Prefatory Note

The attached document represents the most complete and accurate version available based on original files from the FOMC Secretariat at the Board of Governors of the Federal Reserve System.

Please note that some material may have been redacted from this document if that material was received on a confidential basis. Redacted material is indicated by occasional gaps in the text or by gray boxes around non-text content. All redacted passages are exempt from disclosure under applicable provisions of the Freedom of Information Act.

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STRICTLY CONFIDENTIAL (FR) CLASS I FOMC

JUNE 24, 2004

MONETARY POLICY ALTERNATIVES

PREPARED FOR THE FEDERAL OPEN MARKET COMMITTEE
BY THE STAFF OF THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Strictly Confidential (F.R.) **June 24, 2004**
Class I – FOMC

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) The decision at the May 4th FOMC meeting to keep the target federal funds rate at 1 percent came as no surprise to market participants. Moreover, the replacement of the sentence in the announcement reporting that the Committee could be "patient" in removing policy accommodation with one indicating that "policy accommodation can be removed at a pace that is likely to be measured" had little net effect on money market futures rates that afternoon.[1] In subsequent weeks, however, investors marked up the extent of expected policy tightening significantly in response to economic releases that indicated robust gains in employment and spending and somewhat elevated inflation, as well as to comments by Committee members assuring that policy would be tightened as necessary to contain any incipient inflationary pressures. Current readings on near-term money market futures and options suggest that market participants are nearly certain of a 25-basis-point increase in the target federal funds rate at this meeting. All twenty-three primary dealers responding to the most recent survey by the Trading Desk expect the FOMC to retain the reference to a "measured" pace of tightening or to substitute a close variant in its announcement (Chart 1). Most dealers also expect the statement to indicate balanced risks with respect to price stability and output, although a few anticipate a shift to upside risks to at least one of these objectives. Through the end of next year, the expected federal funds rate indicated by futures quotes is 20 to 40 basis points higher than at the time of the May meeting, placing the funds rate at about 2¼ percent by the end of this year and 3¾ percent by the end of 2005.

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[1] The effective federal funds rate averaged 1 percent over the intermeeting period. The Desk expanded the System's outright holdings of securities by $8.9 billion, with purchases from foreign official customers of $0.8 billion of Treasury bills and purchases from dealers of $2.8 billion of Treasury bills and $5.3 billion of coupon securities. The volume of outstanding long-term RPs increased $3 billion to $19 billion.

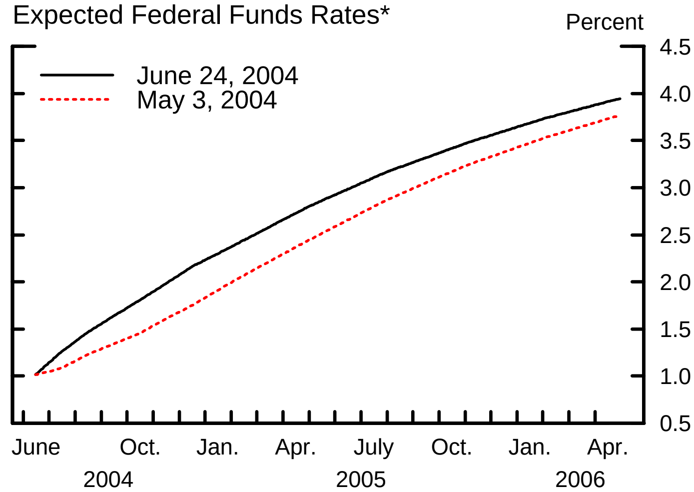
Chart 1
Interest Rate Developments

Policy Expectations

	Expected Federal Funds Rate (percent)	
	June Meeting	Year-End
Futures Market	1.25	2.24
Dealer Survey (median)	1.25	2.00
	Assessment of Risks Paragraph (percent of dealers)	
	To the Upside	Balanced
Growth Risks	17	83
Inflation Risks	22	78
	Use "Measured"	Similar Language
"Measured" Sentence	70	30

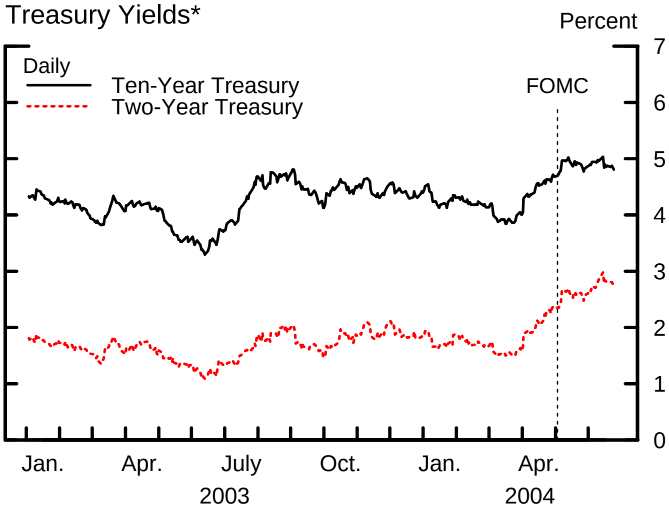
Note: Expected funds rate from futures market based on money market futures prices as of June 24, 2004. Dealer expectations based on a Trading Desk survey conducted June 17-22, 2004.

Expected Federal Funds Rates*



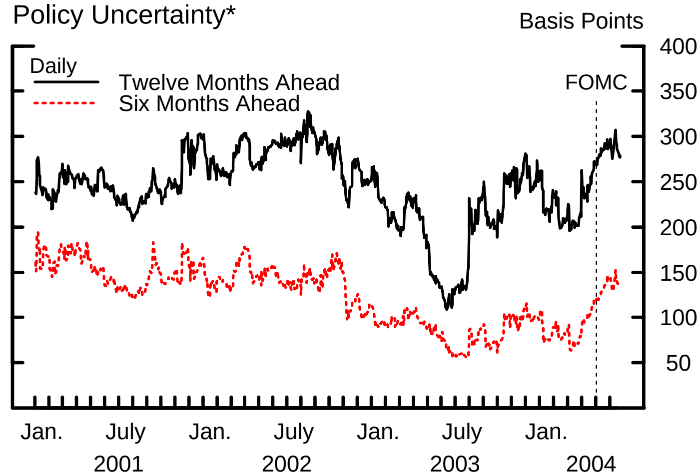
*Estimates from federal funds and eurodollar futures, with an allowance for term premia and other adjustments.

Treasury Yields*



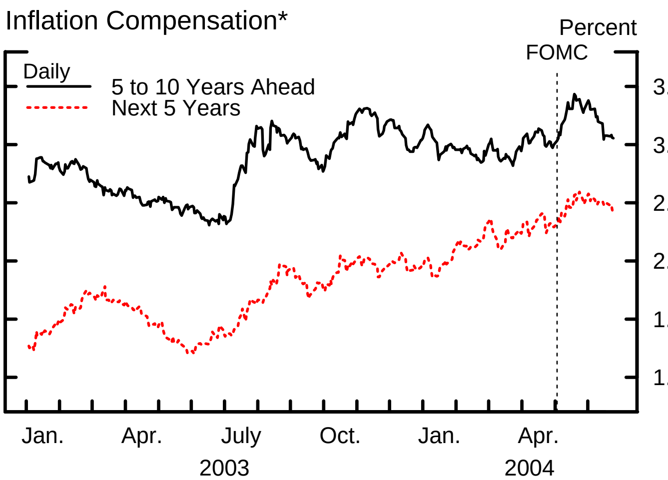
*Par yields from an estimated off-the-run Treasury yield curve.

Policy Uncertainty*



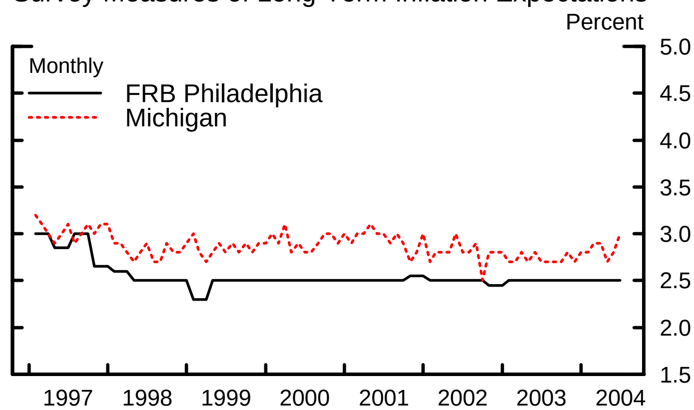
*Width of a 90 percent confidence interval for the federal funds rate computed from the term structures for both the expected federal funds rate and implied volatility.

Inflation Compensation*



*Based on a comparison of an estimated TIPS yield curve to an estimated nominal off-the-run Treasury yield curve.

Survey Measures of Long-Term Inflation Expectations



Note: The black line measures median ten-year inflation expectations by the Philadelphia FRB survey. The red line plots the Michigan survey median five- to ten-year inflation expectations.

Note: Vertical lines indicate May 3, 2004. Last daily observations are for June 24, 2004.

(2) In part reflecting the upward revision in policy expectations, yields on nominal Treasury coupon securities climbed 10 to 40 basis points over the intermeeting period. The shift upward in yields was accounted for by increases in forward rates at short to intermediate maturities, as forward rates at longer maturities were little changed on net. Yields on inflation-indexed Treasury securities rose less than those on their nominal counterparts, as strengthening aggregate demand reportedly caused inflation compensation to move a little higher. (The box below provides more detail on the recent behavior of inflation compensation.) Some survey measures of inflation expectations have also ticked up recently. In the market for

The Recent Behavior of Inflation Compensation

Inflation compensation, as measured by comparing the yields on nominal and indexed Treasury securities, has moved up appreciably in recent months as incoming economic data have suggested a more robust expansion and higher inflation than had been anticipated (lower left-hand panel of Chart 1). During the intermeeting period, inflation compensation initially moved higher, at least partly in response to stronger-than-expected employment data, the high PPI inflation reading for April, and a runup in oil prices, all of which may have boosted both expected inflation and inflation risk premiums. Notably, five-year inflation compensation five years ahead, which had remained in a range between about 2¾ percent and 3¼ percent since early last summer, increased more than 40 basis points to almost 3½ percent by mid-May. This measure of inflation compensation fell back over the second half of the period, however, reflecting in part responses to the benign May CPI report and remarks by Chairman Greenspan and other Committee members emphasizing that monetary policy would be tightened as necessary to keep inflation in check. These remarks apparently helped to reduce expected inflation and may have lowered investors' perceptions of inflation risk. On balance, inflation compensation for the next five years increased 8 basis points over the intermeeting period, and five-year inflation compensation five years ahead was about unchanged, ending the period in the middle of its recent range.

While the recent movements in inflation compensation seem to provide plausible indications of shifts in expected inflation and inflation risk premiums, there are reasons to be cautious in interpreting these readings. For example, the indexation of TIPS occurs with a lag, and so the recent high headline CPI readings may have boosted inflation compensation above the level consistent with the inflation rate actually expected to prevail in future months. In addition, increasing numbers of institutional investors have reportedly begun purchasing TIPS this year, owing at least in part to an assessment that the market has become sufficiently large and mature to make investment desirable. Such purchases may be pushing TIPS yields lower, boosting measured inflation compensation.

corporate securities, yields on investment- and speculative-grade bonds generally rose by about the same amounts as those on comparable Treasuries, leaving risk spreads about unchanged (Chart 2). Notwithstanding the backup in interest rates, major equity indexes edged higher, on net, over the intermeeting period, buoyed by generally positive news about the economy and earnings prospects.

(3) The dollar depreciated about 2¼ percent, on balance, against other major currencies over the intermeeting period, driven in part by increased geopolitical tensions (Chart 3).[2] The dollar moved down almost 3 percent against the yen, as new data in Japan showed a continued firming of economic activity. The dollar fell about 3 percent against the British pound and 4½ percent against the Swiss franc, as monetary authorities in both of those countries tightened policy. Amid some signs that inflation in many parts of the world may be drifting higher, expected short-term interest rates in major industrial countries increased noticeably over the intermeeting period. Yields on longer-term government bonds in Europe and Canada rose 10 to 25 basis points and those in Japan gained 40 basis points. Despite higher interest rates, equity indexes moved in narrow ranges in most countries.

