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.

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JANUARY 25, 2007

MONETARY POLICY ALTERNATIVES

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

MONETARY POLICY ALTERNATIVES

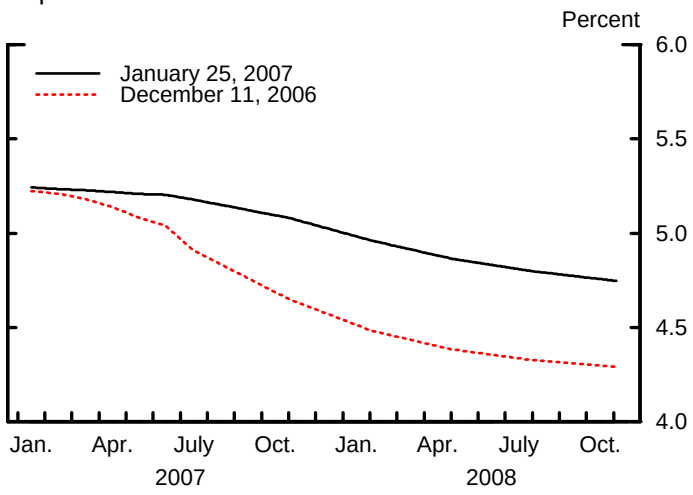
Recent Developments

(1) The Committee's decision at its December meeting to leave the target federal funds rate unchanged conformed to investor expectations, as did the retention of the tilt and risk assessment from the previous statement.[1] The language in the rationale portion of the statement, in contrast, was apparently read as suggesting a slight softening in the Committee's outlook for economic growth, and the expected path for monetary policy beyond the near term edged down in response. Over the intermeeting period, the release of the minutes of the December FOMC meeting and speeches by FOMC officials had little net effect on market perceptions. However, stronger-than-expected reports on the economy, significant declines in oil prices, and generally benign inflation readings seemed to prompt investors to boost their expectations of growth and to mark down their assessment of near-term inflation pressures. In terms of the implications for investors' expectations for the path of the federal funds rate, the revisions to the growth outlook apparently predominated: The expected trajectory of the federal funds rate over the next two years rotated up, with futures markets putting the federal funds rate at around 4.75 percent at the end of 2008, about 45 basis points higher than at the time of the December meeting (Chart 1). Market participants—including respondents to the Desk's survey of primary dealers—now appear to believe that the federal funds rate will probably remain unchanged through the first half of this year. Option-implied measures of uncertainty about the path of policy more than reversed their increases over the

[1] The effective federal funds rate averaged 5.24 percent over the intermeeting period. During the period, the Desk purchased $3.4 billion of Treasury coupon securities in the market. The volume of outstanding long-term RPs decreased $4 billion, to $15 billion, to offset the seasonal reflow of currency.

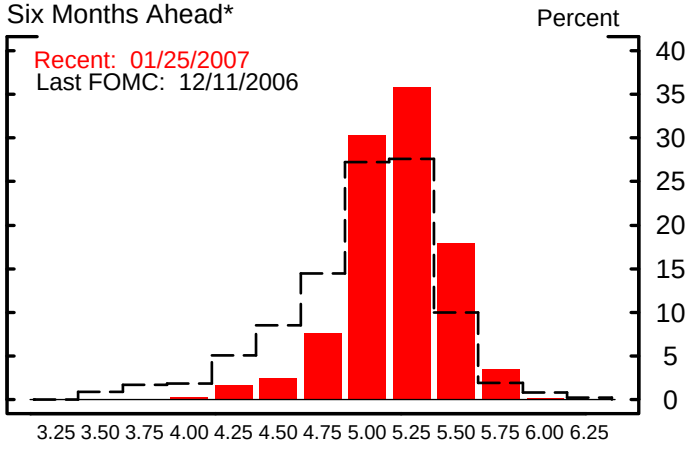
Chart 1
Interest Rate Developments

Expected Federal Funds Rates*



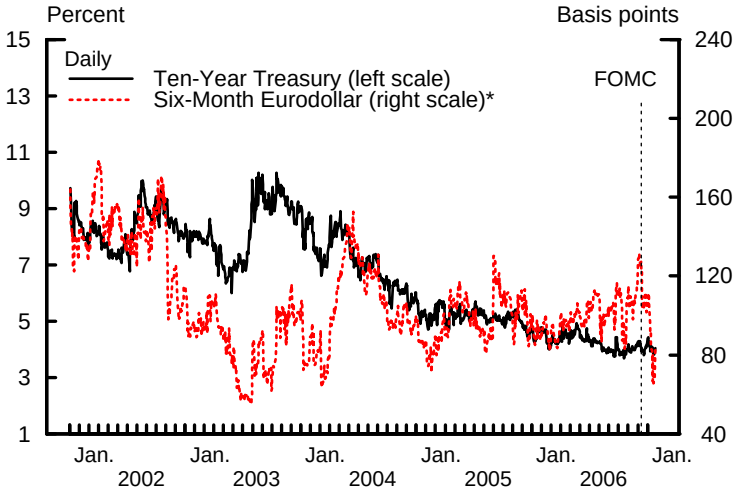
*Estimates from federal funds and Eurodollar futures, with an allowance for term premiums and other adjustments.

Implied Distribution of Federal Funds Rate about Six Months Ahead*



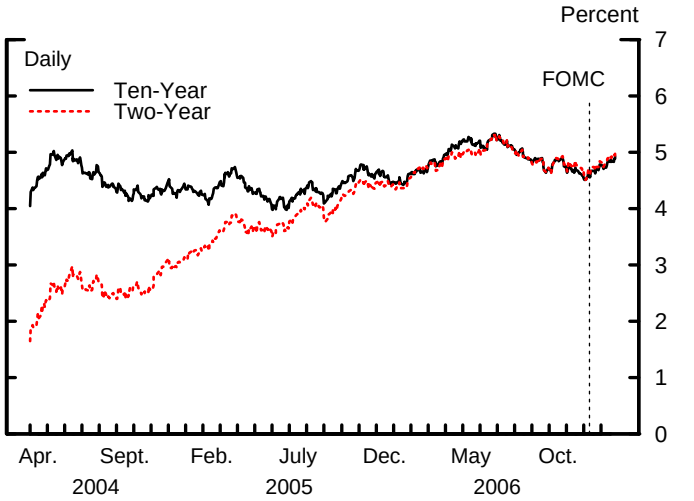
*Estimates from options on Eurodollar futures contracts, adjusted to estimate expectations for the federal funds rate.

Implied Volatilities



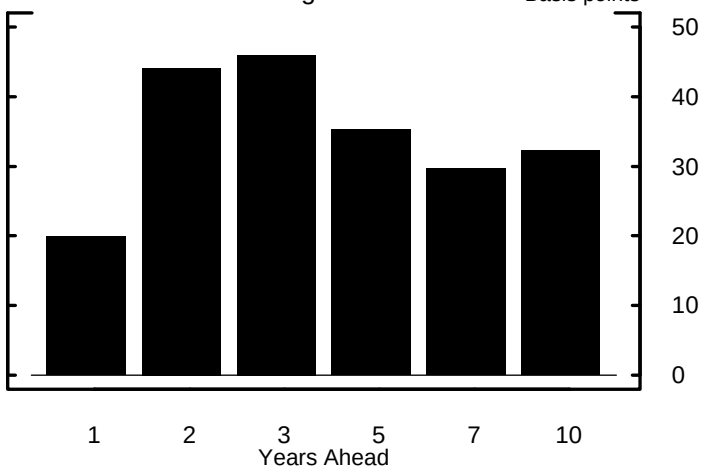
*Width of a 90 percent confidence interval computed from the term structures for the expected federal funds rate and implied volatility.

Nominal Treasury Yields*



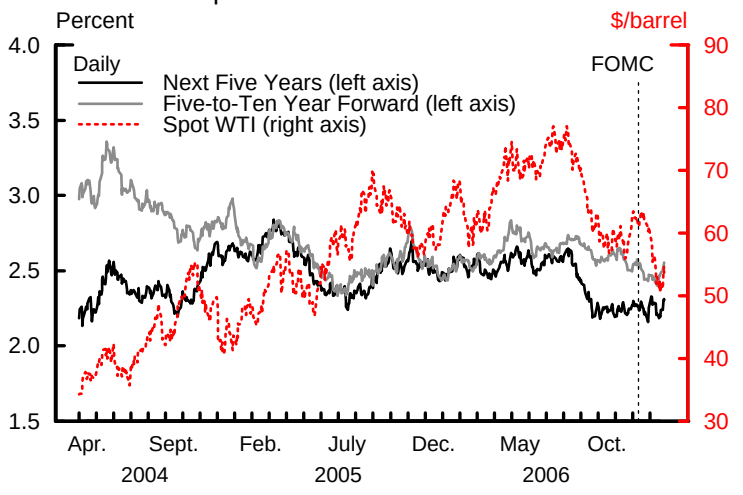
*Par yields from a smoothed nominal off-the-run Treasury yield curve.

Change in Implied One-Year Forward Treasury Rates since Last FOMC Meeting*



*Forward rates are the one-year rates maturing at the end of the year shown on the horizontal axis that are implied by the smoothed Treasury yield curve.

Inflation Compensation and Oil Prices*



*Estimates based on smoothed nominal and inflation-indexed Treasury yield curves and adjusted for the indexation-lag (carry) effect.

Note: Vertical lines indicate December 11, 2006. Last daily observations are for January 25, 2007.

previous intermeeting period, and the implied distribution of the funds rate about six months ahead now shows less of a skew toward significantly lower rates.

(2) Yields on Treasury securities shifted up in a parallel fashion across the term structure, with two- through ten-year nominal Treasury rates increasing about 35 basis points over the intermeeting period. Increases in forward rates at longer horizons appeared to reflect both the expectation of higher future short rates and wider term premiums. TIPS-based inflation compensation was little changed at medium- and long-term maturities. Inflation expectations as measured by the Reuters-Michigan survey were also about unchanged.

(3) Broad equity indexes were little changed over the intermeeting period (Chart 2), as higher bond yields evidently countered the effects of favorable economic news and generally upbeat early readings on fourth-quarter earnings. Implied volatility of the S&P 500 remained near historical lows. The equity risk premium, as gauged by the difference between the twelve-month forward trend earnings-price ratio and the real long-term Treasury yield, declined a bit. Spreads of yields on investment-grade bonds over those on comparable-maturity nominal Treasuries held steady, while those on speculative-grade corporate bonds narrowed. Corporate credit quality remained solid, with realized and expected default rates staying very low.

(4) Indications of stronger U.S. economic growth helped lift the trade-weighted value of the dollar about 2 percent, on balance, versus major foreign currencies over the intermeeting period (Chart 3).[2] The dollar's largest gain—3¼ percent—came against the yen as investors reportedly came to expect the Japanese economy to recover more slowly and Japanese monetary authorities to tighten less in the near term than had been anticipated. The dollar rose about 2 percent against the Canadian

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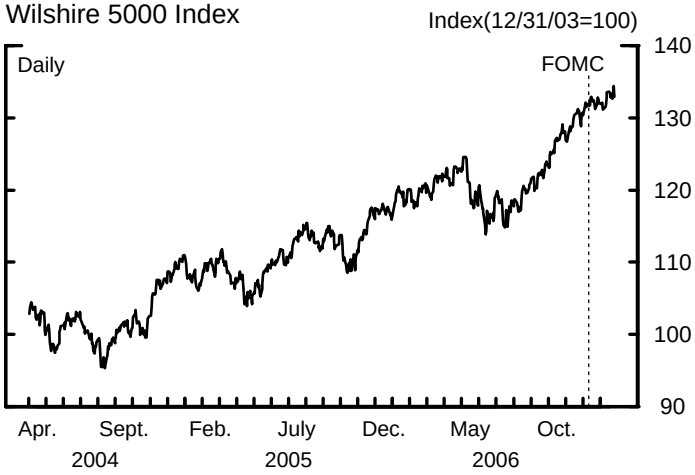
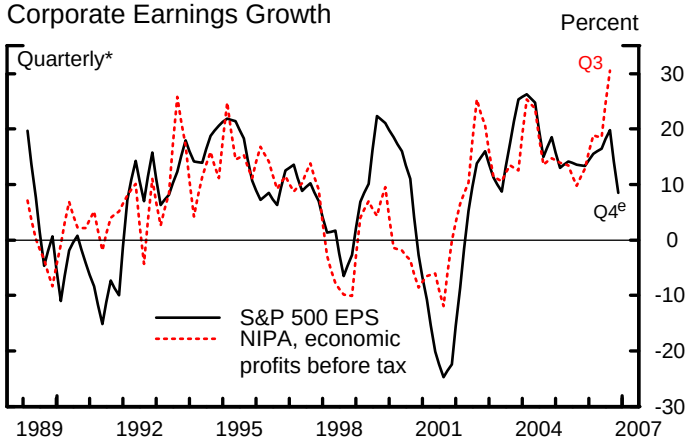
Chart 2
Asset Market Developments

Wilshire 5000 Index

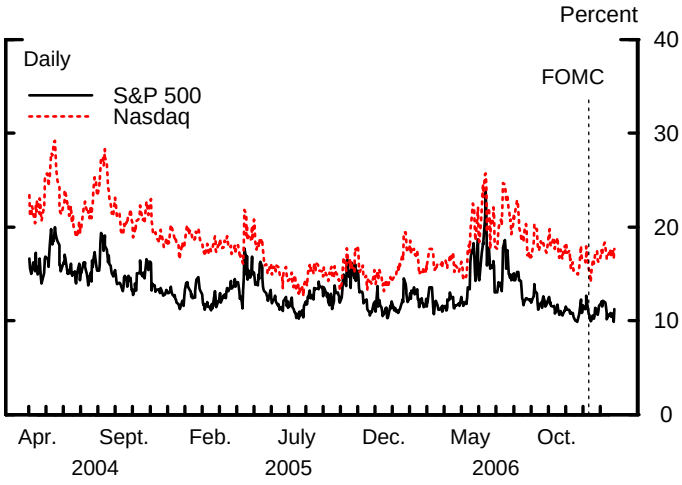


Corporate Earnings Growth

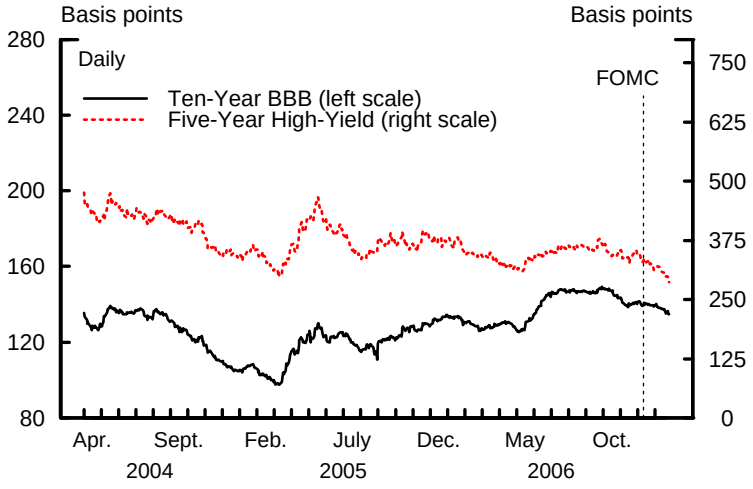


*Change from four quarters earlier.
Source. I/B/E/S for S&P 500 EPS.

