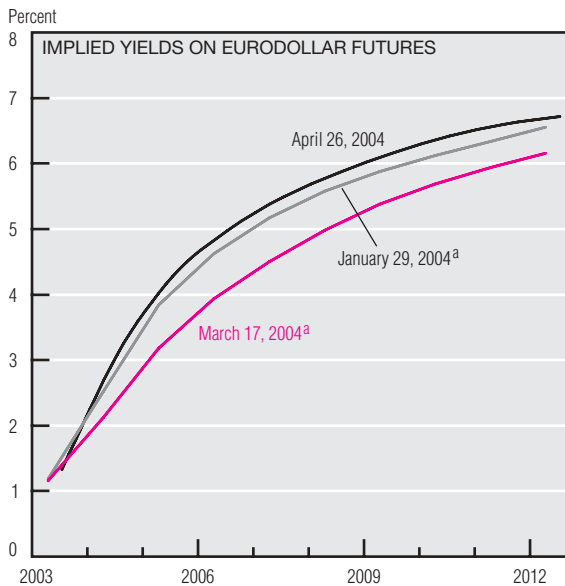
the Taylor rule, which posits that the Federal Open Market Committee chooses the target rate as a balanced response to weakness and inflation. The form of this rule depends on the weights assigned to inflation and output and on the assumed inflation target, but since mid-2002, the rate has fallen well below what the rule would have predicted, even assuming the rather high inflation target of 4%.

Financial markets have certainly been behaving as if low rates will not

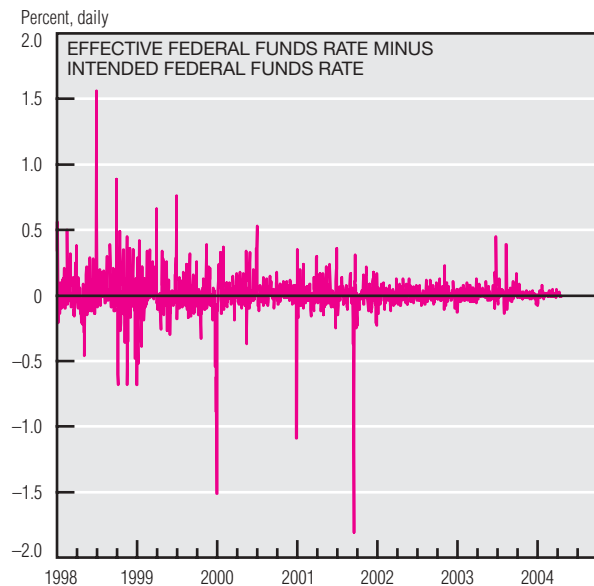
last forever. The implied yield on fed funds futures now reflects the market's belief that an upward move is likely at the June meeting and nearly certain after that. Information about longer-term expectations can be inferred from eurodollar futures; these extend further than fed funds futures contracts, which currently extend only until November. Eurodollar futures suggest that the markets expect further increases in 2005, although comparisons must be made cautiously

(continued on next page)

Monetary Policy (cont.)



Federal Funds Rate Policies, 1983–2004			
	Average	Maximum	Minimum
Increase			
Number of months	3.7	12.1	0.7
Percent change	1.09	3.25	0.125
Decrease			
Number of months	8.4	40.4	1.4
Percent change	1.66	6.75	0.25
Stationary			
Number of months	8.4	18.4	0.9



a. One day after the FOMC meeting.

b. Probabilities are calculated by using prices from options on July 2004 federal funds futures that trade on the Chicago Board of Trade.

SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Releases*, H.15; Chicago Board of Trade; and Bloomberg Financial Information Services.

because eurodollars are not federal funds.

Even given the caveats, futures markets can be used to back out an expectation from the market, but this tells us nothing about the uncertainty surrounding that expectation. It's tempting to infer, when looking at a 12.5 basis point (bp) change in fed funds futures, that the market sees a 50% chance of a 25 bp move; however, the market's expectation often includes the views of participants who expect larger and smaller changes.

Information about those views can be derived from another financial instrument, options on fed funds futures. These suggest that market participants see a slight chance of a 50 bp increase by July.

Has the FOMC kept rates low for longer than usual, irrespective of the justification? And is there any historical evidence to suggest how extensive the increases will be when they come? Since 1983, the FOMC has kept rates constant for a mean length of 8.4 months; the current

hold pattern has lasted 10 months. Increases averaged a bit less than four months, but the average decrease lasted more than eight months and some lasted far longer.

The emphasis on the target fed funds rate makes sense only if the actual, effective fed funds rate stays close; that is, if the target is hit. Here the Fed's marksmanship looks good: On a daily basis, the average difference between target and actual is less than 1 bp, although on rare occasions it is appreciably higher.