(4) Over the intermeeting period, the dollar edged up a bit against an index of currencies of our other important trading partners. Expectations that Chinese authorities will act to rein in China's expansion, along with the rise in U.S. interest rates, drove stock prices down in many countries across Asia, prominently including Korea and Taiwan. Indonesian stock prices also dropped significantly amid concerns about political unrest, and the rupiah fell about 7½ percent over the period. In Latin America, both the Mexican peso and the Brazilian *real* weakened versus the dollar in the wake of the U.S. employment report for April. The peso more than retraced its loss, as incoming data suggested a brightening economic outlook. Economic activity picked up in Brazil too, but the *real* lost nearly 5 percent of its value on concerns about the stalling of Brazilian fiscal reforms and worries about the sustainability of its debt position.

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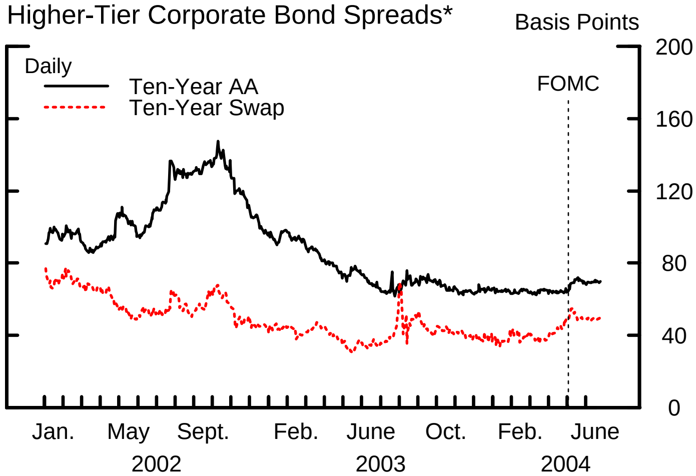
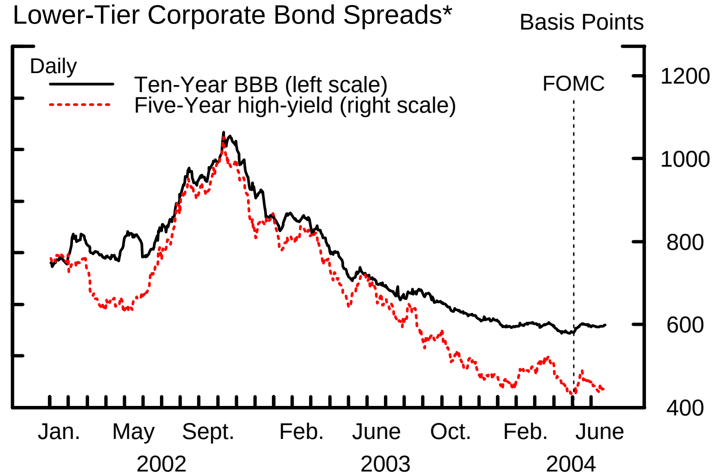
Chart 2
Financial Market Indicators

Higher-Tier Corporate Bond Spreads*



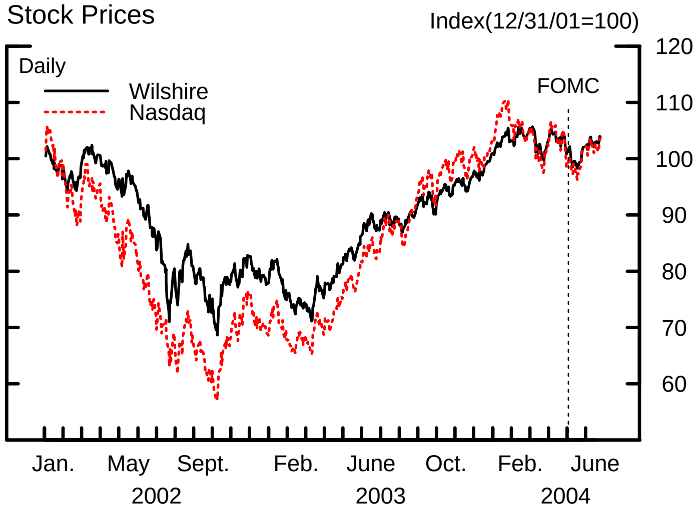
*AA spread measured relative to an estimated off-the-run Treasury yield curve. Swap spread measured relative to the on-the-run Treasury security.

Lower-Tier Corporate Bond Spreads*

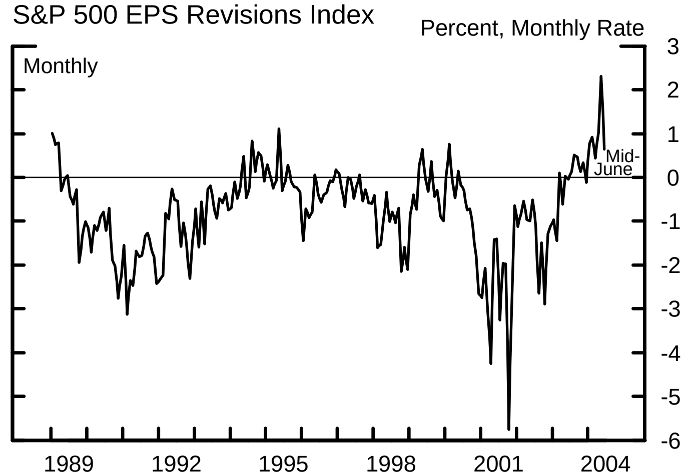


*Measured relative to an estimated off-the-run Treasury yield curve.

Stock Prices

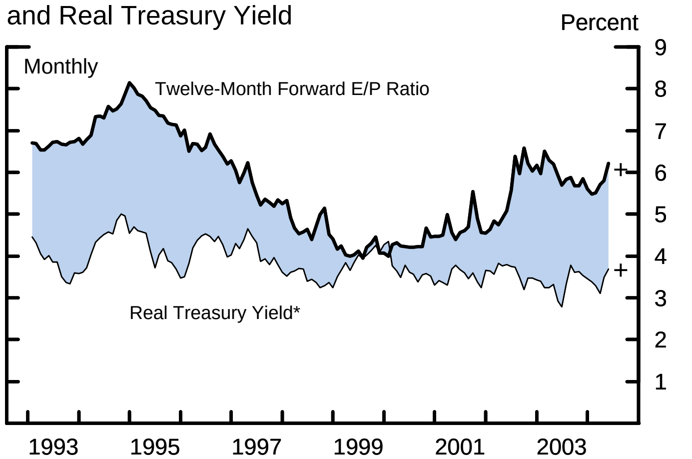


S&P 500 EPS Revisions Index



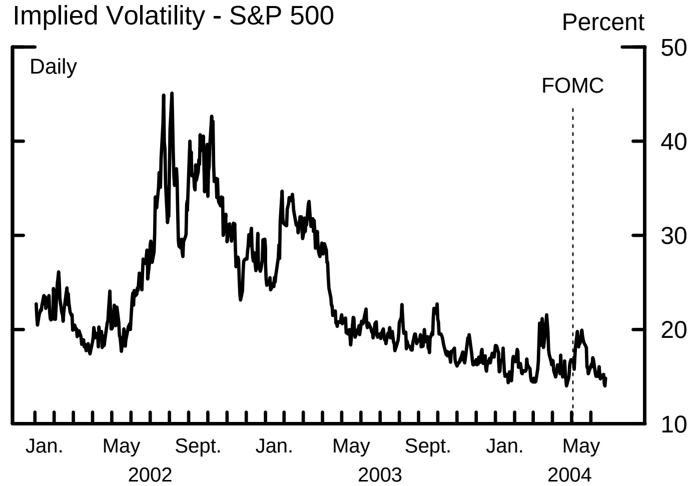
Note. Index is a weighted average of the percent change in the consensus forecasts of current-year and following-year earnings per share.

Earnings-Price Ratio for S&P 500
and Real Treasury Yield



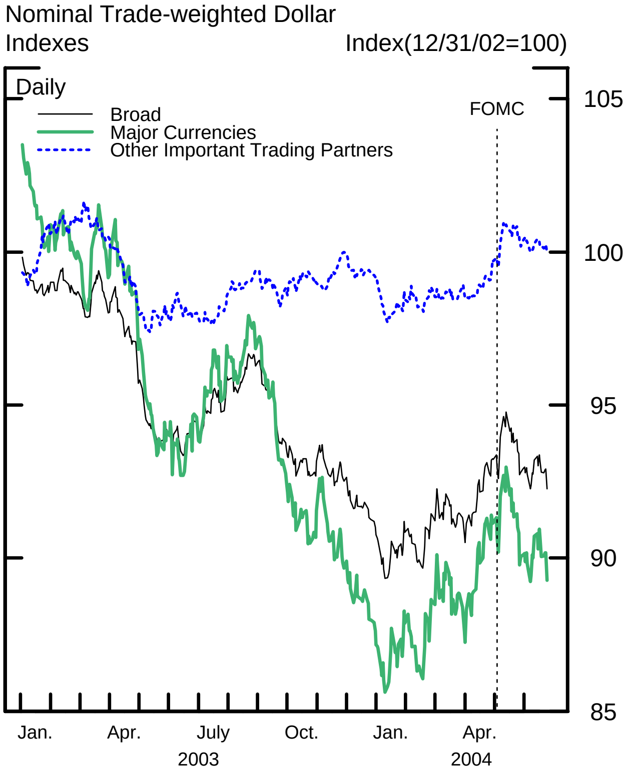
*Yield on synthetic Treasury perpetuity minus Philadelphia Fed ten-year expected inflation.
+ Denotes latest daily observation, June 23, 2004.