Implied Volatilities

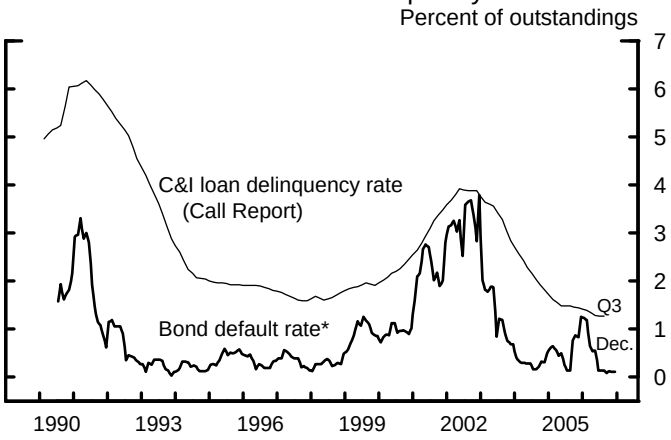


Corporate Bond Spreads*



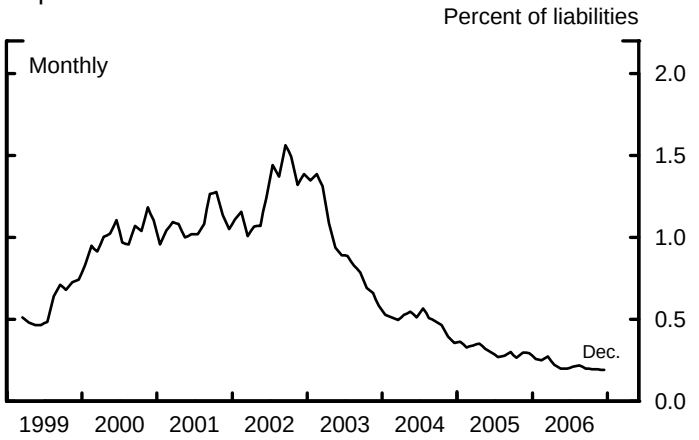
*Measured relative to an estimated off-the-run Treasury yield curve.

Bond Default and C&I Loan Delinquency Rates



*Six-month moving average, from Moody's Investors Service.

Expected Year-Ahead Defaults*

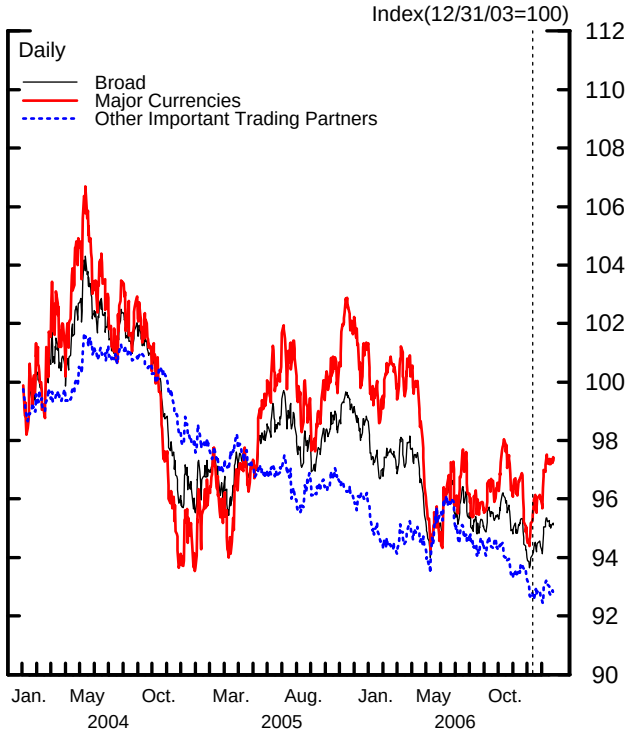


*Firm-level estimates of year-ahead defaults from KMV corporation, weighted by firm liabilities as a percent of total liabilities, excluding defaulted firms.

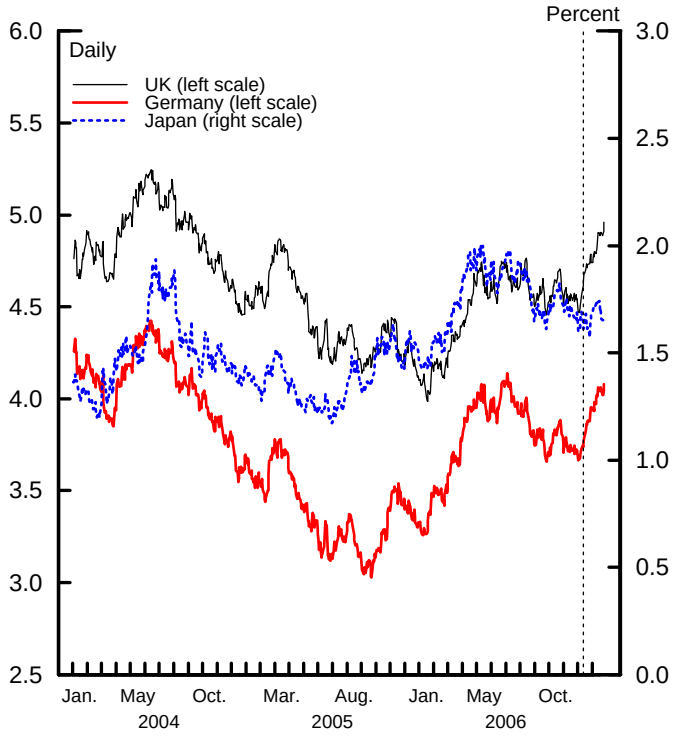
Note: Vertical lines indicate December 11, 2006. Last daily observations are for January 25, 2007.

Chart 3
International Financial Indicators

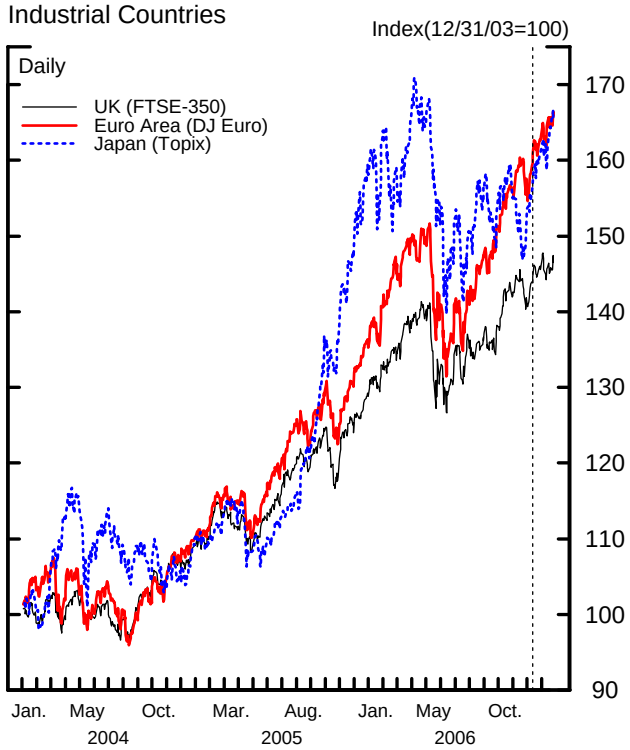
Nominal Trade-Weighted Dollar Indexes



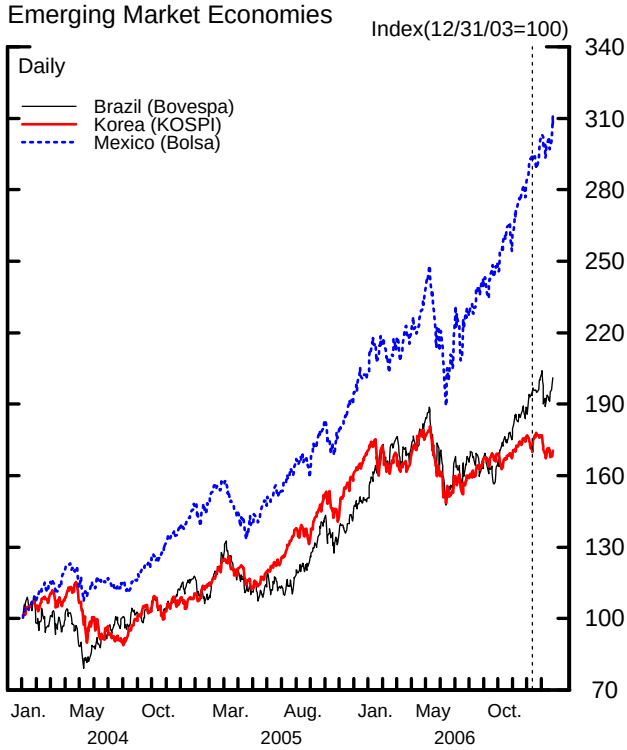
Ten-Year Government Bond Yields (Nominal)



Stock Price Indexes
Industrial Countries



Stock Price Indexes
Emerging Market Economies



Note:
Vertical lines indicate December 12, 2006. Last daily observations are for January 25, 2007.

dollar and the euro. By contrast, the dollar fell slightly on net against sterling as the Bank of England, citing concerns about inflation pressures, wrong-footed markets on January 11 by increasing its policy rate 25 basis points. Yields on long-term government securities in most major foreign industrial countries rose 30 to 35 basis points, roughly matching the increases on comparable U.S. issues. As in the United States, most of the increases abroad appeared to be in the real component of yields, as market participants seemed to be factoring in expectations of greater strength in the global economy, including expected support to growth from the recent drop in oil prices. A notable exception to this pattern was Japan, where nominal yields were roughly unchanged on net over the intermeeting period. Stock markets in the major industrial countries recorded gains of 1 to 6 percent.

(5) The foreign exchange value of the dollar was about unchanged on net against an index of currencies of our other important trading partners. In Thailand, financial markets continued to be volatile, reacting in part to authorities' efforts to deter capital inflows; share prices fell more than 10 percent. The Thai turmoil did not appear to spill over to other Asian financial markets, and most Asian currencies moved in fairly narrow ranges. The dollar declined ¾ percent versus the Chinese renminbi over the intermeeting period. The dollar edged lower versus the Brazilian real, and the Brazilian EMBI+ spread narrowed to a record low of about 185 basis points.

(6) The debt of domestic nonfinancial sectors is estimated to have expanded at an annual rate of 7½ percent in the fourth quarter of last year, close to the pace registered over 2006 as a whole (Chart 4). Business debt grew more quickly last quarter, boosted in large part by a pickup in merger-related borrowing. Among the major components of business debt, a sharp rise in the issuance of corporate bonds and commercial paper more than offset a moderation in the growth of C&I loans. In the household sector, home mortgage debt is thought to have decelerated further in

Chart 4
Debt and Money

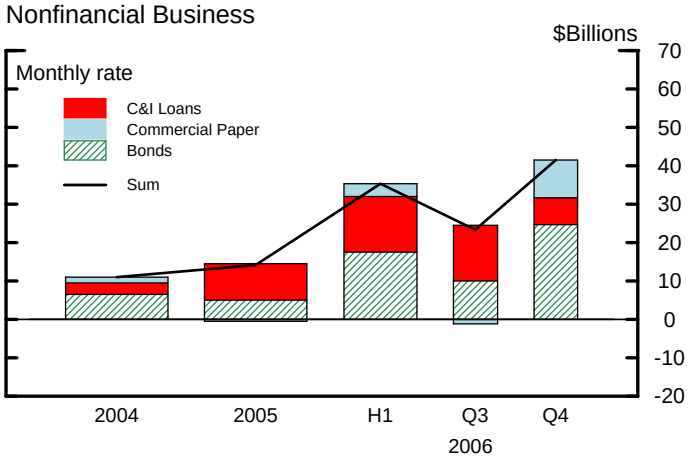
Growth of Debt of Nonfinancial Sectors

Percent, s.a.a.r.

	Total	Nonfederal
2005	9.5	10.1
2006	7.8	8.6
Q1	9.5	9.1
Q2	6.7	8.7
Q3	6.6	7.3
Q4e	7.5	8.3

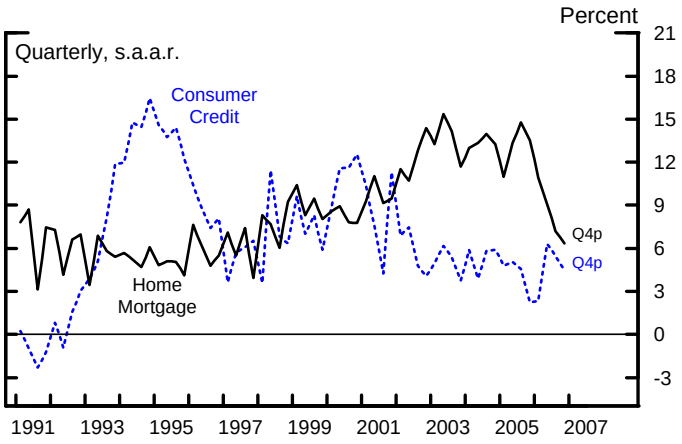
e Estimated.

Changes in Selected Components of Debt of Nonfinancial Business



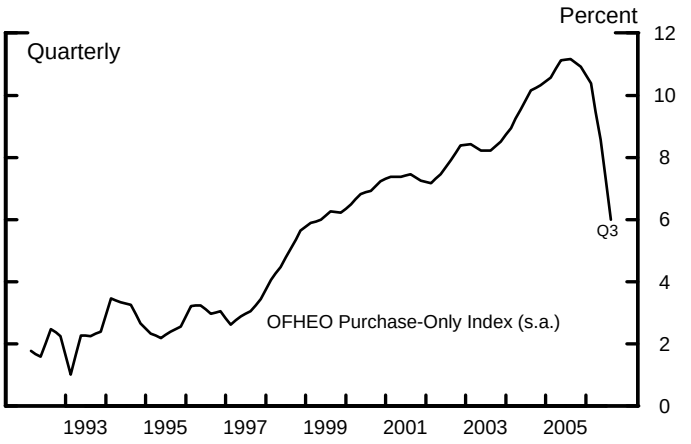
Note. Commercial paper and C&I loans are seasonally adjusted, bonds are not.

Growth of Debt of Household Sector



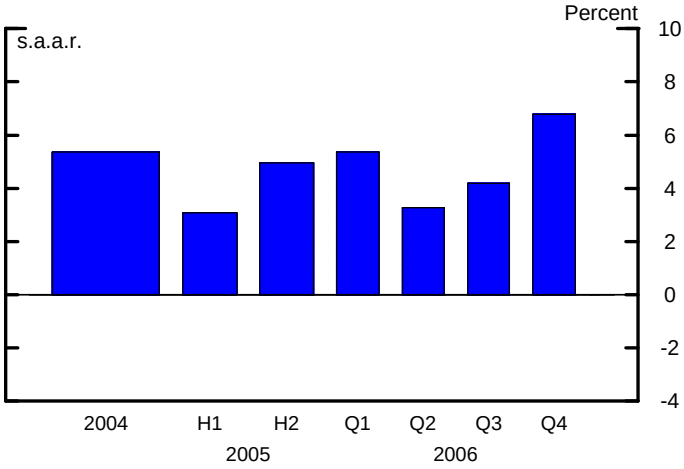
p Projected.

Growth of House Prices

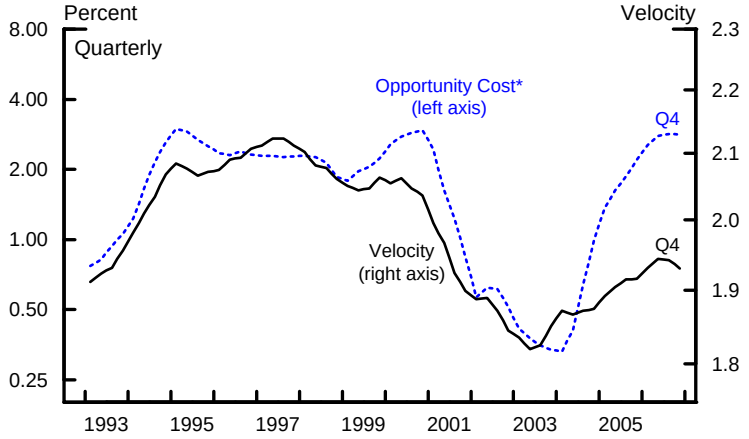


Note. Four-quarter growth rate.

Growth of M2



M2 Velocity and Opportunity Cost



*Two-quarter moving average.

the fourth quarter, reflecting in part the ongoing slowing in house price appreciation. Respondents to the January Senior Loan Officer Opinion Survey reported weaker demand for mortgage loans, and some indicated that they had tightened standards for such loans. The growth of consumer credit appears to have remained moderate last quarter.

(7) M2 expanded briskly in December, bringing fourth-quarter growth to 6¾ percent.[3] Some of this strength probably reflected the lagged influence of declines in opportunity cost since midyear. In January, the aggregate appears to have accelerated to a 9 percent rate, as growth of liquid deposits has picked up further. Retail money funds have continued to increase at a robust rate, while small time deposits appear to be decelerating. Currency growth has been restrained as solid domestic demand has partially offset weak international demand.

[3] These data incorporate the results of the annual review of seasonal factors.

Economic Outlook through 2008

(8) The incoming data over the intermeeting period led the staff to mark up its assessment of real GDP in the fourth quarter of 2006. The contours of the Greenbook forecast are otherwise little changed: Real GDP is again projected to grow about 2¼ percent this year and 2½ percent in 2008. With output expanding somewhat more slowly than the staff's estimate of potential GDP this year and about at potential next year, the unemployment rate rises to almost 5 percent early next year and then levels off. The path of core inflation is slightly below the December projection, mainly owing to new inflation data, lower energy and other commodity prices, and lower core import prices. The staff now expects core PCE inflation to average 2¼ percent this year and 2 percent in 2008, while total PCE prices are projected to rise a bit faster than 2 percent in both years. The forecast assumes that the Committee holds policy unchanged over the next two years, rather than easing slightly in mid-2008, as in the previous round. Long-term Treasury yields are projected to edge up a bit over the forecast horizon as market participants come to realize that policy will not be eased as they had anticipated. Stock prices are again assumed to rise at about a 6½ percent annual rate. The real trade-weighted foreign exchange value of the dollar is projected to depreciate gradually, but from a higher level. Reflecting the sharp decline in both spot and futures quotes, oil prices throughout the forecast period are about $9 per barrel lower than in the December Greenbook.

Medium-Term Strategies

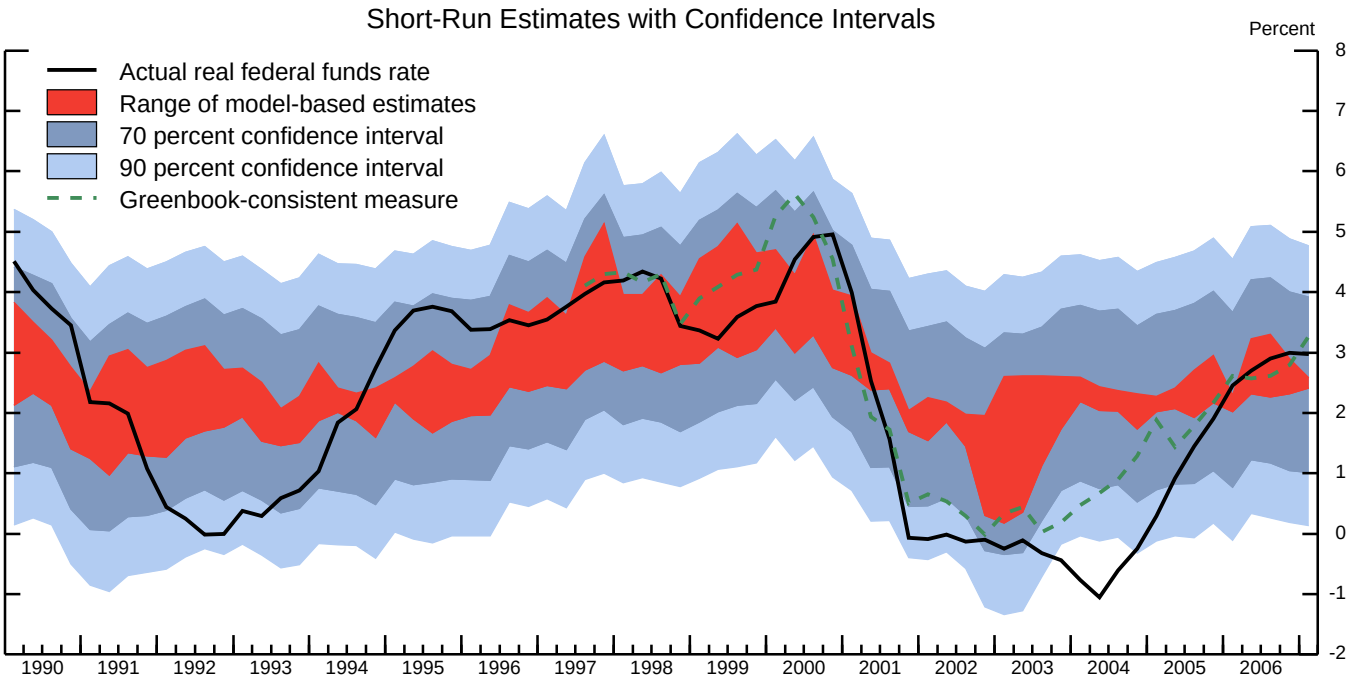
(9) To shed additional light on the economic outlook and possible policy strategies, the FRB/US model was used to construct an illustrative extension of the Greenbook forecast beyond 2008 based on a set of medium-term assumptions together with some judgmental adjustments. Important influences on the outlook

include trend multifactor productivity growth of about 1¾ percent per year, approximately flat energy prices, and a pickup in the pace of real dollar depreciation to an average rate of 3 percent per year. Given the impetus to inflation from the declining foreign exchange value of the dollar, the unemployment rate would need to be a bit above the staff's assumed long-run NAIRU of 5 percent to keep core PCE inflation stable. The contours of aggregate demand are influenced by the unified federal budget deficit, which rises from 2 percent of GDP next year to about 2¾ percent by 2012, and by the current account deficit, which stabilizes at around 8 percent of GDP in response to the dollar's depreciation and steady growth abroad. Further assuming that term, credit, and equity risk premiums gradually revert back to their historical norms, the real federal funds rate would need to decline about a percentage point from its current level, to around 2 percent, by 2012 to keep output expanding along the path of its potential.

(10) As shown in Chart 5, the Greenbook-consistent estimate of short-run *r**—the value of the real federal funds rate that would put the level of real GDP at its potential twelve quarters ahead—has shifted up about 50 basis points since the previous Bluebook. This increase owes mainly to the upward revision to the staff's assessment of aggregate demand implied by lower energy prices and recent robust readings on consumer spending. The Greenbook-consistent measure of short-run *r** now stands at about 3¼ percent, a bit above the actual real funds rate, while all three model-based estimates are considerably lower, at around 2½ percent. The model-based estimates of medium-run *r**—the value of the real funds rate consistent with keeping output at potential at a seven-year horizon—are close to 2¼ percent, just above the TIPS-based measure of about 2 percent.

(11) Chart 6 depicts optimal control simulations of the FRB/US model in which policymakers are assumed to place equal weight on three stabilization objectives: keeping core PCE inflation close to a specified goal of either 1½ or 2 percent, keeping

Chart 5
Equilibrium Real Federal Funds Rate



Short-Run and Medium-Run Measures

	Current Estimate	*Previous Bluebook*
Short-Run Measures		
Single-equation model	2.4	*2.1*
Small structural model	2.4	*2.2*
Large model (FRB/US)	2.6	*2.7*
Confidence intervals for three model-based estimates		
70 percent confidence interval	1.0 - 3.9	
90 percent confidence interval	0.1 - 4.8	
Greenbook-consistent measure	3.3	*2.8*
Medium-Run Measures		
Single-equation model	2.3	*2.2*
Small structural model	2.3	*2.1*
Confidence intervals for two model-based estimates		
70 percent confidence interval	1.4 - 3.2	
90 percent confidence interval	0.8 - 3.8	
TIPS-based factor model	2.1	*2.1*
Memo		
Actual real federal funds rate	3.0	*2.9*

Note: Appendix A provides background information regarding the construction of these measures and confidence intervals.

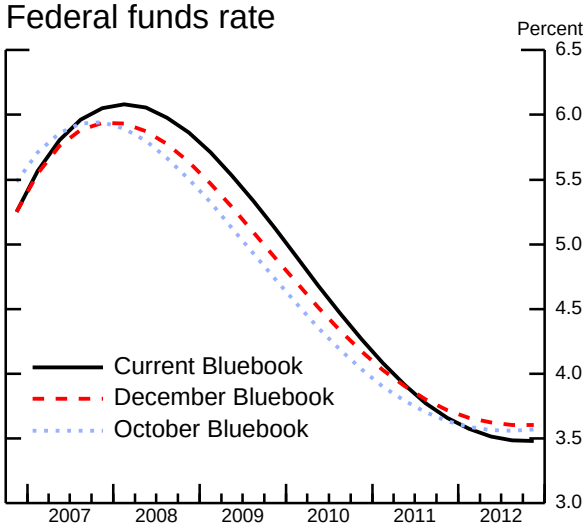
Chart 6

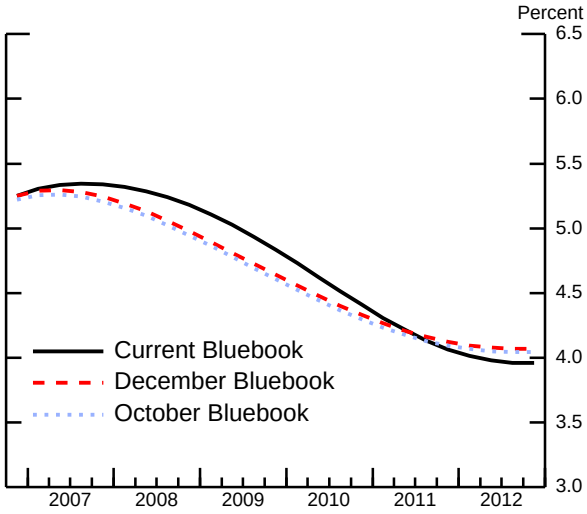
Optimal Policy Under Alternative Inflation Goals