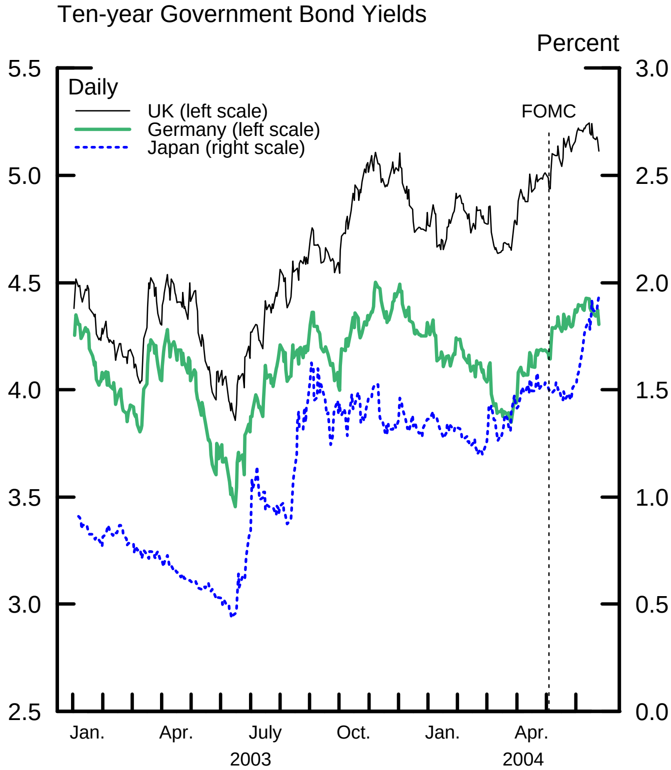
Implied Volatility - S&P 500

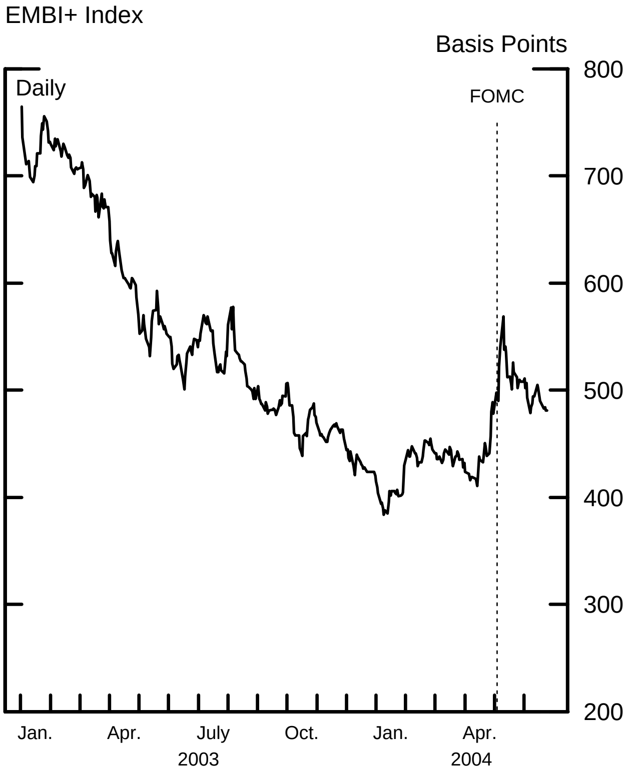


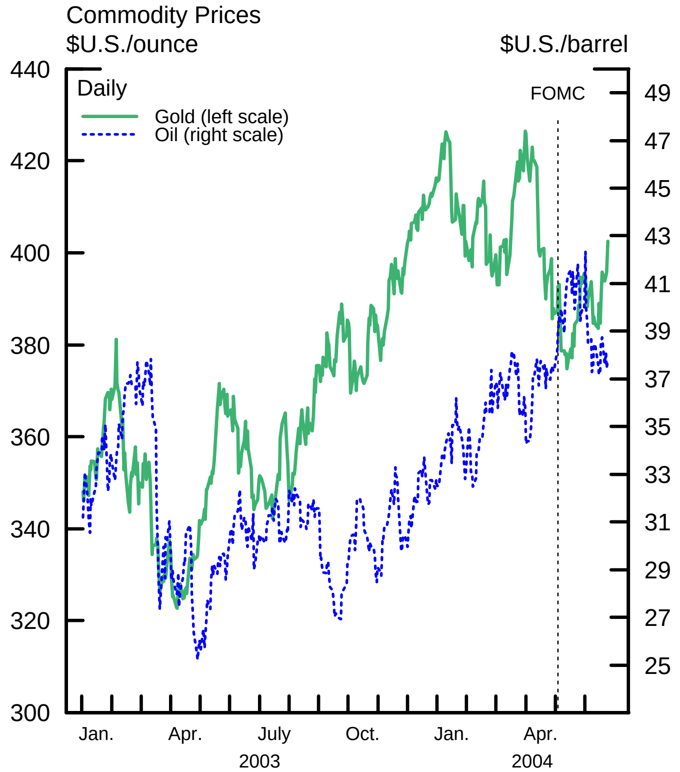
Note: Vertical lines indicate May 3, 2004. Last daily observations are for June 24, 2004.

Chart 3
International Financial Indicators









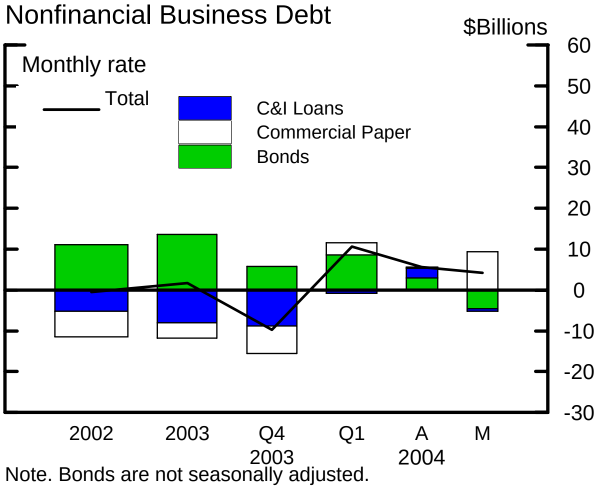
Note: Vertical lines indicate May 4, 2004. Last daily observations are for June 24, 2004.

(5) Business demands for credit have remained subdued in recent months, as internal funds for the most part again have sufficed to finance higher capital expenditures and some inventory restocking. Short-term business debt posted small increases in May and in the first part of June, but corporate bonds outstanding have declined on net as higher interest rates have depressed issuance (Chart 4). Nevertheless, credit seems to be readily available to businesses: Bond risk spreads are relatively narrow, and the May Survey of Terms of Business Lending showed that spreads on C&I loans not made under a previous commitment—which should reflect current loan pricing—declined noticeably in the second quarter. Borrowing by households, while still brisk, appears to be slowing somewhat in the second quarter in response to rising interest rates and an accompanying deceleration in mortgage and consumer debt. With federal debt continuing to expand rapidly, total domestic nonfinancial sector debt is expected to advance at about a 7¼ percent annual rate in the current quarter, more than a percentage point below its first-quarter pace.

(6) M2 surged at a 13 percent annual rate in May after advancing at an almost 9 percent pace in March and April. The brisk expansion of the money stock since late winter followed on the heels of a record contraction in the fourth quarter of 2003 and tepid growth in January. This pattern may have partly reflected the transitory effects of considerable swings in mortgage refinancing activity. Strong gains in nominal income and perhaps portfolio shifts by households out of equities and bonds have buoyed M2. Nonetheless, data for the first half of June suggest much slower growth. For the second quarter as a whole, M2 velocity declined after three quarters of expansion, albeit to a level still appreciably above that suggested by historical relationships between velocity and opportunity costs.

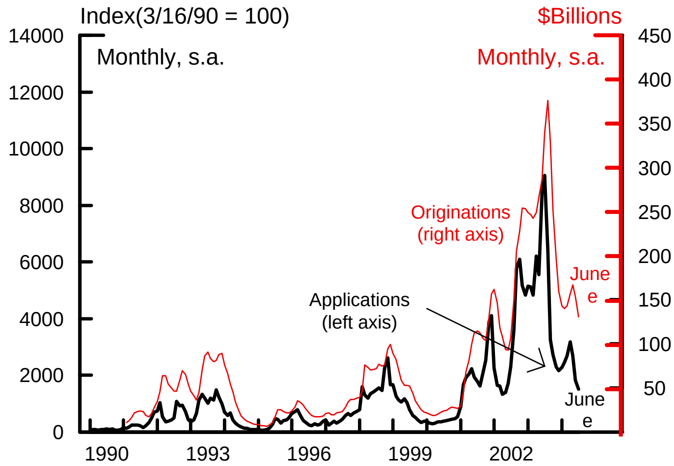
Chart 4
Debt and Money

Changes in Selected Components of Nonfinancial Business Debt



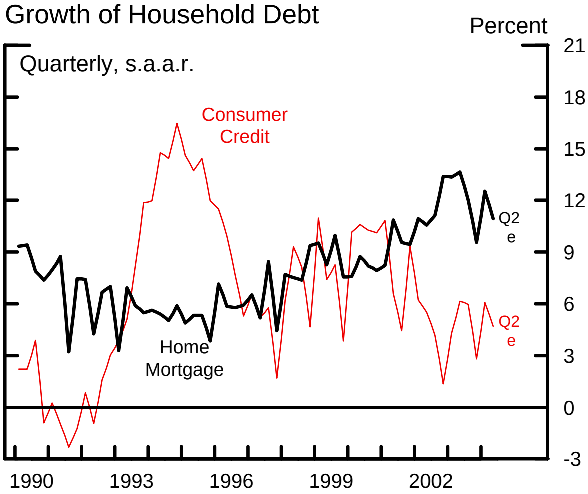
Note. Bonds are not seasonally adjusted.

Mortgage Refinancing Activity



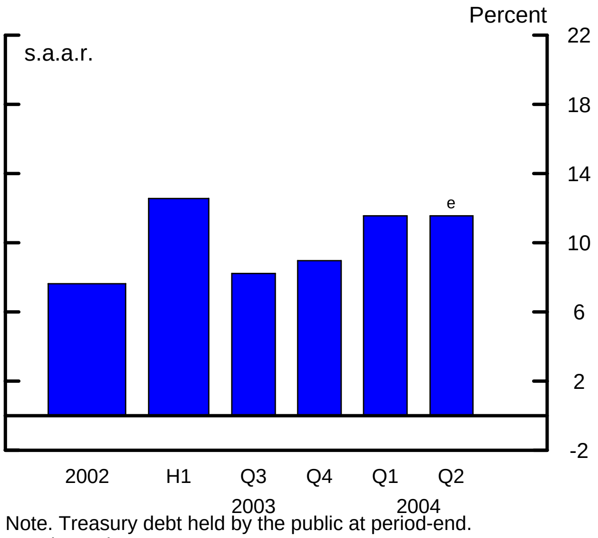
Source. Staff estimates.
e Estimated.

Growth of Household Debt



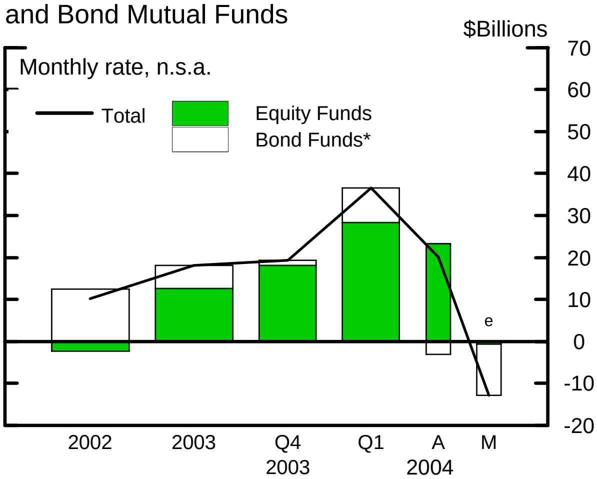
e Estimated.

Growth of Federal Debt



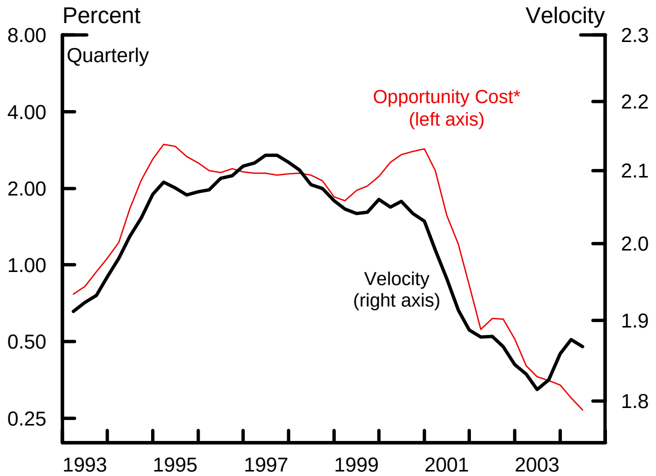
Note. Treasury debt held by the public at period-end.
e Estimated.

Net Inflows to Equity and Bond Mutual Funds



* Includes hybrid funds but excludes reinvested dividends.
e Estimated.

M2 Velocity and Opportunity Cost



Includes estimated data for the second quarter of 2004.
*Two-quarter moving average.

Policy Alternatives

(7) Incoming information over the intermeeting period tended to confirm that the economy is expanding briskly but suggested somewhat higher underlying inflation than had previously been thought. Accordingly, the staff has marked up its inflation projection a bit. In putting together its forecast, the staff has assumed that the FOMC will respond to the higher path of inflation by tightening policy earlier and by more than in the previous Greenbook, with the target federal funds rate increasing 75 basis points by the fourth quarter of this year and 200 basis points by the fourth quarter of next year—still somewhat less than apparently anticipated by market participants. Despite the assumed firming of policy, yields on longer-term Treasury securities remain near current levels as investors come to realize that policy will not need to be tightened quite as rapidly as currently built into market prices, and equity values rise at a pace sufficient to provide a risk-adjusted return comparable to those on fixed-income instruments. Oil prices are anticipated to edge lower over the forecast period—albeit along a trajectory about $3 a barrel above the last projection. Given this backdrop, real GDP expands at a 5 percent annual rate over the second half of 2004 before slowing to 3½ percent in 2005, with the deceleration owing in part to a shift toward fiscal restraint next year and progressively less accommodative monetary policy. The projected growth in real activity exceeds the estimated rate of expansion of the economy's potential, especially this year, and the unemployment rate declines by the end of the forecast horizon to 5¼ percent, a touch above its estimated natural rate. With actual GDP lingering below potential output, import prices decelerating, and oil prices unwinding some of their recent surge, core PCE inflation is projected to edge down to 1½ percent next year. Total PCE inflation is about 2 percent this year and 1¼ percent next year.

Longer-run Scenarios

(8) To analyze strategies and risks for monetary policy, several simulations were conducted using a new version of the FRB-US model that embodies model-consistent expectations in asset pricing. In this variant, financial markets are assumed

to have perfect foresight regarding the future path of the federal funds rate, while the expectations of households and firms are based on statistical forecasts generated from a limited subset of variables, as in the standard version of the FRB-US model.