1½ Percent Inflation Goal

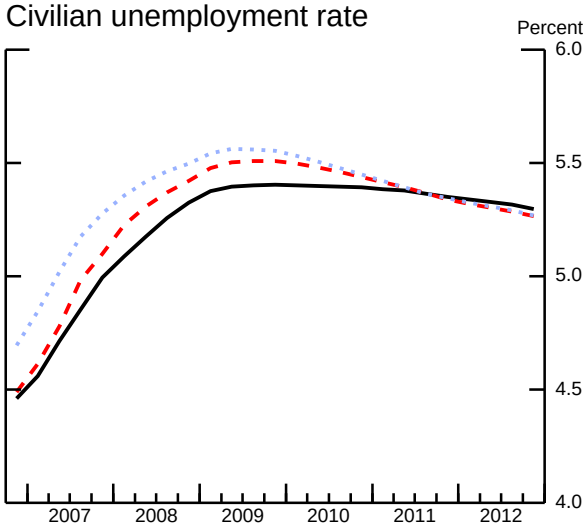
2 Percent Inflation Goal

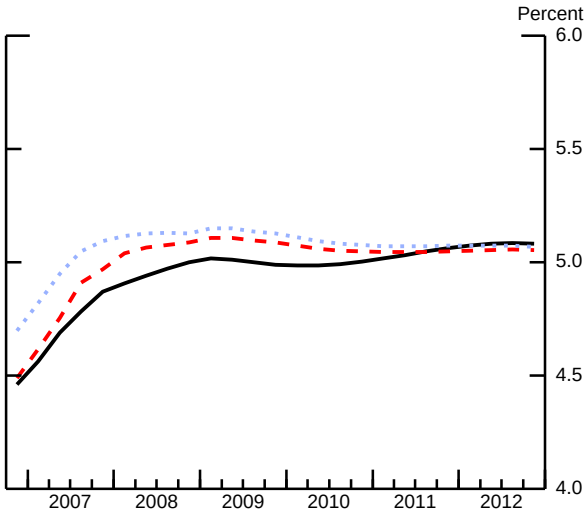
Federal funds rate





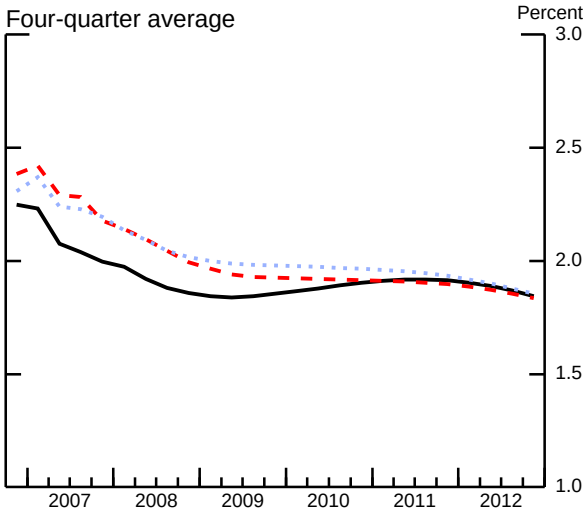
Civilian unemployment rate



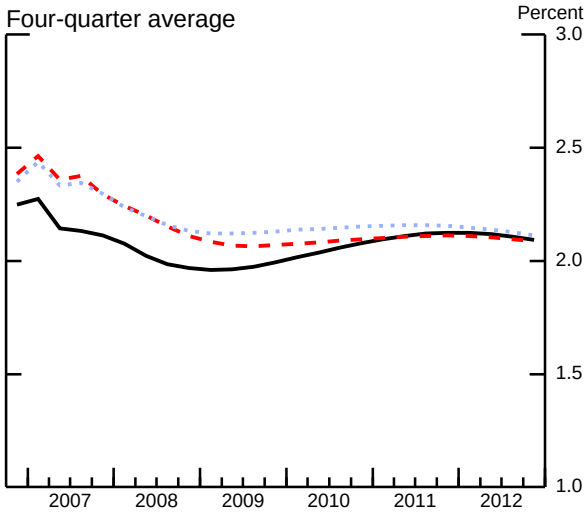


Core PCE inflation

Four-quarter average



Four-quarter average



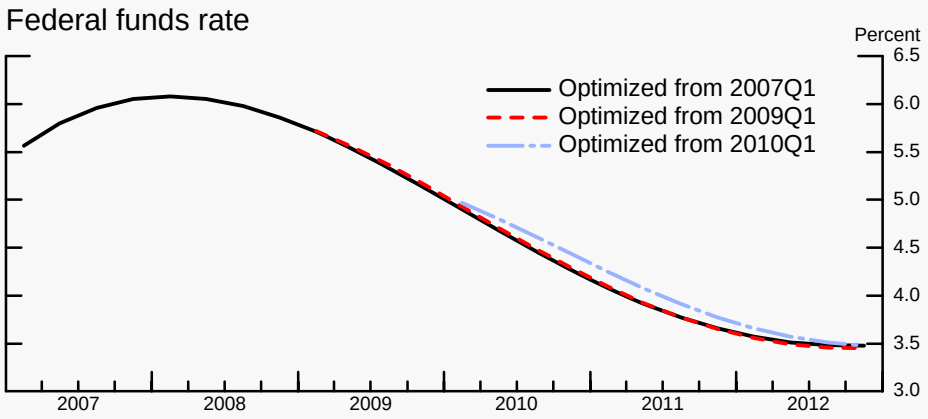
unemployment close to the long-run NAIRU, and avoiding changes in the nominal funds rate.[4] In principle, because the decisions of the private sector depend in part on expectations regarding the future path of policy, and because policymakers are assumed to place somewhat greater weight on near-term outcomes relative to those at distant horizons, a policymaker might be tempted to reoptimize the path of policy at a later date, even in the absence of any new information. However, given the structure of the FRB/US model, the magnitude of those readjustments in current circumstances would be very small (see box on "Dynamic Inconsistency and Optimal Control Policies"). For an inflation goal of 2 percent (the right-hand set of charts), the optimal path of the nominal federal funds rate is somewhat higher than that presented in the October and December Bluebooks, remaining close to 5¼ percent over the next two years and then gradually declining to about 4 percent by the end of 2012. With a lower near-term outlook for core inflation, this path for the nominal rate implies a somewhat higher real interest rate, which tempers the increased strength of aggregate demand. Output remains close to its potential; the unemployment rate returns to the NAIRU by the end of next year and remains near that rate in subsequent years. However, the cumulative decline in energy prices helps nudge inflation lower, and core inflation settles around its 2 percent goal without the need for any substantial economic slack. By contrast, with an inflation goal of 1½ percent (left-hand set of charts), the optimal funds rate peaks at just above 6 percent in early 2008—a bit higher than in the last two Bluebooks—and then declines gradually to about 3½ percent by 2012. Furthermore, it is evident from this scenario that the latest revision to the staff's outlook has not significantly affected the medium-term policy tradeoff: The optimal policy generates outcomes in 2012 for both

[4] In conducting these simulations, policymakers and participants in financial markets are assumed to understand fully the forces shaping the economic outlook whereas the expectations of households and firms are formed using more limited information.

Dynamic Inconsistency and Optimal Control Policies

The optimal control policies shown in the Bluebook assume that the policymaker specifies a particular funds rate path starting from that date and then follows that path. In principle, a policymaker might be tempted to reoptimize the path of policy at some later date, even in the absence of new information; that is, the prescriptions from these simulations might exhibit *dynamic inconsistency*. The academic literature has emphasized two possible sources of this temptation. First, policymakers might desire to keep the unemployment rate below its sustainable rate and hence be inclined towards inflation surprises; however, because such surprises cannot be systematic if the private sector's expectations are rationally determined, this inclination toward stimulative policies only raises inflation. Second, if current decisions of the private sector depend on expected future monetary policy actions and if policymakers discount the future, then the central bank may be tempted to view private-sector expectations of future policy actions as a separate instrument from actual actions. In the optimal control scenarios shown in the Bluebook, the first source of dynamic inconsistency does not arise because, along with other goals, policymakers are always assumed to have the objective of keeping unemployment close to its natural rate. However, the second source could be relevant for the optimal control simulations that have become a staple of the Bluebook.

The magnitude of this dynamic inconsistency can be gauged, for example, by considering the optimal control scenario shown in the left column of Chart 6, in which the policymaker has an inflation goal of 1½ percent. As shown in the chart below, in the absence of any new information, reoptimizing the policy path in either 2009 (the dashed line) or 2010 (the dash-dotted line) yields funds rate prescriptions that differ by less than ¼ percentage point from those of the optimal policy in the benchmark scenario (the solid line). Additional simulations (not shown) indicate that the small magnitude of these deviations is robust to alternative values of the policymaker's discount rate and to the relative weight placed on the objective of avoiding interest rate changes.



The small magnitude of dynamic inconsistency provides some reassurance that the optimal control simulations shown in each Bluebook can serve as useful benchmarks in assessing medium-term policy strategies. Of course, this issue might well loom larger under different macroeconomic circumstances or under alternative assumptions about policymaker preferences and private-sector expectations formation.[1]

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[1] For further discussion on the sensitivity of the optimal control simulations, see the memo to the Committee by Michael Kiley, Thomas Laubach, and Robert Tetlow, "Optimal-Control Monetary Policies," June 20, 2006.

unemployment and core inflation that are quite close to those presented in October and December.

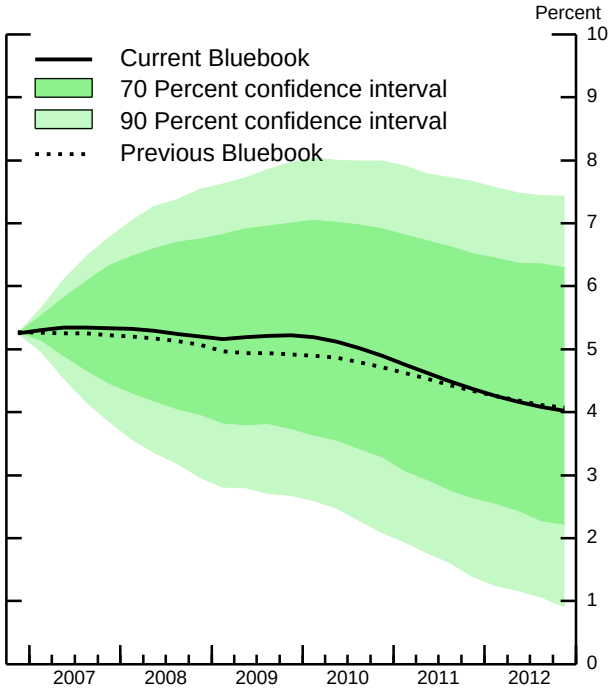
(12) The upper panels of Chart 7 depict model- and market-based assessments of the policy outlook through the end of 2012. In the absence of shocks, the outcome-based rule prescribes a funds rate path that declines gradually to about 4 percent by the end of 2012, while interest rate forwards imply a faster decline over the next two years and a leveling off at about 4½ percent after that. Stochastic simulations of the FRB/US model indicate a 70 percent probability that the prescriptions of the outcome-based rule will fall in a range of 2 to 6½ percent during 2012; information from at-the-money interest rate caps also indicates considerable uncertainty in financial markets regarding the prospective path of policy at longer horizons (see box on "Assessing Medium-Term Policy Uncertainty using Interest Rate Caps").

(13) The lower portion of Chart 7 reports the near-term prescriptions of simple policy rules for inflation goals of 1½ or 2 percent. For example, the rule proposed by Taylor (1999) prescribes a funds rate of about 4¾ to 5 percent for the current quarter, whereas a funds rate of 5½ to 5¾ percent is stipulated by a variant of that rule incorporating a higher value of r^*. In each of these cases, the rule is consistent with a cut next quarter of about 25 basis points. In contrast to the Taylor rules, the first-difference rule—which does not require estimates of the levels of the output gap or the equilibrium real interest rate—generates a funds rate that rises to 5¾ percent next quarter if the inflation goal is 1½ percent, or a flat funds rate if the inflation goal is 2 percent.

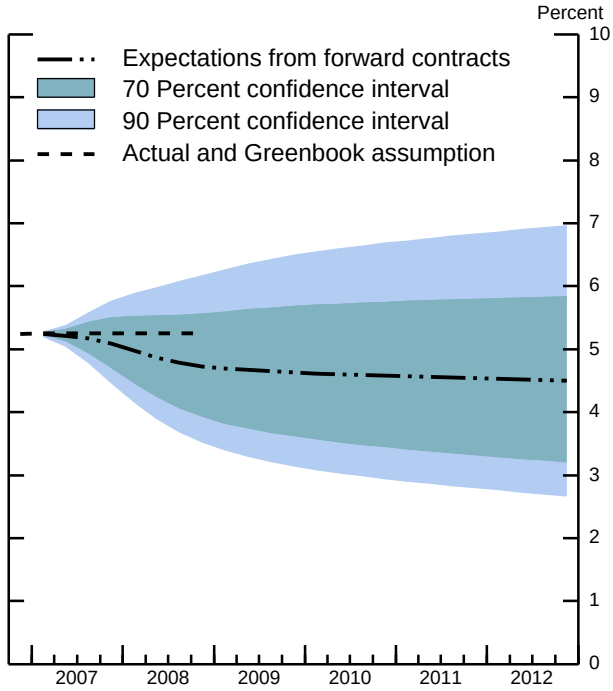
Chart 7

The Policy Outlook in an Uncertain Environment

FRB/US Model Simulations of Estimated Outcome-Based Rule



Information from Financial Markets



Near-Term Prescriptions of Simple Policy Rules

	1½ Percent Inflation Objective		2 Percent Inflation Objective	
	2007Q1	2007Q2	2007Q1	2007Q2
Taylor (1993) rule	4.8	4.6	4.6	4.4
Previous Bluebook	*4.9*	*4.7*	*4.7*	*4.5*
Taylor (1999) rule	5.0	4.7	4.7	4.5
Previous Bluebook	*4.9*	*4.7*	*4.6*	*4.4*
Taylor (1999) rule with higher r*	5.7	5.5	5.5	5.2
Previous Bluebook	*5.6*	*5.4*	*5.4*	*5.2*
First-difference rule	5.4	5.7	5.2	5.2
Previous Bluebook	*5.5*	*5.7*	*5.2*	*5.2*

Memo	2007Q1	2007Q2
Estimated outcome-based rule	5.3	5.3
Estimated forecast-based rule	5.1	5.0
Greenbook assumption	5.3	5.3
Market expectations	5.2	5.2

Note: Appendix B provides background information regarding the specification of each rule and the methodology used in constructing confidence intervals and near-term prescriptions.