(9) The baseline for these simulations was prepared by using the FRB-US model (with judgmental adjustments) to extend the staff forecast through the end of the decade. On the supply side, potential output is projected to grow 3½ to 4 percent per year over this period, premised on the underlying assumption that structural multifactor productivity increases at an annual rate of about 1¾ percent. The NAIRU is assumed to hold at 5 percent. As for aggregate demand, the household saving rate is expected to rise gradually back toward its historical norm, while the unified federal budget deficit increases from 2¼ percent of nominal GDP in 2005 to nearly 2¾ percent in 2010. Despite real depreciation of the foreign exchange value of the dollar of 4 percent per year, the current account deficit is projected to widen further, reaching 7 percent of nominal GDP by the end of the decade. The stance of monetary policy is assumed to adjust in response to these supply and demand factors so as to keep core PCE inflation close to 1½ percent throughout the decade and to facilitate the return of the unemployment rate to its natural rate. In particular, the nominal federal funds rate rises to 4¼ percent as the real federal funds rate settles at a long-run equilibrium level of about 2¾ percent.

(10) The first simulation determines an optimal path for the federal funds rate from mid-2004 forward assuming that policymakers have an equal distaste for deviations in unemployment from its natural rate, deviations in inflation from a long-run goal, and changes in the federal funds rate.[3] This exercise is similar in spirit to the "policymaker perfect foresight" simulations that have appeared in previous Bluebooks, but the assumption that asset prices are based on model-consistent

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[3] More precisely, the federal funds rate path is chosen to minimize the equally weighted sum of squared deviations of unemployment from its natural rate, squared deviations of core PCE inflation from target, and squared changes in the funds rate. The last term prevents the optimal federal funds rate from being much more volatile in the simulation than observed in the historical record.

expectations implies that policymakers are not able to fool investors systematically. The long-run objective for core PCE inflation is taken to be 1½ percent, the same as in the Greenbook extension. As shown in the upper panel of Chart 5, the optimal funds rate follows a path similar to that built into the baseline, resulting in similar trajectories for inflation and the unemployment rate as well.[4]

(11) Chart 6 displays results under alternative assumptions about the inflation objective, with 1½ percent serving as the benchmark. Under an objective of 1 percent, the optimal policy implies a more rapid increase in the funds rate; by mid-2005, the funds rate exceeds the optimum path for the benchmark case by about 75 basis points. Because households and firms (unlike investors) only gradually revise their beliefs about long-run policy objectives, rapid disinflation would require an immediate and sizable opening of an output gap. The optimal policy avoids such an extreme and instead pursues a gradual decline in inflation and a small and persistent rise in unemployment.[5] With an inflation objective of 2 percent, the optimal tightening in policy this year and next is attenuated. The nominal funds rate eventually exceeds that of the baseline, but the real funds rate remains lower—and a bit below its equilibrium value—through 2010, fostering a gradual pickup in inflation. The unemployment rate declines somewhat more quickly than in the benchmark case and then remains below the NAIRU throughout the remainder of the decade.

Short-Run Policy Alternatives

(12) Table 1 presents three alternatives for near-term policy for the Committee's consideration, including drafts of language for the announcement. Under Alternative A, the existing stance of policy would be maintained at this meeting. Alternative B would raise the target for the federal funds rate by 25 basis

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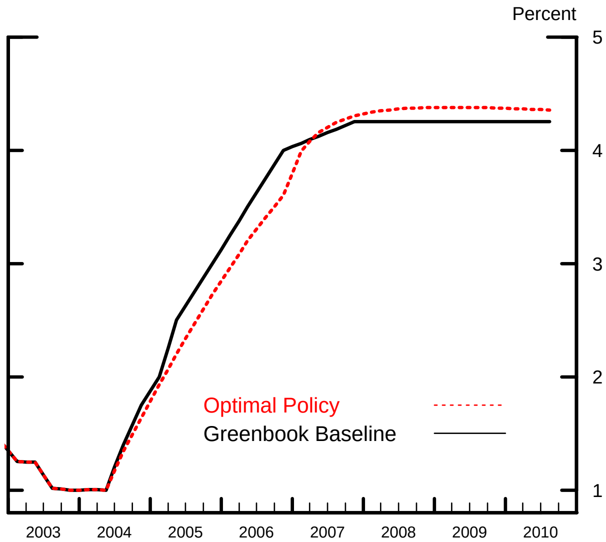
[4] As a point of reference, the optimal policy derived in the standard version of FRB-US (which was referred to as "policymaker perfect foresight" in previous Bluebooks) has broadly similar contours.

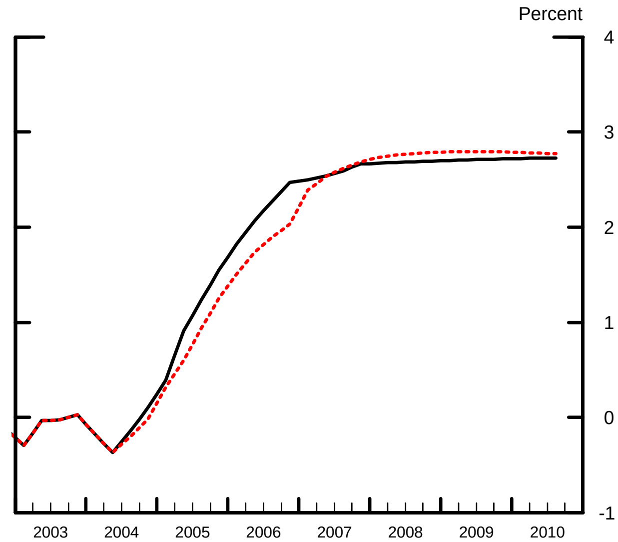
[5] In this simulation, the inflation rate attains its objective by around the year 2015.

Chart 5
Optimal Policy for the Benchmark Inflation Objective

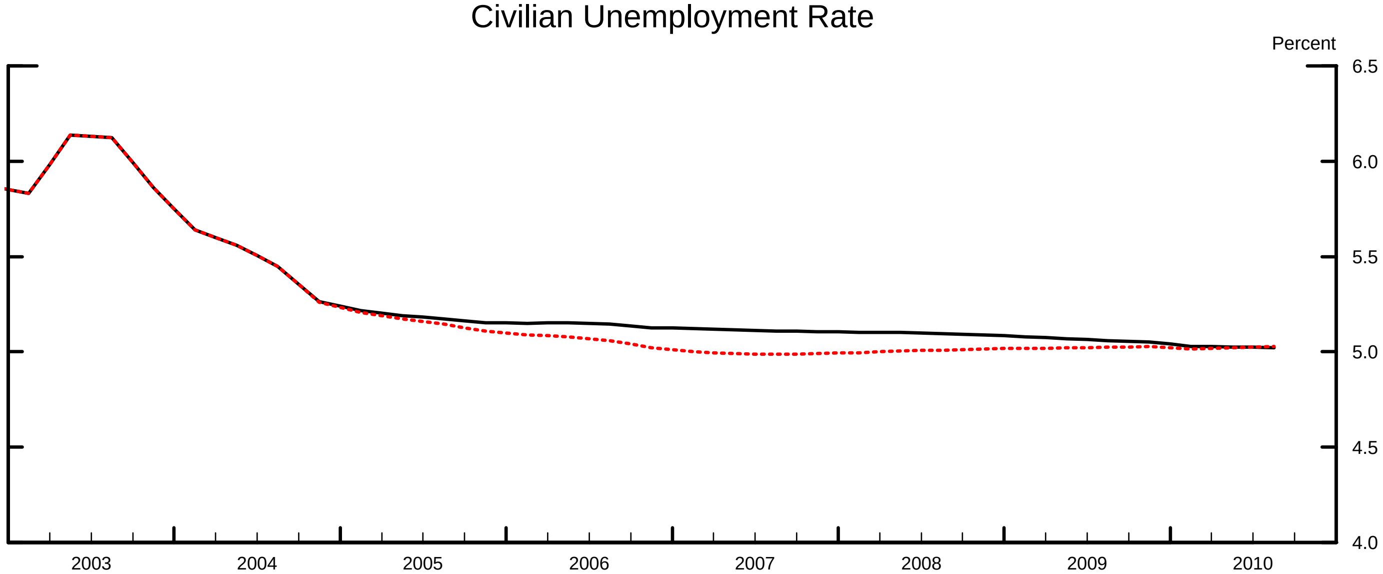
Nominal Federal Funds Rate



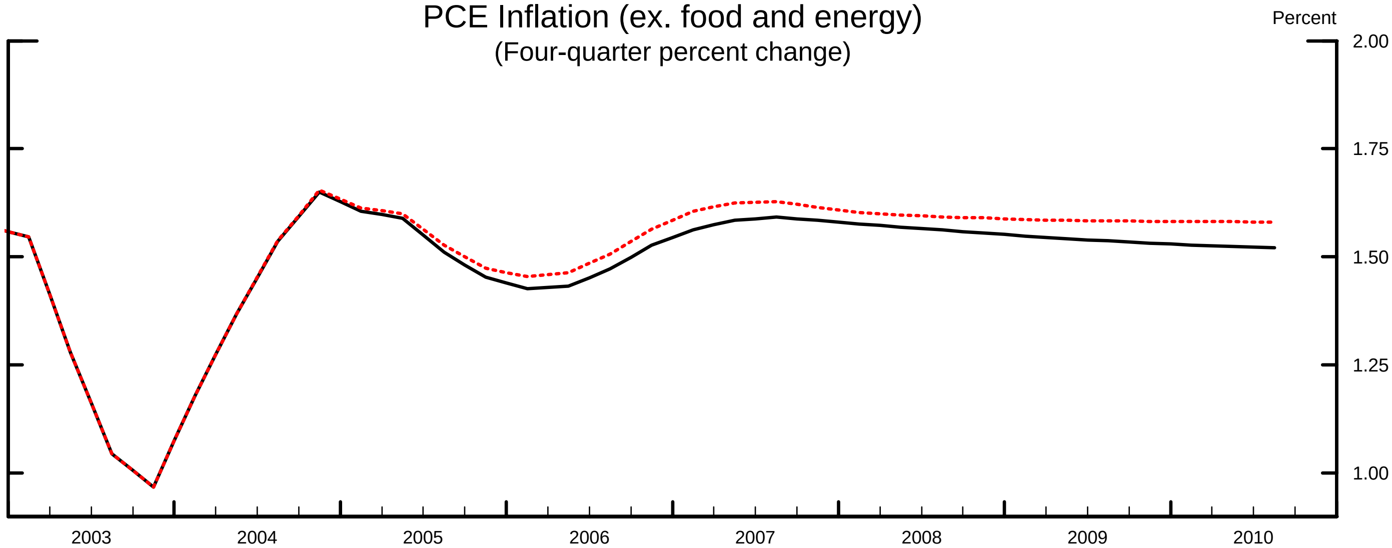
Real Federal Funds Rate[1]



Civilian Unemployment Rate



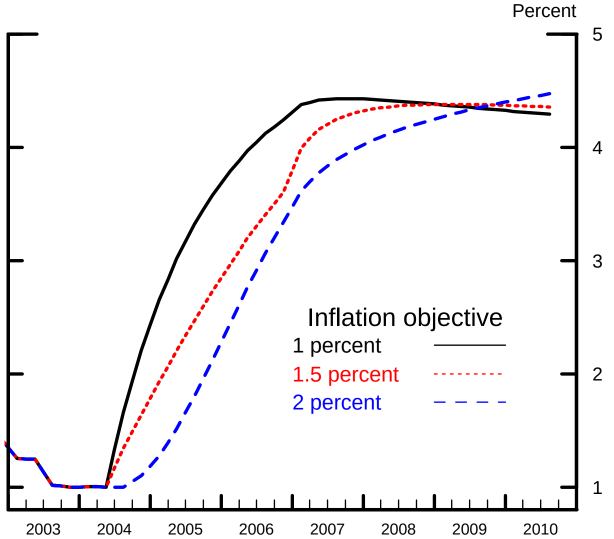
PCE Inflation (ex. food and energy)
(Four-quarter percent change)



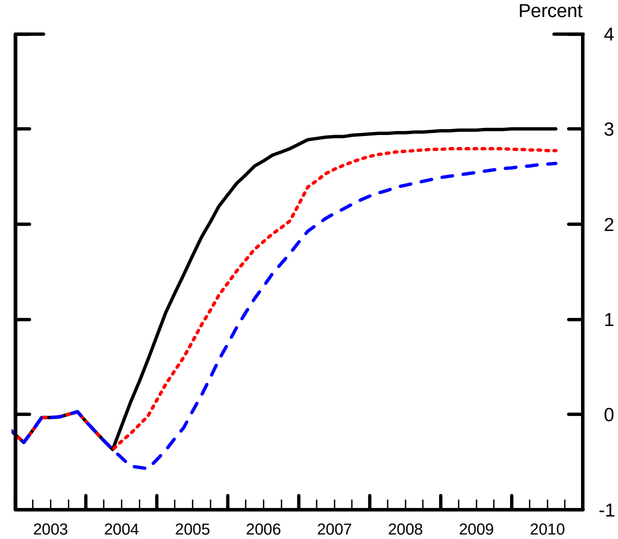
1. The real federal funds rate is calculated as the quarterly average nominal funds rate minus the four-quarter lagged core PCE inflation rate as a proxy for inflation expectations.