Assessing Medium-Term Policy Uncertainty using Interest Rate Caps

Uncertainty around the prospective path of the federal funds rate can be assessed using implied volatilities derived from interest rate derivatives. In previous Bluebooks, options on Eurodollar futures were used to construct confidence intervals at relatively short horizons, but these derivatives only trade out to two years. By contrast, interest rate caps, which are among the most liquid over-the-counter fixed income derivatives, provide information about uncertainty at much longer horizons; hence, starting with this Bluebook, these derivatives are used to construct confidence intervals for the funds rate at horizons extending out six years.[1]

An interest rate cap is a sequence of call options—referred to as caplets—that insures the holder against increases in short-term interest rates above a certain level over the horizon of the cap. For example, a standard ten-year cap comprises thirty-nine quarterly caplets on three-month LIBOR, where the first caplet is linked to the realized three-month rate three months ahead, and the final caplet is linked to the realized rate 9¾ years ahead. Given prices of interest rate caps at several distinct maturities, it is feasible to compute an entire term structure of implied volatilities. Translating these estimates from three-month LIBOR to overnight federal funds requires some assumptions regarding the magnitudes of term premiums and the relative volatility of overnight versus three-month interest rates.

While interest rate caps are useful for assessing market uncertainty about policy at relatively long horizons, the confidence intervals presented in Chart 7 rest on two important assumptions that are commonly employed by options traders: Short-term interest rates are assumed to be log-normally distributed and to follow a simple autoregressive process over the life of the contract.[2] Furthermore, these confidence intervals are based solely on the prices of at-the-money options, whereas using the prices of both in- and out-of-the-money options could reveal significant information about market perceptions of skewness or heavy tails in the distribution of short-term interest rates; indeed, such information might well indicate more substantial downside risks than depicted in Chart 7. These issues are the subject of ongoing research by Board staff.

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[1] For further information regarding methodology, see the January 9, 2007 memo by Benson Durham, "Federal Funds Confidence Intervals Derived from Interest Rate Caps."

[2] Note that the log-normal assumption by construction implies that the distribution of rates is skewed somewhat toward higher rates.

Short-Run Policy Alternatives

(14) This Bluebook presents three policy alternatives for the Committee's consideration, summarized by the draft statements in Table 1. Under Alternatives A and B, the Committee would leave the federal funds rate unchanged at this meeting, while under Alternative C it would tighten policy by 25 basis points. Alternative A would reflect a judgment that the risks to economic growth and inflation are now roughly balanced. In Alternatives B and C, the accompanying statement would continue to indicate that inflation is the predominant risk, suggesting that additional firming is still more likely than policy easing in the near term. The rationale portion of all three alternatives has been trimmed some, given that the references in the December statement to prior monetary policy actions and the impetus to inflation from rising energy prices seemed stale.

(15) The implications for monetary policy of better-than-expected news on both inflation and economic growth may be seen as roughly offsetting, suggesting that the Committee has little reason to alter its current policy stance and risk assessment. If so, the Committee may be attracted to **Alternative B,** under which the federal funds rate would remain unchanged at 5¼ percent and the statement would continue to highlight concern about inflation. The Committee may see the contours of the staff projection—output running close to its potential and core inflation edging down to 2 percent by next year—as both reasonably likely and about the best possible in current circumstances. In the staff's analysis, the real federal funds rate is near the Greenbook-consistent measure of its equilibrium value (Chart 5), suggesting that the current policy stance is likely to be consistent with fostering output near potential over time. Maintaining the current policy stance would be consistent with prescriptions from both the optimal policy path simulations of the FRB/US model (Chart 6) and the first-difference rule (Chart 7), based on an assumed 2 percent inflation objective. Although the Committee may view inflation running at or above

Table 1: Alternative Language for the January FOMC Announcement				
	December 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 5¼ percent.	The Federal Open Market Committee decided today to keep its target for the federal funds rate at 5¼ percent.	The Federal Open Market Committee decided today to keep its target for the federal funds rate at 5¼ percent.	The Federal Open Market Committee decided today to raise its target for the federal funds rate by 25 basis points to 5½ percent.
Rationale	2. Economic growth has slowed over the course of the year, partly reflecting a substantial cooling of the housing market. Although recent indicators have been mixed, the economy seems likely to expand at a moderate pace on balance over coming quarters.	The economy seems likely to continue to expand at a moderate pace on balance over coming quarters. However, the substantial cooling of the housing market remains a drag on economic growth.	Although some tentative signs of stabilization have appeared in the housing market, weakness in residential construction remains a drag on economic growth. Nevertheless, supported in part by recent gains in incomes and declines in energy prices, the economy seems likely to expand at a moderate pace over coming quarters.	Economic growth seems to be rebounding and some tentative signs of stabilization have appeared in the housing market. Going forward, the economy seems likely to expand at a moderate pace over coming quarters.
	3. Readings on core inflation have been elevated, and the high level of resource utilization has the potential to sustain inflation pressures. However, inflation pressures seem likely to moderate over time, reflecting reduced impetus from energy prices, contained inflation expectations, and the cumulative effects of monetary policy actions and other factors restraining aggregate demand.	Readings on core inflation have improved modestly in recent months, and inflation pressures seem likely to moderate over time, partly reflecting the recent decline in energy prices.	Readings on core inflation have improved modestly in recent months, and inflation pressures seem likely to moderate over time. However, the high level of resource utilization has the potential to sustain inflation pressures.	Readings on core inflation have improved modestly in recent months but remain elevated. Inflation pressures seem likely to moderate over time, but the extent and speed of that moderation remain uncertain.
Assessment of Risk	4. Nonetheless, the Committee judges that some inflation risks remain. The extent and timing of any additional firming that may be needed to address these risks will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.	In these circumstances, future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.	The Committee judges that some inflation risks remain. The extent and timing of any additional firming that may be needed to address these risks will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.	The Committee judges that inflation remains the predominant concern, and consequently that in the near term policy firming is more likely than policy easing. Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.

2 percent as uncomfortably high, downside risks to employment and growth, especially given the potentially delicate state of the housing sector, may persuade the Committee to refrain from tightening at this time. If so, the Committee may continue to indicate that inflation is the predominant risk to the outlook, especially given the high rate of utilization in the labor market.

(16) In light of the flurry of stronger-than-expected economic data over the intermeeting period, the rationale paragraph in the statement under Alternative B could indicate that the economy seems likely to expand at a moderate pace. It could drop the reference to "a substantial cooling of the housing market" and note, instead, that "although some tentative signs of stabilization have appeared in the housing market, weakness in residential construction remains a drag on economic growth." With regard to inflation, the statement could acknowledge that readings on core inflation "have improved modestly in recent months," but reiterate the Committee's concern that inflation pressures remain. In its assessment of risks, the Committee could essentially repeat the language from its statement in December.

(17) Investors see virtually no chance of a policy change at this meeting, and the Desk's survey suggests that primary dealers unanimously expect that the accompanying statement will note that the Committee continues to see inflation as the dominant risk. Consequently, implementation of Alternative B is unlikely to elicit significant market reaction.

(18) In light of the improvement in the outlook for inflation during the intermeeting period and the persistence of downside risks arising from the substantial cooling of the housing market, the Committee may now judge that the risks to the attainment of its dual objectives are roughly balanced, as in **Alternative A**. Removing the bias toward further tightening would leave the Committee better positioned to respond to the adverse effects of a possible further deterioration in residential construction or spillovers to consumer spending, along the lines of the "more

extensive housing correction" alternative Greenbook scenario. Even absent such concerns, the expected path for inflation is somewhat lower than in December, implying that the real federal funds rate is poised to edge higher—a development that the Committee may view as reducing the likelihood of policy tightening in the near term. Furthermore, the Committee might see core inflation as declining faster than in the staff forecast because, for instance, it perceives less tightness in labor markets than the staff (a possibility suggested by the "lower NAIRU" alternative Greenbook scenario), or because it is more optimistic about the disinflationary impetus from lower energy and other commodity prices and the stronger foreign exchange value of the dollar.

(19) The rationale portion of Alternative A reflects the improved readings on economic growth but notes that the substantial cooling of the housing market remains a drag on the expansion. The paragraph on inflation observes that "inflation pressures seem likely to moderate over time, partly reflecting the recent decline in energy prices." To indicate the Committee's overall assessment of balanced risks, the statement then simply points to the dependence of future policy adjustments on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.

(20) Shorter-term interest rates would likely fall in response to an announcement along the lines of Alternative A, and longer-term yields might follow suit. However, if investors read the statement as suggesting that the Committee was willing to tolerate somewhat higher rates of inflation over the long haul, longer-term yields could be pushed higher and the foreign exchange value of the dollar would likely weaken.

(21) In contrast, the surprisingly strong economic performance in the fourth quarter and continued tightness in labor markets might heighten the concern of some members that the current stance of policy is likely to produce insufficient progress on inflation. If so, the Committee might judge that an additional 25 basis point increase

in the federal funds rate at this meeting, as in **Alternative C**, is warranted. Both the optimal policy path simulations of the FRB/US model (Chart 6) and the first-difference rule (Chart 7) suggest that additional firming of policy should be undertaken if the Committee wishes to achieve a long-term inflation objective of 1½ percent. With signs indicating that the housing market is stabilizing, the major downside risk to the outlook appears to be less pressing. In light of the economy's resilience over the past several quarters, the Committee may also be concerned that the recent rebound in personal consumption expenditures may prove more persistent than in the staff projection (as in the "buoyant consumer spending" alternative Greenbook scenario), suggesting that the current stance of policy may not prevent the economy from stretching its resource use tighter. In these circumstances, and with core inflation uncomfortably high, a slight policy firming at this meeting may be seen as both appropriate to ensure that the modest improvement in core inflation in recent months is not reversed and as desirable to signal the Committee's resolve to foster a further decline.

(22) Under Alternative C, the paragraph on economic activity in the rationale section notes the improvement in economic growth and observes that the housing market may be stabilizing. The announcement also points out that, despite modest improvements, readings on core inflation remain elevated and that the extent and speed of further moderation in inflation remains uncertain. In its assessment of risks, the Committee would once again indicate that inflation risks are the predominant concern, but could omit the clause referring to "the extent and timing of any additional firming" in the last sentence. Instead, the statement would note that "in the near term policy firming is more likely than policy easing," which may better reflect the Committee's views regarding the range of likely outcomes about the direction of policy, especially following a firming at this meeting and the change in other forward-looking language.

(23) The choice of Alternative C would stun market participants, leading to an upward revision of their short-term outlook for the path of policy and a significant rise in short- and intermediate-term interest rates. Longer-term rates would likely step up, especially if market participants became concerned that the inflation outlook is less benign than they had thought. That said, by reaffirming the Committee's determination to reduce inflation, this policy action might also lead market participants to expect a more rapid decline in inflation and possibly even to revise downward their perceptions of the Committee's long-term inflation objective. If this is the case, long-term forward rates might decline and the foreign exchange value of the dollar could strengthen.

Money and Debt Forecasts

(24) Under the Greenbook forecast, M2 is expected to grow about 5½ percent in 2007 and 5 percent in 2008, close to the rates projected in December. Opportunity costs edge down this year, as deposit rates continue to catch up to earlier increases in short-term interest rates. As a result, M2 grows faster than nominal income in 2007. In 2008, opportunity costs are about flat and M2 grows broadly in line with nominal income. In the forecast, continuing rapid growth in retail money funds offsets more sluggish growth in small time deposits, while liquid deposits expand moderately, on net. Currency growth continues to be restrained by weak foreign demand.

(25) The growth of domestic nonfinancial sector debt is projected to fall from about 7¾ percent last year to 6½ percent in 2007 and to about 6 percent in 2008. In the household sector, the weakness in housing prices continues to dampen mortgage borrowing over the forecast horizon. Corporate debt is also projected to slow appreciably, as the strong merger-related debt issuance seen last year wanes. With the unified budget deficit expected to widen, federal debt growth is projected to pick up this year and next.

Table 2
Alternative Growth Rates for M2
(percent, annual rate)

		No Change/ Greenbook Forecast*	25 bp Tightening
Monthly Growth Rates			
	Oct-06	8.7	8.7
	Nov-06	7.1	7.1
	Dec-06	7.6	7.6
	Jan-07	9.0	9.0
	Feb-07	6.0	5.6
	Mar-07	4.5	3.7
	Apr-07	5.5	4.7
	May-07	4.3	3.6
	Jun-07	3.5	3.0
Quarterly Growth Rates			
	2006 Q1	5.4	5.4
	2006 Q2	3.3	3.3
	2006 Q3	4.2	4.2
	2006 Q4	6.8	6.8
	2007 Q1	7.3	7.2
	2007 Q2	4.9	4.2
	2007 Q3	4.8	4.3
	2007 Q4	4.8	4.5
Annual Growth Rates			
	2006	5.0	5.0
	2007	5.5	5.1
	2008	5.0	5.0
Growth From	To		
Jan-07	Mar-07	5.3	4.7
Jan-07	Jun-07	4.8	4.1
2006 Q4	Mar-07	6.8	6.5
2006 Q4	Jun-07	5.8	5.4

* No change in the target federal funds rate at this meeting. This forecast is consistent with nominal GDP and interest rates in the Greenbook forecast.

Directive and Balance of Risks Statement

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

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 _____ ~~5¼~~ percent.

Risk Assessments

A. In these circumstances, future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.

B. The Committee judges that some inflation risks remain. The extent and timing of any additional firming that may be needed to address these risks will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.

C. The Committee judges that inflation remains the predominant concern, and consequently that in the near term policy firming is more likely than policy easing. Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.

Appendix A: Measures of the Equilibrium Real Rate

The equilibrium real rate is the real federal funds rate that, if maintained, would be projected to return output to its potential level over time. The short-run equilibrium rate is defined as the rate that would close the output gap in twelve quarters given the corresponding model's projection of the economy. The medium-run concept is the value of the real federal funds rate projected to keep output at potential in seven years, under the assumption that monetary policy acts to bring actual and potential output into line in the short run and then keeps them equal thereafter. The TIPS-based factor model measure provides an estimate of market expectations for the real federal funds rate seven years ahead.

The actual real federal funds rate is constructed as the difference between the nominal rate and realized inflation, where the nominal rate is measured as the quarterly average of the observed federal funds rate, and realized inflation is given by the log difference between the staff's estimate of the core PCE price index and its lagged value four quarters earlier. For the current quarter, the nominal rate is specified as the target federal funds rate on the Bluebook publication date.

Confidence intervals reflect uncertainties about model specification, coefficients, and the level of potential output. The final column of the table indicates the values for the current quarter based on the estimation for the previous Bluebook, except that the TIPS-based measure and the actual real funds rate are the values published in the previous Bluebook.