Chart 6
Optimal Policy with Alternative Inflation Objectives

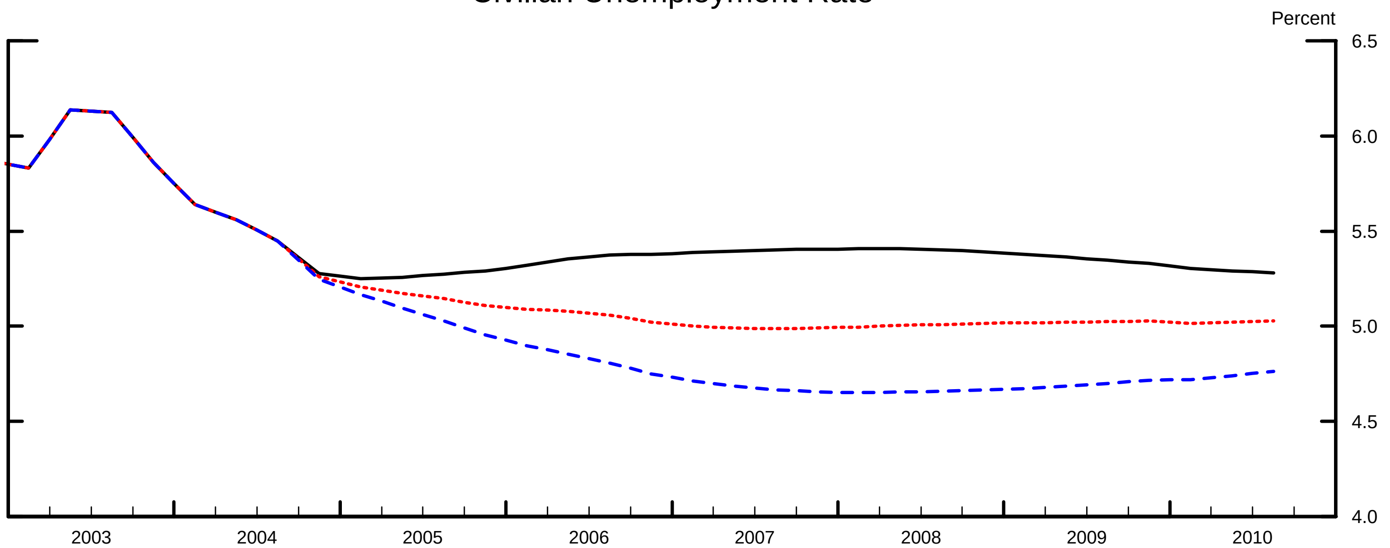
Nominal Federal Funds Rate



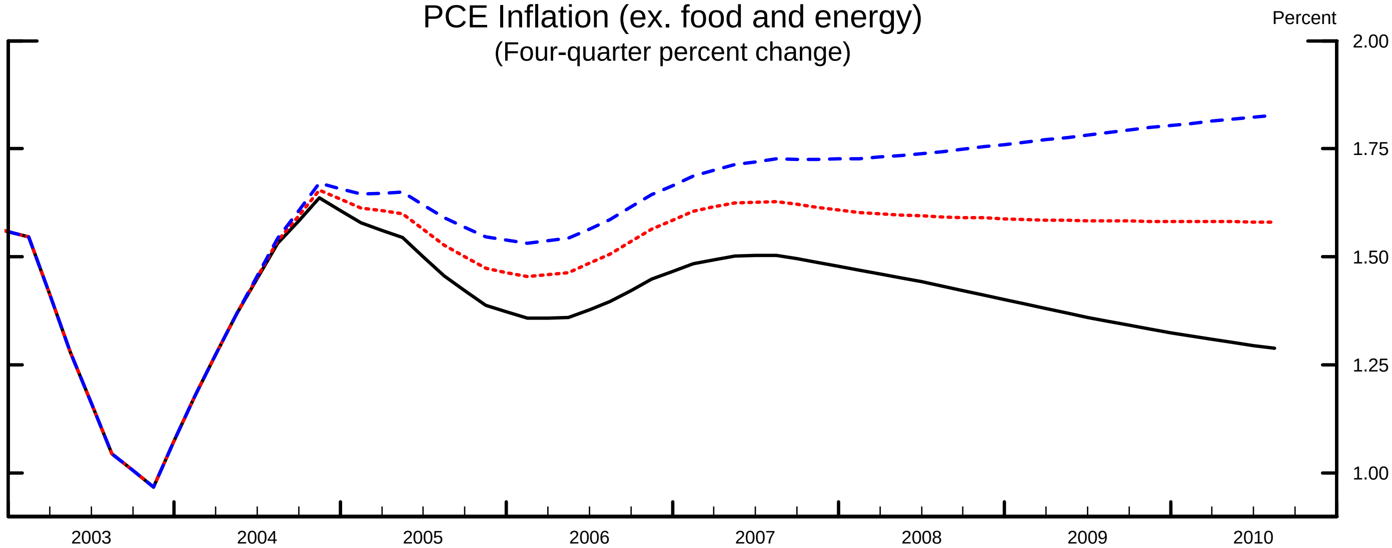
Real Federal Funds Rate[1]



Civilian Unemployment Rate



PCE Inflation (ex. food and energy)
(Four-quarter percent change)



1. The real federal funds rate is calculated as the quarterly average nominal funds rate minus the four-quarter lagged core PCE inflation rate as a proxy for inflation expectations.

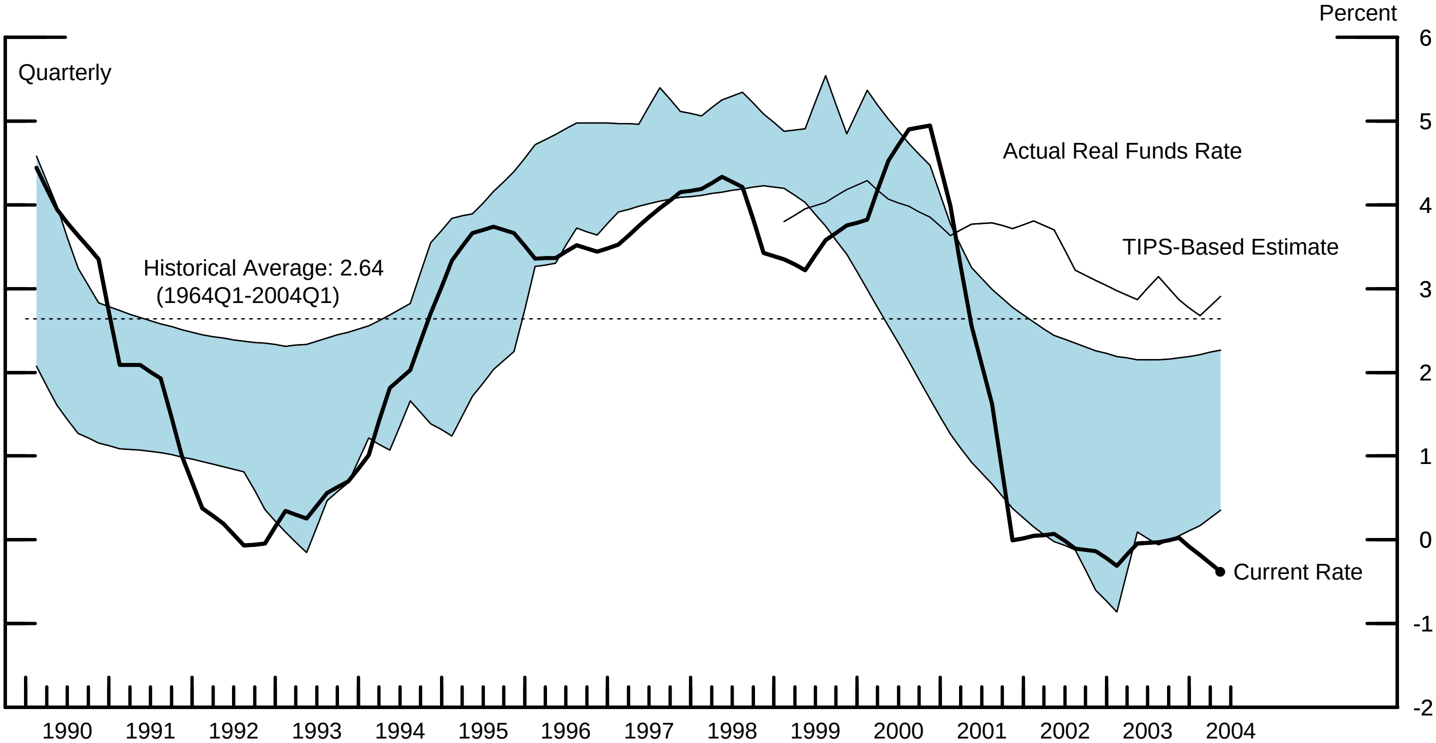
Table 1: FOMC Statement Alternatives for the June Bluebook				
	May FOMC	**Alternative A**	**Alternative B**	**Alternative C**
Policy Decision	1. The Federal Open Market Committee decided today to keep its target for the federal funds rate at 1 percent.	[Unchanged]	The Federal Open Market Committee decided today to raise its target for the federal funds rate to 1¼ percent.	The Federal Open Market Committee decided today to raise its target for the federal funds rate to 1½ percent.
Rationale	2. The Committee continues to believe that an accommodative stance of monetary policy, coupled with robust underlying growth in productivity, is providing important ongoing support to economic activity.	[Unchanged]	The Committee believes that, even after this action, the stance of monetary policy remains accommodative and, coupled with robust underlying growth in productivity, is providing ongoing support to economic activity.	The Committee believes that, even after this action, the stance of monetary policy remains accommodative and, coupled with robust underlying growth in productivity, is providing ongoing support to economic activity.
	3. The evidence accumulated over the intermeeting period indicates that output is continuing to expand at a solid rate and hiring appears to have picked up.	The evidence accumulated over the intermeeting period indicates that output is continuing to expand at a solid rate and hiring has picked up.	The evidence accumulated over the intermeeting period indicates that output is continuing to expand at a solid rate and hiring has picked up.	The evidence accumulated over the intermeeting period indicates that, with output expanding at a solid rate and hiring having picked up, the economic expansion is now well established.
	4. Although incoming inflation data have moved somewhat higher, long-term inflation expectations appear to have remained well contained.	Although incoming inflation data are somewhat elevated, a portion of the increase in recent months presumably has been due to transitory factors.	Although incoming inflation data are somewhat elevated, a portion of the increase in recent months has been due to transitory factors.	Incoming inflation data are somewhat elevated, and long-term inflation expectations have shown some tendency to edge higher.
Assessment of Risks	5. The Committee perceives that the upside and downside risks to the attainment of sustainable growth for the next few quarters are roughly equal.	The Committee perceives that the upside and downside risks to the attainment of both sustainable growth and price stability for the next few quarters are roughly equal.	The Committee perceives that the upside and downside risks to the attainment of both sustainable growth and price stability for the next few quarters are roughly equal.	The Committee perceives that the upside and downside risks to the attainment of sustainable growth for the next few quarters are roughly equal.
	6. Similarly, the risks to the goal of price stability have moved into balance.	[Covered above]	[Covered above]	However, the upside risks to the goal of price stability now appear to outweigh the downside risks.
	7. At this juncture, with inflation low and resource use slack, the Committee believes that policy accommodation can be removed at a pace that is likely to be measured.	With underlying inflation still relatively low and resource use slack, the Committee believes that policy accommodation can be removed at a pace that is likely to be measured.	With underlying inflation still expected to be relatively low, the Committee judges the outlook to be such that policy accommodation can be removed at a pace that is likely to be measured. Nonetheless, the Committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability so as to foster maximum sustainable economic growth.	[None]

points to 1¼ percent. Alternative C would boost the funds rate by 50 basis points to 1½ percent. In these alternatives, the Committee could update its description of the current situation in part by indicating more definitively than previously that *"hiring has picked up"* and by characterizing recent inflation developments according to its interpretation of recent events.

(13) If the Committee finds the staff analysis in the Greenbook compelling and the forecasted outcome about the best available in current circumstances, it might implement the 25 basis point firming of **Alternative B**. Any earlier concerns the Committee may have harbored about the sustainability of the expansion probably have been assuaged by recent economic indicators, including the past few employment releases and anecdotal information such as that contained in the June Beigebook. Meanwhile, inflation has run on the high side of late—above both staff projections made early this year and the Committee's expectations for 2004 revealed in the central tendency projections published in the February Monetary Policy Report. Moreover, according to a wide range of estimates, the current real federal funds rate is distinctly below its likely equilibrium value (Chart 7) and also lies below the prescriptions from a variety of policy rules (Chart 8). In view of these considerations, the Committee may feel that the time has come to begin returning the real federal funds rate to a more neutral level. At the same time, the Committee might prefer to start the process gradually with a 25-basis-point move at this meeting so as to promote an orderly transition to a tightening cycle in financial markets, particularly given the widespread interpretation in markets of the Committee's "measured" language. Such a modest move would also be favored if the Committee, like the staff, sees underlying inflation as still low and a considerable degree of slack remaining in resource markets.

(14) In announcing implementation of Alternative B, the Committee would presumably want to modify its existing indication that the accommodative stance of policy is providing *"important"* support to economic activity but could retain the associated point regarding the impetus given by productivity. One way to accomplish this is to say that *". . . even after this action, the stance of monetary policy remains accommodative*

Chart 7
Actual Real Federal Funds Rate and
Range of Estimated Equilibrium Real Rates



Note: The shaded range represents the maximum and the minimum values each quarter of four estimates of the equilibrium real federal funds rate based on a statistical filter and the FRB/US model. Real federal funds rates employ a four-quarter moving average of core PCE inflation as a proxy for inflation expectations, with the staff projection used for 2004Q2.

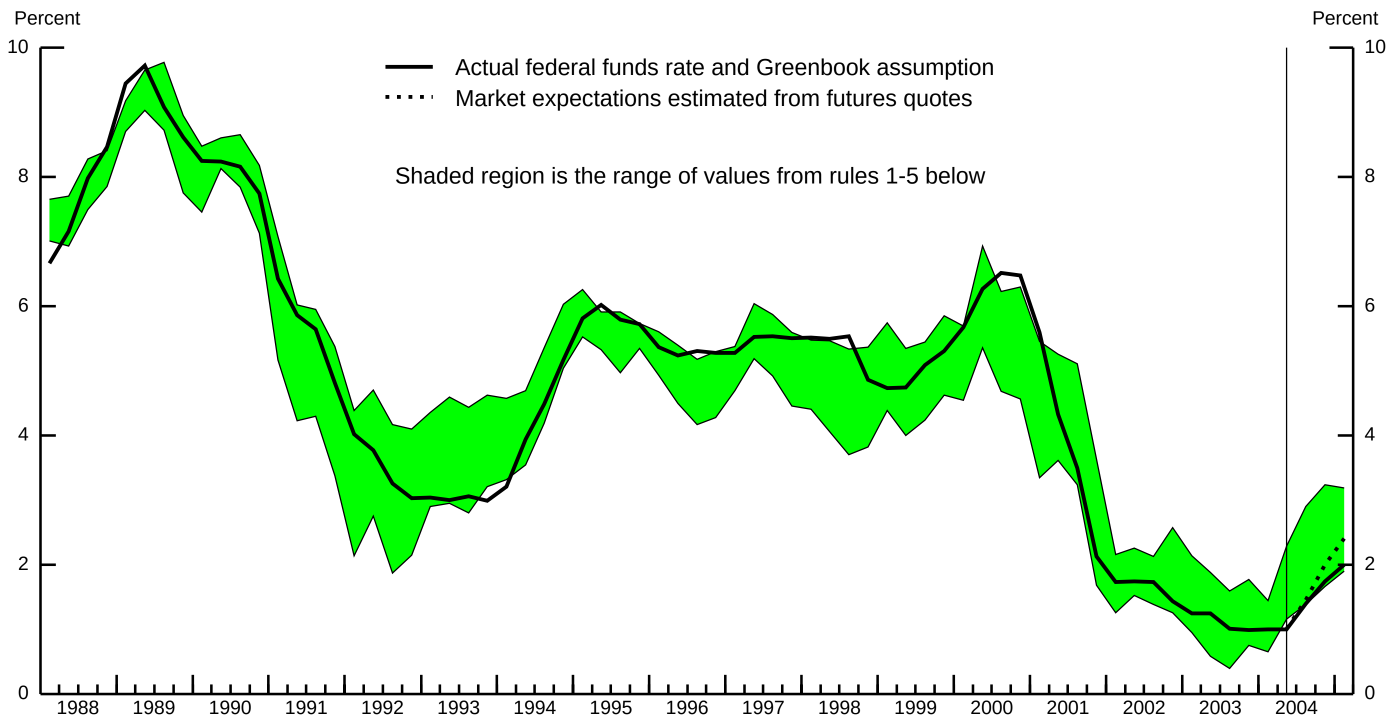
Equilibrium Real Funds Rate Estimates (Percent)

	2002	2003	2004Q1	2004Q2
Statistical Filter				
- Two-sided:				
Based on historical data and the staff forecast	0.0	0.2	0.4	0.4
May Bluebook	*-0.2*	*0.0*	*0.2*	*0.2*
- One-sided:				
Based on historical data*	0.3	-0.2	0.2	0.4
May Bluebook	*0.0*	*-0.4*	*0.0*	--
FRB/US Model				
- Two-sided:				
Based on historical data and the staff forecast	2.4	2.2	2.2	2.3
May Bluebook	*2.4*	*2.1*	*2.1*	*2.1*
- One-sided:				
Based on historical data**	1.9	1.0	1.3	1.6
May Bluebook	*1.9*	*0.9*	*1.2*	*1.5*
Treasury Inflation-Protected Securities	3.5	3.0	2.7	2.9
May Bluebook	*3.5*	*3.0*	*2.7*	*2.9*

* Also employs the staff projection for the second and third quarters of 2004.
** Also employs the staff projection for the second quarter of 2004.

Chart 8

Actual and Assumed Federal Funds Rate and Range of Values from Policy Rules and Futures Markets



Values of the Federal Funds Rate from Policy Rules and Futures Markets

	2004 Q1	2004 Q2	2004 Q3	2004 Q4	2005 Q1
Outcome-based Rules					
1. Baseline Taylor	1.45	2.29	2.90	3.24	3.19
2. Aggressive Taylor	0.66	1.50	2.48	2.98	2.96
3. Estimated	1.01	1.28	1.53	2.15	2.53
Forecast-based Rules					
4. Estimated with Greenbook forecasts	1.16	1.17	1.39	1.69	1.90
5. Estimated with FOMC forecasts	1.12	1.17	1.72	1.67	1.99
6. First-difference rule*	1.24	1.16			
From Financial Markets					
7. Estimated TIPS-based rule*	1.24	1.48**			
Memo: Expected federal funds rate derived from futures		1.01	1.46	2.00	2.41
Memo: Greenbook assumption	1.00	1.00	1.40	1.75	2.00

* Not included in the shaded region in the figure.
** Computed using average TIPS and nominal Treasury yields to date

Note: Rule prescriptions for 2004Q2 through 2005Q1 are calculated using Greenbook projections for inflation and the output gap (or unemployment gap). For rules that contain the lagged funds rate, the rule’s previous prescription for the funds rate is used for 2004Q3 through 2005Q1. It is assumed that there is no feedback from the rule prescriptions to the Greenbook projections through 2005Q1.

Rules Chart: Explanatory Notes

In all of the rules below, i_t denotes the federal funds rate, π_t the staff estimate at date t of trailing four-quarter core PCE inflation, $(y_t$-$y_t*)$ the staff estimate (at date t) of the output gap, i_{t-1} the lagged federal funds rate, ε_{t-1} the residual from the rule's prescription the previous quarter, $(y_{t+3|t}$-$y_{t+3|t}^{*})$ the staff's three-quarter-ahead forecast of the output gap, $(\Delta\, y_{t+3|t}$-$\Delta\, y_{t+3|t}^{*})$ the staff's forecast of output growth less potential output growth three quarters ahead, $\pi_{t+3|t}$ a three-quarter-ahead forecast of inflation, and $(u_{t+3|t}$-$u_{t+3|t}^{*})$ a three-quarter-ahead forecast of the unemployment gap. Data are quarterly averages taken from the Greenbook and staff memoranda closest to the middle of each quarter, unless otherwise noted.

Rule	Specification	Root-mean-square error 1988:1-2004:1	Root-mean-square error 2001:1-2004:1
Outcome-based			
1. Baseline Taylor Coefficients are benchmark values, not estimated.	$i_t = 2 + \pi_t + 0.5(y_t\text{-}y_t^{*}) + 0.5(\pi_t\text{-}2)$	.92	.87
2. Aggressive Taylor Coefficients are benchmark values, not estimated.	$i_t = 2 + \pi_t + (y_t\text{-}y_t^{*}) + 0.5(\pi_t\text{-}2)$	.74	.75
3. Estimated Outcome-based Rule includes both lagged interest rate and serial correlation in residual.	$i_t = 0.55i_{t-1} + 0.45\ [1.17 + 0.96(y_t\text{-}y_t^{*}) + 1.45\pi_t] + 0.42\varepsilon_{t-1}$	.25	.27
Forecast-based			
4. Estimated Greenbook Forecast-based Rule includes both lagged interest rate and serial correlation in residual.	$i_t = 0.72i_{t-1} + 0.28\ [0.65 + 1.05(y_{t+3\|t}\text{-}y_{t+3\|t}^{*}) + 1.57\pi_{t+3\|t}] + 0.36\varepsilon_{t-1}$	.26	.28
5. Estimated FOMC Forecast-based Unemployment and inflation forecasts are from semiannual "central tendency" of FOMC forecasts, interpolated if necessary to yield 3-qtr-ahead values; u_t* forecast is from staff memoranda. Inflation forecasts are adjusted to core PCE deflator basis. Rule is estimated at semiannual frequency, and projected forward using Greenbook forecasts.	$i_t = 0.49i_{t-2} + 0.51\ [0.26 - 2.10(u_{t+3\|t}\text{-}u_{t+3\|t}^{*}) + 1.60\pi_{t+3\|t}]$	.45	.72
6. First-difference Rule Coefficients are benchmark values, not estimated.	$i_t = i_{t-1} + 0.5(\Delta\, y_{t+3\|t}\text{-}\Delta\, y_{t+3\|t}^{*}) + 0.5(\pi_{t+3\|t}\text{-}2)$	.87	.32
From Financial Markets			
7. Estimated TIPS-based $\pi_{comp5\|t}$ denotes the time-t difference between 5-yr nominal Treasury yields and TIPS. Sample begins in 1999 due to TIPS volatility in 1997-8.	$i_t = 0.96i_{t-1} + [-1.31 + 0.76\pi_{comp5\|t}]$	.44#	.48

RMSE calculated for 1999:1-2004:1.

and, coupled with robust underlying growth in productivity, is providing ongoing support to economic activity." Assuming that the Committee agreed on a modest move toward restraint in part because it viewed inflation prospects as relatively benign, the statement could note that, *"although incoming inflation data are somewhat elevated, a portion of the increase in recent months presumably has been due to transitory factors."* Under this alternative, the Committee would probably again see the risks to sustainable growth as balanced if its outlook for growth did not differ much from that at the May meeting. Similarly, the Committee might continue to view the risks to price stability as balanced in light of its step to begin removing policy accommodation. In view of the recent inflation surprises, though, as well as the relatively small adjustment to the nominal funds rate under this alternative in comparison with the acceleration in prices that has already occurred, a case could be made for characterizing the risks to inflation as tilted to the upside and for jettisoning the language that policy accommodation could be removed at a *"measured"* pace. However, if the Committee sees the risks as balanced, it might prefer to guard against an exaggerated market reaction by reaffirming its view that, given relatively low underlying inflation and continued resource slack, it need not tighten policy aggressively. The Committee could retain the *"measured"* language while emphasizing the conditional nature of its expectation for policy and underscoring its commitment to price stability by saying, *"With underlying inflation still expected to be relatively low, the Committee judges the outlook to be such that policy accommodation can be removed at a pace that is likely to be measured. Nonetheless, the Committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability so as to foster maximum sustainable economic growth."*

(15) As noted above, market participants appear to have read the incoming data, together with policymakers' public statements, as implying a 25-basis-point firming at this meeting along with an assessment of balanced risks for growth and inflation and retention of *"measured"* or similar language. A number of other indicators, such as information on the trading positions of market participants, as well as anecdotal information, suggest that most market participants are well prepared for a

commencement of tightening.[6] Accordingly, the immediate market reaction to implementation of this alternative would likely be rather subdued, with rates perhaps increasing slightly in response to the inclusion of the proposed final sentence. If, however, the Committee shifted to an assessment that the risks to inflation were tilted to the upside, or if it dropped the *"measured"* phrase, both fixed-income and equity markets would most likely sell off.