Measure	Description
Single-equation Model	The measure of the equilibrium real rate in the single-equation model is based on an estimated aggregate-demand relationship between the current value of the output gap and its lagged values as well as the lagged values of the real federal funds rate.
Small Structural Model	The small-scale model of the economy consists of equations for five variables: the output gap, the equity premium, the federal budget surplus, the trend growth rate of output, and the real bond yield.
Large Model (FRB/US)	Estimates of the equilibrium real rate using FRB/US—the staff's large-scale econometric model of the U.S. economy—depend on a very broad array of economic factors, some of which take the form of projected values of the model's exogenous variables.
Greenbook-consistent	The FRB/US model is used in conjunction with an extended version of the Greenbook forecast to derive a Greenbook-consistent measure. FRB/US is first add-factored so that its simulation matches the extended Greenbook forecast, and then a second simulation is run off this baseline to determine the value of the real federal funds rate that closes the output gap.
TIPS-based Factor Model	Yields on TIPS (Treasury Inflation-Protected Securities) reflect investors' expectations of the future path of real interest rates, but also include term and liquidity premiums. The TIPS-based measure of the equilibrium real rate is constructed using the seven-year-ahead instantaneous real forward rate derived from TIPS yields as of the Bluebook publication date. This forward rate is adjusted to remove estimates of the term and liquidity premiums based on a three-factor arbitrage-free term-structure model applied to TIPS yields, nominal yields, and inflation. Because TIPS indexation is based on the total CPI, this measure is also adjusted for the medium-term difference—projected at 40 basis points—between total CPI inflation and core PCE inflation.

Appendix B: Analysis of Policy Paths and Confidence Intervals

Rule Specifications: For the following rules, i_t denotes the federal funds rate for quarter t, while the explanatory variables include the staff's projection of trailing four-quarter core PCE inflation (π_t), inflation two and three quarters ahead ($\pi_{t+2|t}$ and $\pi_{t+3|t}$), the output gap in the current period and one quarter ahead ($y_t - y_t^*$ and $y_{t+1|t} - y_{t+1|t}^*$), and the three-quarter-ahead forecast of annual average GDP growth relative to potential ($\Delta^4 y_{t+3|t} - \Delta^4 y_{t+3|t}^*$), and π^* denotes an assumed value of policymakers' long-run inflation objective. The outcome-based and forecast-based rules were estimated using real-time data over the sample 1988:1-2005:4; each specification was chosen using the Bayesian information criterion. Each rule incorporates a 75 basis point shift in the intercept, specified as a sequence of 25 basis point increments during the first three quarters of 1998. The first two simple rules were proposed by Taylor (1993, 1999), while the third is a variant of the Taylor (1999) rule—introduced in the August Bluebook—with a higher value of r^*. The prescriptions of the first-difference rule do not depend on assumptions regarding r^* or the level of the output gap; see Orphanides (2003).

Outcome-based rule	$i_t = 1.17 i_{t-1} - 0.37 i_{t-2} + 0.20[1.04 + 1.76\,\pi_t + 3.32(y_t - y_t^*) - 2.37(y_{t-1} - y_{t-1}^*)]$
Forecast-based rule	$i_t = 1.16 i_{t-1} - 0.36 i_{t-2} + 0.20[0.89 + 1.74\,\pi_{t+2\|t} + 2.32(y_{t+1\|t} - y_{t+1\|t}^*) - 1.40(y_{t-1} - y_{t-1}^*)]$
Taylor (1993) rule	$i_t = 2 + \pi_t + 0.5(\pi_t - \pi^*) + 0.5(y_t - y_t^*)$
Taylor (1999) rule	$i_t = 2 + \pi_t + 0.5(\pi_t - \pi^*) + (y_t - y_t^*)$
Taylor (1999) rule with higher r^*	$i_t = 2.75 + \pi_t + 0.5(\pi_t - \pi^*) + (y_t - y_t^*)$
First-difference rule	$i_t = i_{t-1} + 0.5(\pi_{t+3\|t} - \pi^*) + 0.5(\Delta^4 y_{t+3\|t} - \Delta^4 y_{t+3\|t}^*)$

FRB/US Model Simulations: Prescriptions from the two empirical rules are computed using dynamic simulations of the FRB/US model, implemented as though the rule is followed starting at this FOMC meeting. This quarter's prescription is a weighted average of the actual value of the federal funds rate thus far this quarter and the value obtained from the FRB/US model simulations using the timing of this meeting within the quarter to determine the weights. Confidence intervals are based on stochastic simulations of the FRB/US model with shocks drawn from the estimated residuals over 1986-2005.

Information from Financial Markets: The expected funds rate path is based on forward rate agreements, and the confidence intervals for this path are constructed using prices of interest rate caps.

Near-Term Prescriptions of Simple Policy Rules: These prescriptions are calculated using Greenbook projections for inflation and the output gap. Because the first-difference rule involves the lagged funds rate, the value labeled "Previous Bluebook" for the current quarter is computed using the actual value of the lagged funds rate, and the one-quarter-ahead prescriptions are based on this rule's prescription for the current quarter.

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———— (1999). "A Historical Analysis of Monetary Policy Rules," in John B. Taylor, ed., *Monetary Policy Rules*. The University of Chicago Press, pp. 319-341.

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Appendix C Table 1

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	20-year	5-year	10-year			Fixed-rate	ARM
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
05 -- High	4.30	4.01	4.08	4.37	4.49	4.30	4.52	4.59	4.79	5.04	2.11	2.22	6.48	5.24	6.37	5.22
-- Low	2.19	1.86	2.31	2.63	2.50	2.24	3.11	3.58	3.97	4.28	0.98	1.50	5.64	4.72	5.53	4.10
06 -- High	5.34	5.27	5.13	5.33	5.50	5.32	5.32	5.20	5.32	5.45	2.63	2.68	6.94	5.31	6.80	5.83
-- Low	4.22	3.91	4.17	4.37	4.50	4.22	4.34	4.28	4.42	4.59	1.82	1.94	6.08	4.52	6.10	5.15
Monthly																
Jan 06	4.29	4.10	4.34	4.47	4.56	4.36	4.42	4.35	4.50	4.67	1.92	2.03	6.24	5.11	6.15	5.17
Feb 06	4.49	4.38	4.54	4.69	4.72	4.47	4.69	4.60	4.66	4.75	1.97	2.06	6.27	5.12	6.25	5.34
Mar 06	4.59	4.55	4.63	4.79	4.88	4.61	4.77	4.72	4.82	4.93	2.08	2.21	6.41	5.10	6.32	5.42
Apr 06	4.79	4.60	4.72	4.90	5.03	4.80	4.92	4.90	5.07	5.24	2.25	2.41	6.68	5.19	6.51	5.62
May 06	4.94	4.69	4.84	5.01	5.15	4.95	5.00	4.98	5.19	5.36	2.26	2.45	6.75	5.24	6.60	5.63
Jun 06	4.99	4.71	4.92	5.18	5.35	5.12	5.15	5.04	5.18	5.30	2.41	2.54	6.78	5.24	6.68	5.71
Jul 06	5.24	4.89	5.08	5.27	5.46	5.24	5.15	5.02	5.15	5.26	2.43	2.52	6.76	5.21	6.76	5.79
Aug 06	5.25	5.17	5.09	5.17	5.38	5.22	4.93	4.79	4.94	5.09	2.24	2.32	6.59	4.98	6.52	5.64
Sep 06	5.25	4.76	4.93	5.08	5.34	5.21	4.78	4.64	4.80	4.94	2.35	2.35	6.43	4.82	6.40	5.56
Oct 06	5.25	4.97	5.05	5.12	5.33	5.20	4.81	4.66	4.80	4.95	2.49	2.43	6.42	4.78	6.36	5.55
Nov 06	5.25	5.22	5.07	5.15	5.32	5.21	4.74	4.54	4.66	4.79	2.39	2.30	6.20	4.59	6.24	5.51
Dec 06	5.24	4.86	4.98	5.07	5.32	5.23	4.68	4.50	4.63	4.79	2.27	2.27	6.22	4.54	6.14	5.45
Weekly																
Nov 24 06	5.24	5.24	5.06	5.15	5.32	5.21	4.75	4.53	4.64	4.77	2.40	2.32	6.18	4.60	6.18	5.49
Dec 1 06	5.27	5.25	5.04	5.11	5.31	5.21	4.64	4.44	4.56	4.70	2.23	2.20	6.12	4.55	6.14	5.46
Dec 8 06	5.24	4.95	4.99	5.05	5.30	5.20	4.57	4.41	4.55	4.71	2.16	2.16	6.13	4.53	6.11	5.43
Dec 15 06	5.25	4.84	4.94	5.07	5.31	5.21	4.69	4.49	4.63	4.78	2.23	2.23	6.21	4.52	6.12	5.45
Dec 22 06	5.24	4.82	4.97	5.08	5.32	5.25	4.72	4.52	4.67	4.83	2.33	2.34	6.26	4.53	6.13	5.44
Dec 29 06	5.23	4.74	5.00	5.10	5.32	5.25	4.80	4.61	4.74	4.88	2.42	2.42	6.32	4.56	6.18	5.47
Jan 5 07	5.22	4.79	5.05	5.09	5.32	5.23	4.78	4.61	4.73	4.86	2.38	2.39	6.27	4.50	6.18	5.42
Jan 12 07	5.24	4.92	5.09	5.14	5.32	5.24	4.84	4.66	4.77	4.89	2.44	2.46	6.29	4.55	6.21	5.44
Jan 19 07	5.24	4.97	5.12	5.16	5.32	5.20	4.90	4.73	4.84	4.96	2.51	2.49	6.35	4.55	6.23	5.51
Jan 26 07	--	4.98	5.14	5.18	5.32	5.20	4.94	4.78	4.88	5.01	2.46	2.44	--	--	6.25	5.49
Daily																
Jan 9 07	5.25	4.90	5.08	5.13	5.31	5.26	4.80	4.61	4.73	4.84	2.40	2.41	6.25	--	--	--
Jan 10 07	5.26	4.94	5.09	5.13	5.32	5.23	4.83	4.64	4.76	4.88	2.43	2.44	6.28	--	--	--
Jan 11 07	5.27	4.98	5.11	5.15	5.32	5.19	4.88	4.70	4.81	4.93	2.49	2.50	6.33	--	--	--
Jan 12 07	5.22	4.97	5.09	5.15	5.32	5.24	4.89	4.73	4.84	4.97	2.51	2.53	6.36	--	--	--
Jan 15 07	5.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Jan 16 07	5.28	4.98	5.11	5.16	5.31	5.20	4.87	4.71	4.82	4.95	2.50	2.49	6.34	--	--	--
Jan 17 07	5.25	5.01	5.12	5.16	5.32	5.21	4.92	4.75	4.86	4.99	2.52	2.52	6.37	--	--	--
Jan 18 07	5.23	4.96	5.12	5.16	5.32	5.20	4.89	4.72	4.82	4.95	2.51	2.48	6.33	--	--	--
Jan 19 07	5.25	4.94	5.14	5.17	5.32	--	4.92	4.75	4.85	4.97	2.50	2.48	6.35	--	--	--
Jan 22 07	5.24	4.95	5.13	5.18	5.31	5.19	4.91	4.73	4.83	4.95	2.47	2.44	6.33	--	--	--
Jan 23 07	5.26	5.02	5.14	5.18	5.32	5.23	4.95	4.78	4.88	5.01	2.45	2.45	6.38	--	--	--
Jan 24 07	5.27	4.99	5.13	5.17	5.32	5.19	4.93	4.78	4.88	5.02	2.44	2.43	6.38	--	--	--
Jan 25 07	5.27 p	4.96	5.14	5.18	5.32	--	4.98	4.83	4.93	5.07	2.50	2.49	--	--	--	--

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.

p - preliminary data

Appendix C Table 2

Money Aggregates

Seasonally Adjusted

Period	M1	M2	Nontransactions Components in M2
	1	2	3
Annual growth rates (%):			
Annually (Q4 to Q4)			
2004	5.4	5.4	5.3
2005	0.3	4.1	5.1
2006	-0.5	5.0	6.4
Quarterly (average)			
2006-Q1	1.3	5.4	6.4
Q2	0.5	3.3	4.0
Q3	-3.5	4.2	6.2
Q4	-0.1	6.8	8.5
Monthly			
2006-Jan.	5.0	8.0	8.7
Feb.	-3.2	4.2	6.1
Mar.	7.5	3.3	2.3
Apr.	-3.2	3.4	5.1
May	6.3	1.9	0.8
June	-10.2	4.5	8.3
July	-3.8	4.3	6.4
Aug.	0.4	4.9	6.0
Sep.	-6.6	4.0	6.7
Oct.	4.6	8.7	9.7
Nov.	1.1	7.1	8.5
Dec.	-4.1	7.6	10.4
2007-Jan. e	8.3	9.0	9.2
Levels ($billions):			
Monthly			
2006-Aug.	1371.5	6863.4	5491.8
Sep.	1363.9	6886.5	5522.6
Oct.	1369.1	6936.2	5567.1
Nov.	1370.4	6977.0	5606.5
Dec.	1365.7	7021.0	5655.3
Weekly			
2006-Dec. 4	1378.0	6993.1	5615.1
11	1367.9	7003.8	5635.9
18	1364.4	7014.6	5650.2
25	1374.5	7043.4	5668.9
2007-Jan. 1	1358.0	7060.8	5702.7
8p	1363.3	7057.2	5693.9
15p	1378.1	7075.5	5697.4

p preliminary
e estimated

Appendix C Table 3

Changes in System Holdings of Securities [1]

(Millions of dollars, not seasonally adjusted)