(16) The Committee might view the largely unanticipated step-up in inflation in recent months that has yet to be reversed as vitiating its previous conditional expectation that policy moves could be *"measured."* If so, a 50-basis-point increase in the federal funds rate, as in **Alternative C**, might be favored if Committee members doubt that inflation will be restrained by slack in the economy to the extent forecast by the staff, either because of skepticism about the output gap framework or concern that the economy is closer to potential than estimated by the staff, as in the "Less Room to Grow" scenario in the Greenbook. Alternatively, members might favor this option if they put greater odds than the staff does on the possibility of a sizable pass-through of higher energy and import prices to the general price level. Also, a relatively large policy move could be viewed as necessary at this point in part to reduce the potential for a sustained increase in inflation expectations. Indeed, the Committee may be troubled that longer-term inflation expectations—even before their recent uptick—seemed to embed an anticipation that prices would increase at a rate faster than that consistent with long-run price stability, perhaps indicating that there was some uncertainty among the public about the Federal Reserve's objective. If the Committee's goal is to keep the bias-adjusted consumer price level unchanged on average, roughly consistent with measured core PCE inflation of 1 percent, the simulations reported earlier suggest that a somewhat firmer near-term path of policy than in the baseline would be desirable.

[6] See "Market Preparedness for Potential Policy Tightening," distributed to the Committee on June 23, 2004.

(17) In contrast to the language proposed for Alternative B, the announcement accompanying a 50-basis-point hike could indicate that *"incoming inflation data are somewhat elevated, and long-term inflation expectations have shown some tendency to edge higher,"* as part of the rationale for the action. As in the other alternatives, the Committee presumably would choose under this alternative to state that the risks to growth were balanced if its outlook for real GDP is roughly in line with the Greenbook. In principle, it could also retain an assessment that the risks to price stability were balanced in view of the restraining effects of the relatively large policy move. However, if the Committee were sufficiently worried about inflation to select such an aggressive policy at this time, it might well see the risks to inflation as now skewed to the upside. With regard to the final sentence of the existing risk assessment, a 50-basis-point move would seem to call for deletion of the *"measured"* language.

(18) The combination of policy action and explanation proposed under Alternative C would come as a considerable shock to market participants. Most investors appear to view the Committee's *"measured"* language, in the context of the recent data as well as comments from policymakers, as essentially ruling out such an opening move and accordingly have positioned for a 25-basis-point increase. The accompanying indication that the inflation risks were tilted to the upside would reinforce the sense that the trajectory of policy tightening would be significantly steeper than previously anticipated. In all likelihood under this alternative, market interest rates would rise across the yield curve, stock prices would drop sharply, and the foreign exchange value of the dollar would increase.

(19) The Committee might be attracted to the unchanged policy stance of **Alternative A** if it thinks that the recent increase in inflation owes largely to transient factors and fears that the pace of economic growth might prove insufficient to work down resource slack should policy begin to tighten at this time. In the staff forecast, which envisions tightening sometime soon, output remains a little below its potential and the unemployment rate comes to rest ¼ percentage point above the staff's estimated NAIRU in the fourth quarter of 2005. The Committee might be concerned

that growth could fall short of even this projection, given the prospective shift in fiscal policy toward restraint, the possibility that the current slowdown in consumption growth could persist, and the risk that investment spending will not accelerate to the degree necessary to offset slowing growth in household spending in an environment of heightened geopolitical tensions. The easier financial market conditions that would accompany implementation of this alternative would tend to support interest-sensitive spending, such as housing, consumer durables, and business investment, and contribute to a stronger pace of economic growth, especially later this year and during 2005. Moreover, the simulations reported earlier could be interpreted as implying that pursuing a somewhat stronger path for output might not involve much cost in terms of higher inflation. Indeed, the Committee might prefer to see inflation in the future center around 2 percent, rather than 1½ percent as in the baseline, in order to provide a significant inflation buffer against the zero bound to nominal interest rates.

(20) As indicated in Table 1, the announcement accompanying a decision to leave rates unchanged could note that *"although incoming inflation data are somewhat elevated, a portion of the increase in recent months presumably has been due to transitory factors."* The Committee could retain its reference to the *"measured"* removal of policy accommodation by indicating that *"With underlying inflation still relatively low and resource use slack, the Committee believes that policy accommodation can be removed at a pace that is likely to be measured."* If the Committee were to select Alternative A, presumably it would also retain the judgment it reached at the May meeting that the risks to both sustainable growth and price stability are balanced. Because market participants are virtually certain of a tightening of policy at this meeting of 25 basis points, adoption of this alternative would come as a considerable surprise and might trigger a sizable drop in short-term interest rates, a sharp rally in bond and stock prices, and some depreciation in the foreign exchange value of the dollar—provided that the Committee's announcement bolstered investors' confidence that inflation was unlikely to be a problem. These market reactions could be considerably more adverse, however, if market participants instead perceived that monetary policy was falling "behind the curve."

Money and Debt Forecasts

(21) Under the Greenbook projection, M2 is expected to decelerate sharply to about a 3 percent annual pace over the May-to-December period. This growth rate is 1½ percentage points slower than projected in the April Bluebook, primarily reflecting the higher path of interest rates in this projection. Households are expected to shift the composition of their portfolios noticeably toward market instruments at the expense of monetary assets later in the year, as rising interest rates significantly boost the opportunity cost of holding money from current record lows. The lagged effects on deposit balances of the recent slowdown in mortgage refinancing activity accentuates the deceleration in money growth. Domestic nonfinancial sector debt is forecast to expand at a 7¼ percent pace over the second half of this year. Household debt growth is expected to slow slightly, as residential investment and refinancing activity increasingly respond to the higher level of mortgage rates. Business borrowing should gradually pick up, though from a very low level, as capital expenditures rise faster than internal funds and as inventory investment rises. Given the large projected budget deficit, federal debt growth is forecast to remain brisk. State and local debt growth is likely to decline from its recent pace, as interest rates rise and municipal budget positions improve.

M2 Growth Under Alternative Policy Actions

		No change	Tighten 25 bp	Tighten 50 bp	Greenbook Forecast*
	Monthly Growth Rates				
	Jan-04	1.1	1.1	1.1	1.1
	Feb-04	9.6	9.6	9.6	9.6
	Mar-04	8.9	8.9	8.9	8.9
	Apr-04	8.8	8.8	8.8	8.8
	May-04	13.1	13.1	13.1	13.1
	Jun-04	2.8	2.8	2.8	2.8
	Jul-04	4.2	3.8	3.4	3.8
	Aug-04	4.5	3.7	2.9	3.5
	Sep-04	4.4	3.6	2.8	3.0
	Oct-04	4.9	4.2	3.5	3.0
	Nov-04	4.5	4.0	3.6	2.5
	Dec-04	4.3	3.9	3.5	2.5
	Quarterly Growth Rates				
	2003 Q4	-1.5	-1.5	-1.5	-1.5
	2004 Q1	3.2	3.2	3.2	3.2
	2004 Q2	9.3	9.3	9.3	9.3
	2004 Q3	5.0	4.6	4.2	4.5
	2004 Q4	4.6	4.0	3.3	2.9
	Annual Growth Rates				
	2002	6.7	6.7	6.7	6.7
	2003	5.2	5.2	5.2	5.2
	2004	5.6	5.3	5.1	5.0
Growth From	To				
2003 Q4	Jun-04	6.3	6.3	6.3	6.3
2003 Q4	Sep-04	5.8	5.5	5.3	5.5
2003 Q4	Dec-04	5.5	5.2	5.0	4.8
Dec-03	May-04	8.4	8.4	8.4	8.4
May-04	Dec-04	4.3	3.8	3.2	3.0
Jun-04	Dec-04	4.5	3.9	3.3	3.1

* This forecast is consistent with nominal GDP and interest rates in the Greenbook forecast.

Directive and Balance-of-Risks Language

(22) Draft language for the directive and draft risk assessments identical to those presented in Table 1 are provided below.

(1) Directive Wording

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with maintaining/INCREASING/REDUCING the federal funds rate at/TO an average of around ________ ¼ percent.

(2) Risk Assessments

(A) The Committee perceives that the upside and downside risks to the attainment of both sustainable growth and price stability for the next few quarters are roughly equal. With underlying inflation still relatively low and resource use slack, the Committee believes that policy accommodation can be removed at a pace that is likely to be measured.

(B) The Committee perceives that the upside and downside risks to the attainment of both sustainable growth and price stability for the next few quarters are roughly equal. With underlying inflation still expected to be relatively low, the Committee judges the outlook to be such that policy accommodation can be removed at a pace that is likely to be measured. Nonetheless, the Committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability so as to foster maximum sustainable economic growth.

(C) The Committee perceives that the upside and downside risks to the attainment of sustainable growth for the next few quarters are roughly equal. However, the upside risks to the goal of price stability now appear to outweigh the downside risks.

SELECTED INTEREST RATES
(percent)

	Short-term						Long-term									
	Federal funds	Treasury bills secondary market			CDs secondary market	Comm. paper	Off-the-run Treasury yields				Indexed yields		Moody's Baa	Municipal Bond Buyer	Conventional home mortgages primary market	
		4-week	3-month	6-month	3-month	1-month	2-year	5-year	10-year	30-year	5-year	10-year			Fixed-rate	ARM
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
03 -- High	1.45	1.26	1.22	1.28	1.32	1.28	2.11	3.60	4.80	5.61	1.84	2.48	7.48	5.50	6.44	4.06
-- Low	0.86	0.75	0.81	0.82	0.93	0.91	1.09	2.06	3.29	4.37	0.77	1.56	6.01	4.78	5.21	3.45
04 -- High	1.08	1.10	1.42	1.78	1.52	1.18	2.97	4.10	5.03	5.68	1.57	2.25	6.90	5.45	6.34	4.14
-- Low	0.92	0.73	0.87	0.96	1.04	0.97	1.49	2.65	3.84	4.77	0.42	1.35	6.03	4.73	5.38	3.36
Monthly																
Jun 03	1.22	0.98	0.94	0.94	1.04	1.06	1.23	2.27	3.51	4.56	0.95	1.75	6.19	4.87	5.23	3.52
Jul 03	1.01	0.89	0.92	0.97	1.05	1.01	1.50	2.84	4.14	5.06	1.33	2.12	6.62	5.14	5.63	3.57
Aug 03	1.03	0.95	0.97	1.05	1.08	1.03	1.89	3.36	4.64	5.46	1.53	2.32	7.01	5.43	6.26	3.79
Sep 03	1.01	0.91	0.96	1.03	1.08	1.02	1.70	3.16	4.45	5.30	1.34	2.19	6.79	5.30	6.15	3.86
Oct 03	1.01	0.91	0.94	1.02	1.10	1.02	1.75	3.17	4.45	5.30	1.24	2.07	6.73	5.27	5.95	3.74
Nov 03	1.00	0.94	0.95	1.04	1.11	1.02	1.92	3.27	4.45	5.27	1.29	1.97	6.66	5.15	5.93	3.75
Dec 03	0.98	0.89	0.92	1.01	1.10	1.03	1.90	3.25	4.41	5.22	1.26	1.99	6.60	5.11	5.88	3.76
Jan 04	1.00	0.84	0.90	0.99	1.06	0.99	1.75	3.10	4.28	5.13	1.11	1.88	6.44	4.99	5.74	3.65
Feb 04	1.01	0.92	0.95	1.01	1.05	0.99	1.73	3.05	4.22	5.06	0.88	1.77	6.27	4.86	5.64	3.55
Mar 04	1.00	0.96	0.95	1.01	1.05	0.99	1.57	2.78	3.96	4.87	0.55	1.48	6.11	4.78	5.45	3.41
Apr 04	1.00	0.90	0.96	1.11	1.08	1.00	2.09	3.38	4.50	5.28	1.05	1.90	6.46	5.13	5.83	3.65
May 04	1.00	0.90	1.04	1.33	1.20	1.00	2.56	3.86	4.88	5.56	1.37	2.09	6.75	5.39	6.27	3.88
Weekly																
Apr 23 04	0.99	0.89	0.98	1.15	1.09	1.01	2.18	3.48	4.58	5.36	1.11	1.96	6.53	5.20	5.94	3.69
Apr 30 04	1.01	0.86	0.98	1.17	1.11	0.98	2.32	3.60	4.65	5.40	1.28	2.08	6.56	5.28	6.01	3.75
May 7 04	1.01	0.88	1.02	1.22	1.13	1.00	2.43	3.74	4.78	5.50	1.36	2.14	6.66	5.32	6.12	3.76
May 14 04	0.99	0.88	1.04	1.35	1.19	1.00	2.64	3.96	4.97	5.64	1.49	2.19	6.82	5.45	6.34	3.90
May 21 04	1.01	0.90	1.05	1.37	1.22	1.00	2.59	3.89	4.90	5.58	1.35	2.04	6.79	5.44	6.30	3.99
May 28 04	1.00	0.93	1.08	1.40	1.26	1.00	2.56	3.84	4.84	5.50	1.28	1.99	6.72	5.36	6.32	3.87
Jun 4 04	1.01	0.95	1.18	1.46	1.32	1.01	2.66	3.90	4.90	5.55	1.34	2.04	6.80	5.39	6.28	3.98
Jun 11 04	0.99	1.00	1.27	1.59	1.41	1.07	2.77	3.98	4.95	5.59	1.46	2.15	6.84	5.42	6.30	4.14
Jun 18 04	1.01	1.04	1.32	1.70	1.50	1.15	2.85	3.97	4.90	5.56	1.46	2.17	6.78	5.40	6.32	4.13
Jun 25 04	--	1.07	1.31	1.70	1.51	1.17	2.79	3.91	4.84	5.51	1.44	2.15	--	--	6.25	4.13
Daily																
Jun 8 04	0.97	1.03	1.27	1.56	1.37	1.05	2.74	3.96	4.93	5.58	1.45	2.15	6.82	--	--	--
Jun 9 04	0.99	1.02	1.27	1.61	1.39	1.05	2.80	4.00	4.97	5.61	1.50	2.19	6.85	--	--	--
Jun 10 04	1.00	1.01	1.29	1.65	1.43	1.10	2.83	4.00	4.96	5.60	1.48	2.18	6.84	--	--	--
Jun 11 04	1.00	--	--	--	1.48	--	--	--	--	--	--	--	--	--	--	--
Jun 14 04	1.02	1.03	1.42	1.78	1.51	1.12	2.97	4.10	5.03	5.68	1.57	2.25	6.90	--	--	--
Jun 15 04	1.03	1.09	1.34	1.69	1.52	1.17	2.79	3.91	4.84	5.51	1.41	2.14	6.75	--	--	--
Jun 16 04	1.00	1.05	1.30	1.69	1.48	1.14	2.84	3.96	4.89	5.55	1.45	2.17	6.78	--	--	--
Jun 17 04	1.01	1.01	1.27	1.66	1.50	1.18	2.82	3.93	4.85	5.51	1.43	2.14	6.74	--	--	--
Jun 18 04	1.00	1.01	1.28	1.68	1.50	1.15	2.83	3.94	4.87	5.52	1.43	2.15	6.75	--	--	--
Jun 21 04	1.00	1.00	1.34	1.71	1.50	1.17	2.81	3.92	4.85	5.52	1.43	2.14	6.75	--	--	--
Jun 22 04	1.00	1.08	1.32	1.70	1.50	1.17	2.81	3.93	4.87	5.53	1.43	2.15	6.77	--	--	--
Jun 23 04	1.02	1.08	1.29	1.69	1.51	1.18	2.79	3.91	4.85	5.52	1.45	2.16	6.77	--	--	--
Jun 24 04	--	1.10	1.28	1.68	1.52	--	2.75	3.86	4.80	5.46	1.44	2.14	--	--	--	--

NOTE: Weekly data for columns 1 through 13 are week-ending averages. Columns 2 through 4 are on a coupon equivalent basis. Data in column 6 are interpolated from data on certain commercial paper trades settled by the Depository Trust Company. Column 14 is the Bond Buyer revenue index, which is a 1-day quote for Thursday. Column 15 is the average contract rate on new commitments for fixed-rate mortgages (FRMs) with 80 percent loan-to-value ratios at major institutional lenders. Column 16 is the average initial contract rate on new commitments for 1-year, adjustable-rate mortgages (ARMs) at major institutional lenders offering both FRMs and ARMs with the same number of discount points.

Money Aggregates

Seasonally adjusted

Period	M1	M2	nontransactions components		M3
			In M2	In M3 only	
	1	2	3	4	5
Annual growth rates(%):					
Annually (Q4 to Q4)					
2001	7.0	10.2	11.1	18.5	12.7
2002	3.3	6.7	7.6	5.8	6.4
2003	6.5	5.2	4.9	2.9	4.5
Quarterly(average)					
2003-Q2	8.6	8.2	8.1	0.4	5.8
Q3	6.5	6.9	7.1	6.1	6.7
Q4	2.4	-1.5	-2.5	-0.9	-1.3
2004-Q1	6.1	3.2	2.4	8.3	4.8
Monthly					
2003-May	11.1	10.4	10.2	1.5	7.6
June	12.5	8.2	7.0	3.7	6.8
July	2.3	8.0	9.5	14.5	10.0
Aug.	7.5	8.0	8.1	-1.3	5.1
Sep.	-0.1	-4.5	-5.6	5.1	-1.5
Oct.	1.7	-3.2	-4.5	-4.3	-3.5
Nov.	0.0	-0.9	-1.1	-1.7	-1.1
Dec.	9.0	-1.1	-3.8	-0.6	-0.9
2004-Jan.	-5.8	1.1	3.0	18.2	6.5
Feb.	18.1	9.6	7.3	5.5	8.3
Mar.	17.5	8.9	6.5	11.1	9.6
Apr.	-3.1	8.8	12.1	11.5	9.7
May	-2.3	13.1	17.2	16.9	14.3
Levels ($billions):					
Monthly					
2004-Jan.	1286.6	6062.6	4776.0	2816.4	8879.0
Feb.	1306.0	6110.9	4804.9	2829.4	8940.3
Mar.	1325.1	6156.2	4831.1	2855.5	9011.7
Apr.	1321.7	6201.5	4879.9	2882.8	9084.3
May	1319.2	6269.0	4949.9	2923.5	9192.5
Weekly					
2004-May 3	1356.6	6254.7	4898.0	2917.8	9172.5
10	1293.4	6247.8	4954.5	2926.9	9174.7
17	1317.1	6289.8	4972.7	2930.9	9220.7
24	1333.9	6277.1	4943.2	2917.8	9194.9
31	1322.9	6273.8	4950.9	2925.7	9199.5
June 7p	1308.3	6264.6	4956.4	2943.9	9208.5
14p	1319.9	6275.0	4955.1	2972.4	9247.4

p preliminary

Changes in System Holdings of Securities [1]
(Millions of dollars, not seasonally adjusted)

Strictly Confidential
Class II FOMC

June 24, 2004

	Treasury Bills			Treasury Coupons						Federal Agency	Net change total	Net RPs [5]		
	Net Purchases [2]	Redemptions (-)	Net Change	Net Purchases [3] < 1	Net Purchases [3] 1-5	Net Purchases [3] 5-10	Net Purchases [3] Over 10	Redemptions (-)	Net Change	Redemptions (-)	outright holdings [4]	Short-Term [6]	Long-Term [7]	Net Change
2001	15,503	10,095	5,408	15,663	22,814	6,003	8,531	16,802	36,208	120	41,496	3,492	636	4,128
2002	21,421	---	21,421	12,720	12,748	5,074	2,280	---	32,822	---	54,242	-5,366	517	-4,850
2003	18,150	---	18,150	6,565	7,814	4,107	220	---	18,706	10	36,846	2,223	1,036	3,259
2003 QI	6,024	---	6,024	1,796	2,837	1,291	50	---	5,974	---	11,998	1,957	3,770	5,727
QII	6,259	---	6,259	2,209	1,790	234	---	---	4,232	---	10,491	-2,578	1,056	-1,522
QIII	2,568	---	2,568	---	---	1,232	150	---	1,382	---	3,950	1,712	-554	1,158
QIV	3,299	---	3,299	2,561	3,188	1,350	20	---	7,118	10	10,407	-561	2,750	2,189
2004 QI	1,707	---	1,707	1,311	2,848	1,251	275	---	5,685	---	7,391	-772	-3,515	-4,286
2003 Oct	880	---	880	---	1,447	280	---	---	1,728	---	2,608	-73	-527	-600
Nov	925	---	925	2,561	1,503	787	---	---	4,851	---	5,775	-382	894	512
Dec	1,494	---	1,494	---	237	283	20	---	540	10	2,024	-767	5,268	4,500
2004 Jan	619	---	619	---	---	---	---	---	---	---	619	-424	-5,097	-5,520
Feb	747	---	747	1,311	1,555	510	235	---	3,611	---	4,358	-568	-2,423	-2,991
Mar	341	---	341	---	1,293	741	40	---	2,074	---	2,414	1,949	-1,803	146
Apr	3,516	---	3,516	---	---	---	---	---	---	---	3,516	1,041	1,355	2,396
May	409	---	409	1,693	783	713	84	---	3,272	---	3,681	-637	710	73
2004 Mar 31	71	---	71	---	---	---	---	---	---	---	71	4,352	---	4,352
Apr 7	190	---	190	---	---	---	---	---	---	---	190	-3,727	---	-3,727
Apr 14	403	---	403	---	---	---	---	---	---	---	403	5,420	---	5,420
Apr 21	200	---	200	---	---	---	---	---	---	---	200	-4,484	4,000	-484
Apr 28	1,425	---	1,425	---	---	---	---	---	---	---	1,425	3,917	---	3,917
May 5	1,405	---	1,405	---	---	---	---	---	---	---	1,405	-4,038	-2,000	-6,038
May 12	---	---	---	---	---	---	---	---	---	---	---	-721	1,000	279
May 19	67	---	67	1,693	---	---	---	---	1,693	---	1,760	849	-1,000	-151
May 26	209	---	209	---	783	---	---	---	783	---	991	3,800	---	3,800
Jun 2	33	---	33	---	---	713	84	---	797	---	830	-564	3,000	2,436
Jun 9	1,437	---	1,437	---	725	275	---	---	1,000	---	2,437	-6,834	2,000	-4,834
Jun 16	14	---	14	---	1,035	---	---	---	1,035	---	1,049	248	-2,000	-1,752
Jun 23	172	---	172	---	---	---	---	---	---	---	172	6,762	-4,000	2,762
2004 Jun 24	1,640	---	1,640	---	---	---	---	---	---	---	1,640	-14,036	4,000	-10,036
Intermeeting Period														
May 4-Jun 24	3,571	---	3,571	1,693	2,543	988	84	---	5,307	---	8,878	-4,613	3,000	-1,613
Memo: LEVEL (bil. $)														
Jun 24			253.7	117.6	187.2	51.6	76.7		433.1	---	686.8	-14.5	19.0	4.5

1. Change from end-of-period to end-of-period. Excludes changes in compensation for the effects of inflation on the principal of inflation-indexed securities.
2. Outright purchases less outright sales (in market and with foreign accounts).
3. Outright purchases less outright sales (in market and with foreign accounts). Includes short-term notes acquired in exchange for maturing bills. Excludes maturity shifts and rollovers of maturing issues, except the rollover of inflation compensation.
4. Includes redemptions (-) of Treasury and agency securities.
5. RPs outstanding less reverse RPs.
6. Original maturity of 13 days or less.
7. Original maturity of 14 to 90 days.

MRA:SCL