January 25, 2007

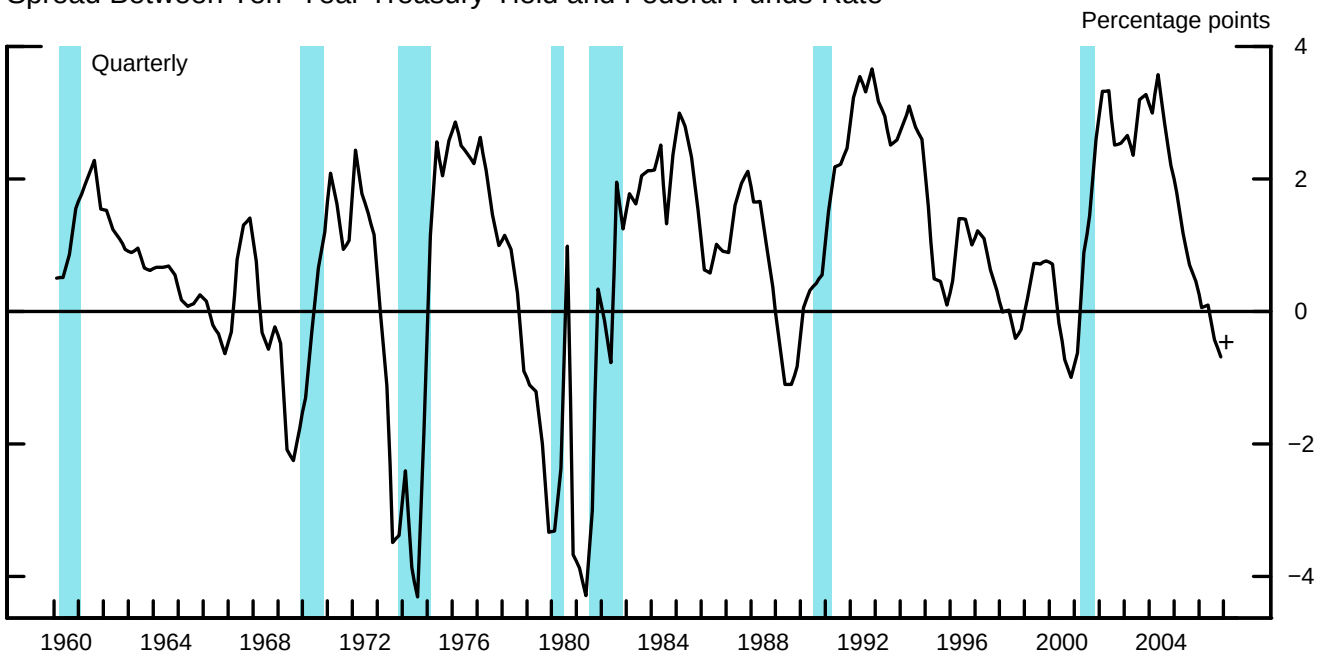
	Treasury Bills			Treasury Coupons						Federal Agency	Net change total outright	Net RPs [5]		
	Net Purchases [2]	Redemptions (-)	Net Change	Net Purchases [3] < 1	1-5	5-10	Over 10	Redemptions (-)	Net Change	Redemptions (-)	holdings [4]	Short-Term [6]	Long-Term [7]	Net Change
2004	18,138	---	18,138	7,994	17,249	5,763	1,364	---	32,370	---	50,507	-2,522	-331	-2,853
2005	8,300	---	8,300	2,894	11,309	3,626	2,007	2,795	17,041	---	25,341	-2,415	-192	-2,607
2006	5,748	---	5,748	4,967	26,354	4,322	3,299	10,552	28,390	---	34,138	-2,062	-556	-2,618
2005 QIV	1,512	---	1,512	1,596	2,789	800	902	189	5,897	---	7,410	-1,202	-1,293	-2,496
2006 QI	4,099	---	4,099	1,200	7,443	1,704	1,219	1,321	10,245	---	14,345	793	1,839	2,631
QII	---	---	---	1,375	6,063	1,181	---	1,217	7,402	---	7,402	-627	-4,413	-5,040
QIII	1,649	---	1,649	415	3,323	548	228	3,931	583	---	2,232	-3,229	-839	-4,068
QIV	---	---	---	1,977	9,525	889	1,852	4,084	10,159	---	10,159	-2,379	4,848	2,469
2006 May	---	---	---	1,375	2,317	101	---	1,217	2,576	---	2,576	-756	2,511	1,755
Jun	---	---	---	---	2,650	1,080	---	---	3,730	---	3,730	-2,633	-2,077	-4,710
Jul	1,649	---	1,649	---	549	---	---	3,931	-3,382	---	-1,733	-909	110	-800
Aug	---	---	---	415	1,454	---	---	---	1,869	---	1,869	-231	548	318
Sep	---	---	---	---	1,320	548	228	---	2,096	---	2,096	-469	-2,291	-2,761
Oct	---	---	---	1,757	1,395	33	---	3,749	-564	---	-564	-2,037	1,195	-842
Nov	---	---	---	220	3,151	411	780	335	4,227	---	4,227	-1,370	7,639	6,268
Dec	---	---	---	---	4,979	445	1,072	---	6,496	---	6,496	2,851	-155	2,696
2006 Nov 1	---	---	---	---	1,430	---	---	---	1,430	---	1,430	-3,702	2,000	-1,702
Nov 8	---	---	---	---	173	311	10	---	494	---	494	1,900	-1,000	900
Nov 15	---	---	---	---	---	---	---	335	-335	---	-335	-1,060	3,000	1,940
Nov 22	---	---	---	220	1,548	100	---	---	1,868	---	1,868	-397	7,857	7,460
Nov 29	---	---	---	---	---	---	770	---	770	---	770	4,360	-857	3,503
Dec 6	---	---	---	---	878	445	324	---	1,647	---	1,647	203	-4,000	-3,797
Dec 13	---	---	---	---	1,430	---	---	---	1,430	---	1,430	-3,095	-3,000	-6,095
Dec 20	---	---	---	---	1,329	---	748	---	2,077	---	2,077	8,005	-3,000	5,005
Dec 27	---	---	---	---	1,342	---	---	---	1,342	---	1,342	-6,860	10,000	3,140
2007 Jan 3	---	---	---	---	---	---	---	---	---	---	---	6,785	2,000	8,785
Jan 10	---	---	---	---	---	---	---	---	---	---	---	-5,400	-9,000	-14,400
Jan 17	---	---	---	---	---	---	---	---	---	---	---	1,101	-1,000	101
Jan 24	---	---	---	---	---	---	---	---	---	---	---	-4,817	-3,000	-7,817
2007 Jan 25	---	---	---	---	---	---	---	---	---	---	---	3,482	---	3,482
Intermeeting Period														
Dec 12-Jan 25	---	---	---	---	2,671	---	748	---	3,419	---	3,419	-313	-4,000	-4,313
Memo: LEVEL (bil. $)														
Jan 25			277.0	128.9	222.7	69.8	80.5		501.9	---	778.9	-21.9	15.0	-6.9

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:BEW

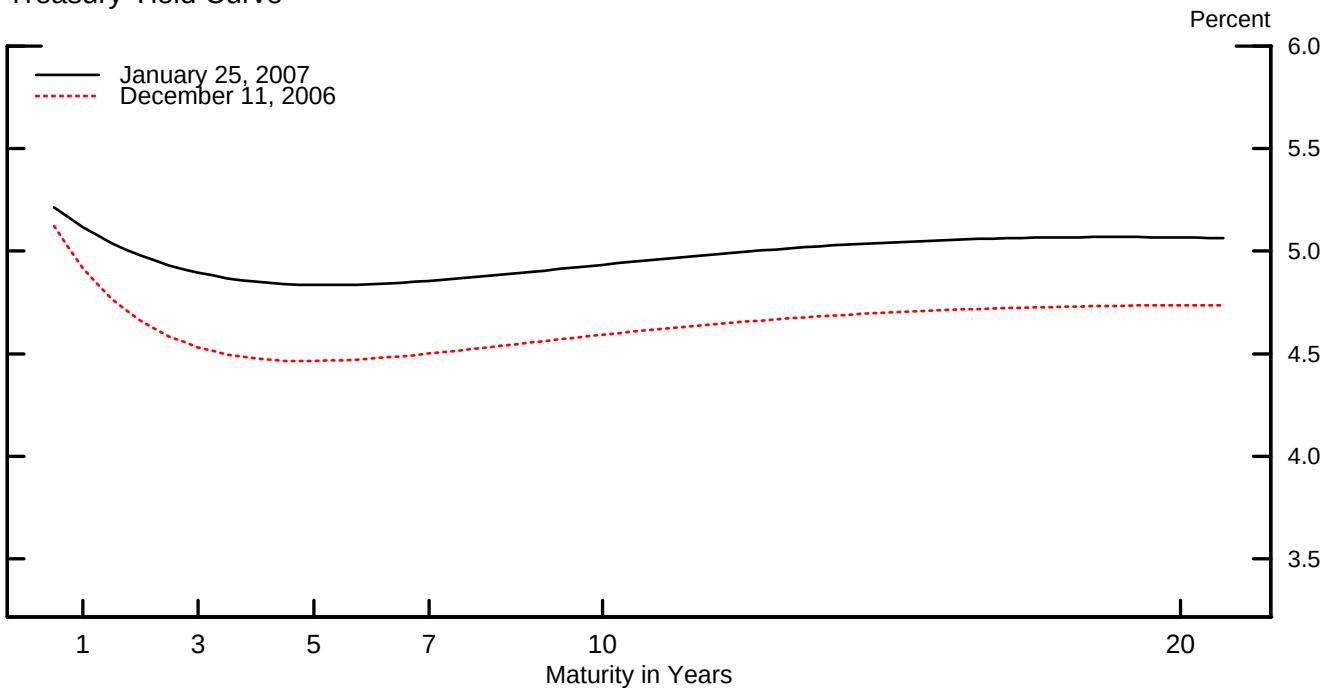
Treasury Yield Curve

Spread Between Ten−Year Treasury Yield and Federal Funds Rate



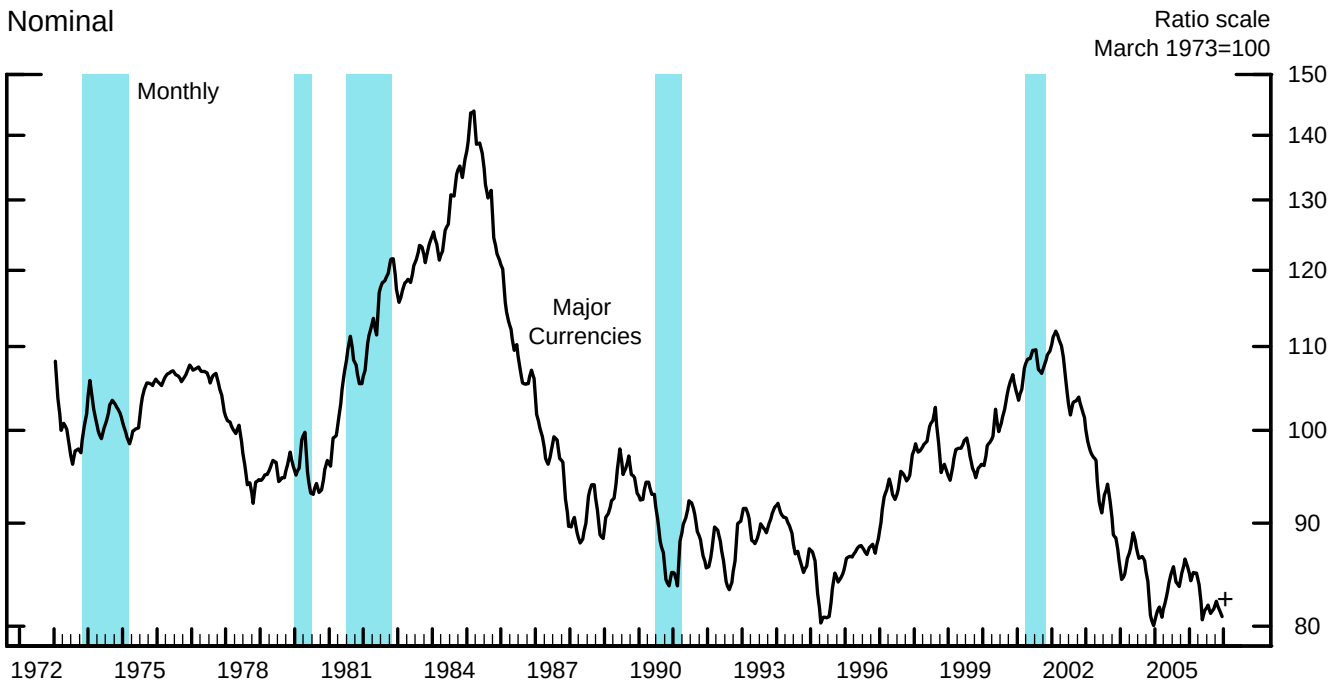
+ Denotes most recent weekly value.
Note. Blue shaded regions denote NBER−dated recessions.

Treasury Yield Curve*

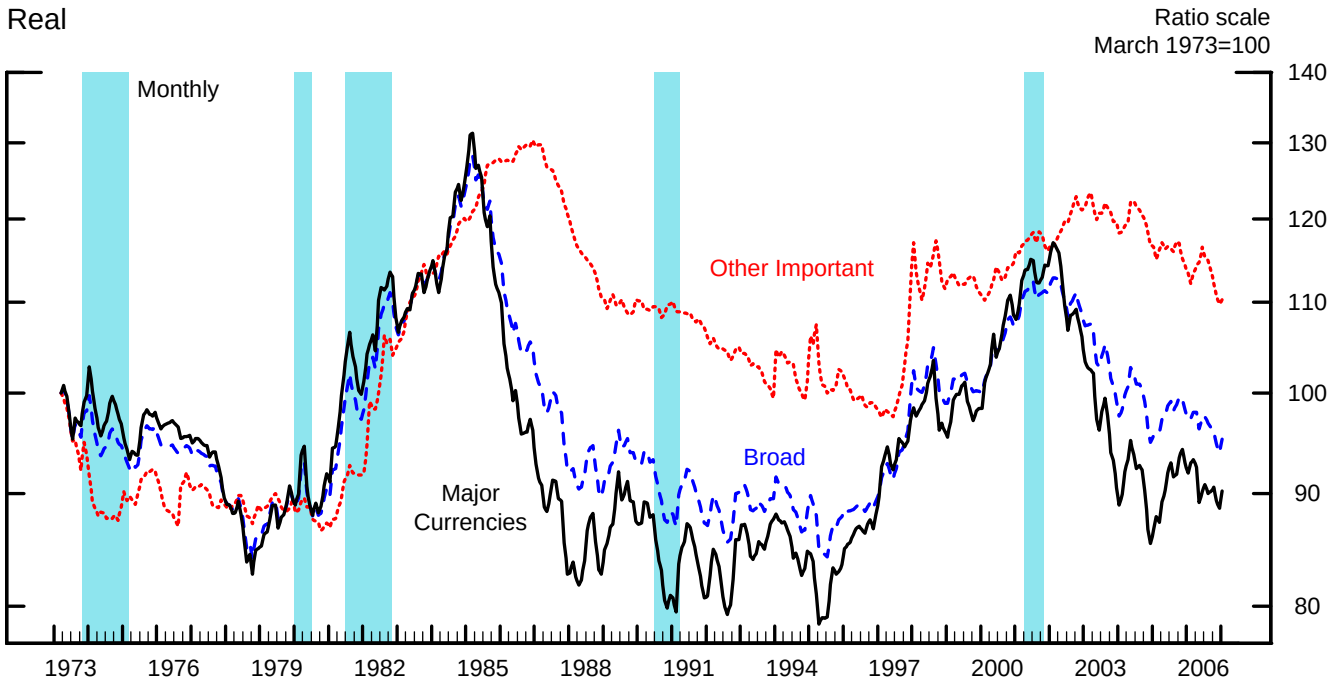


*Smoothed yield curve estimated from off−the−run Treasury coupon securities. Yields shown are those on notional par Treasury securities with semi−annual coupons.

Dollar Exchange Rate Indexes

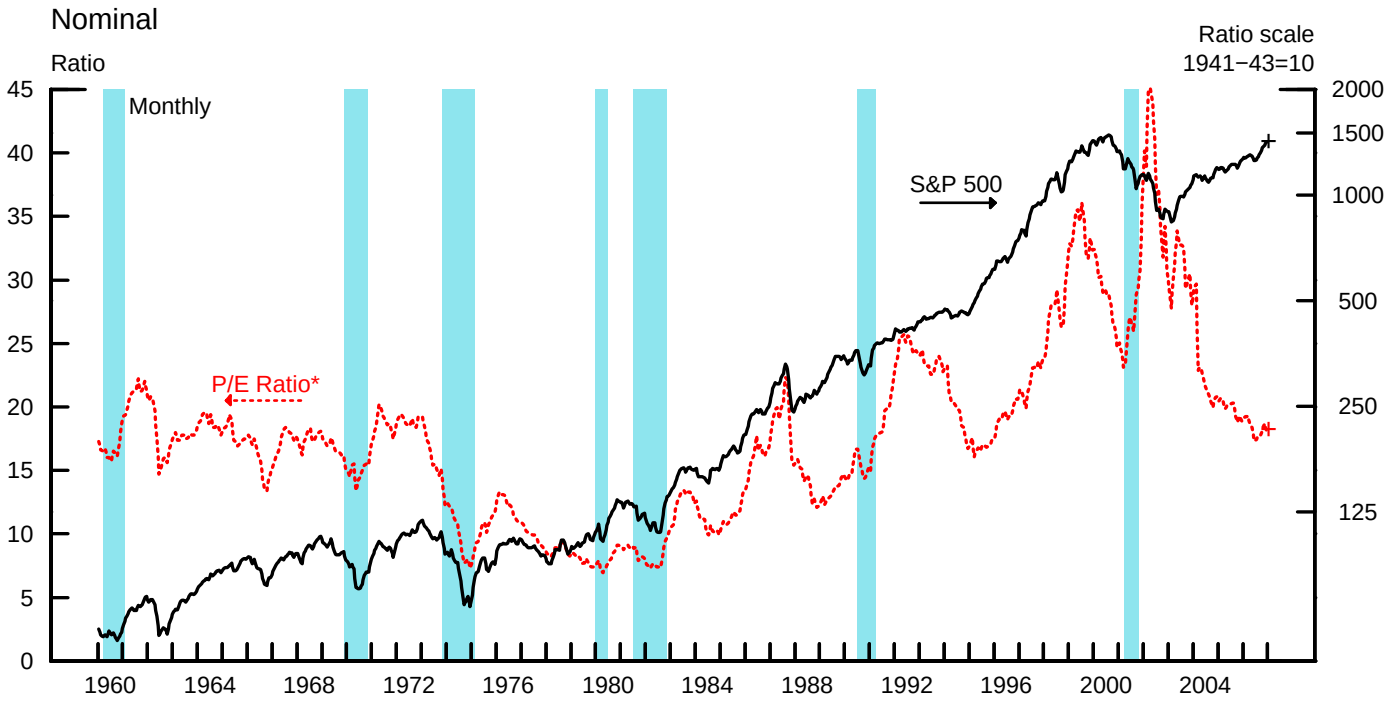


+ Denotes most recent weekly value.

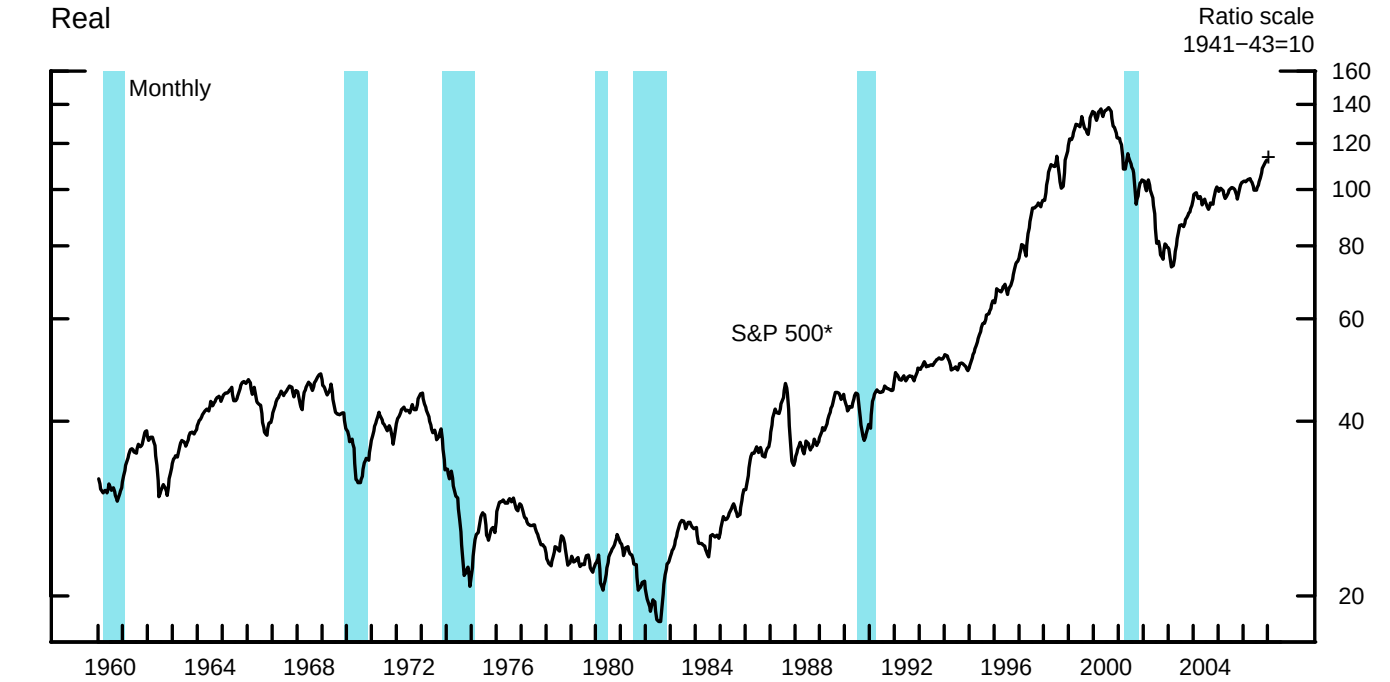


Note. The major currencies index is the trade−weighted average of currencies of the euro area, Canada, Japan, the U.K., Switzerland, Australia, and Sweden. The other important trading partners index is the trade−weighted average of currencies of 19 other important trading partners. The Broad index is the trade−weighted average of currencies of all important trading partners. Real indexes have been adjusted for relative changes in U.S. and foreign consumer prices. Blue shaded regions denote NBER−dated recessions.

Stock Indexes



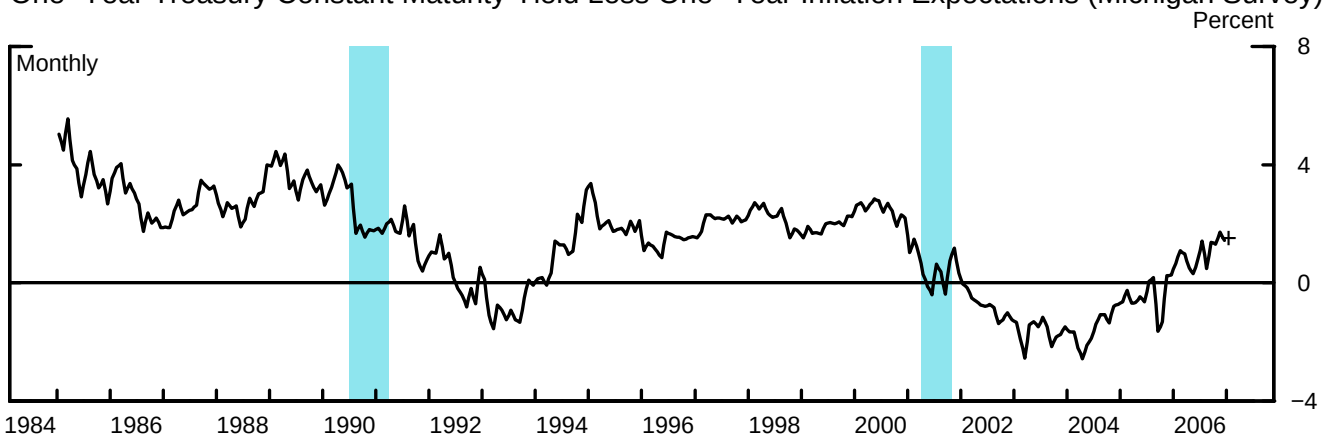
* Based on trailing four−quarter earnings.
\+ Denotes most recent weekly value.



* Deflated by the CPI.
\+ Denotes most recent weekly value.
Note. Blue shaded regions denote NBER−dated recessions.

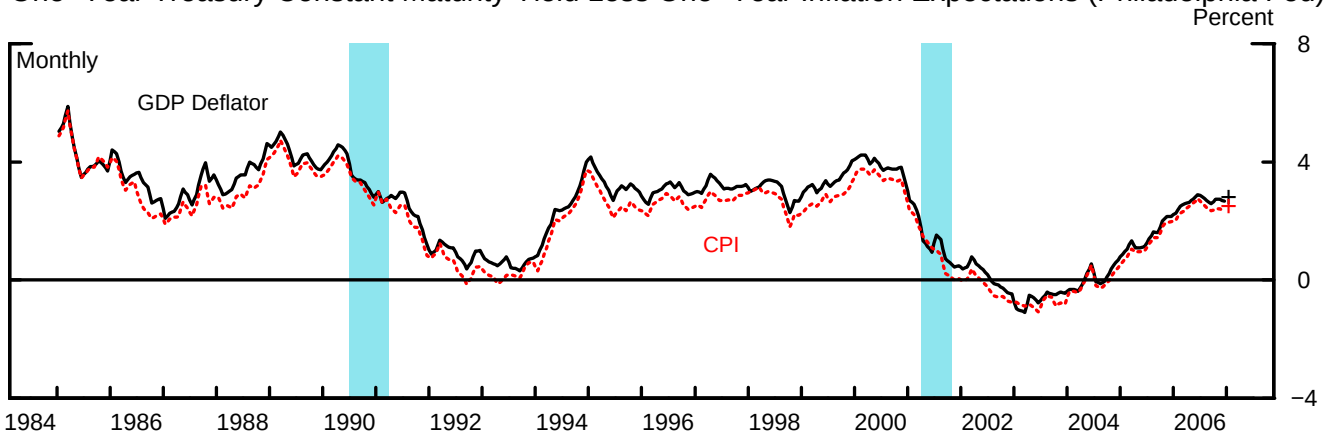
One−Year Real Interest Rates

One−Year Treasury Constant Maturity Yield Less One−Year Inflation Expectations (Michigan Survey)*



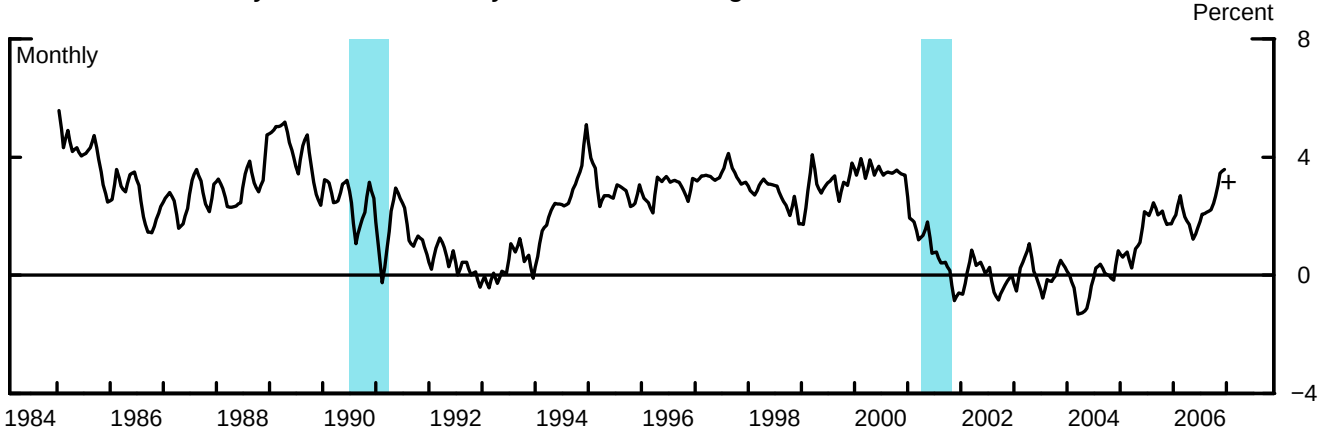
* Mean value of respondents.

One−Year Treasury Constant Maturity Yield Less One−Year Inflation Expectations (Philadelphia Fed)*



* ASA/NBER quarterly survey until 1990:Q1; Philadelphia Federal Reserve Bank Survey of Professional Forecasters thereafter. Median value of respondents.

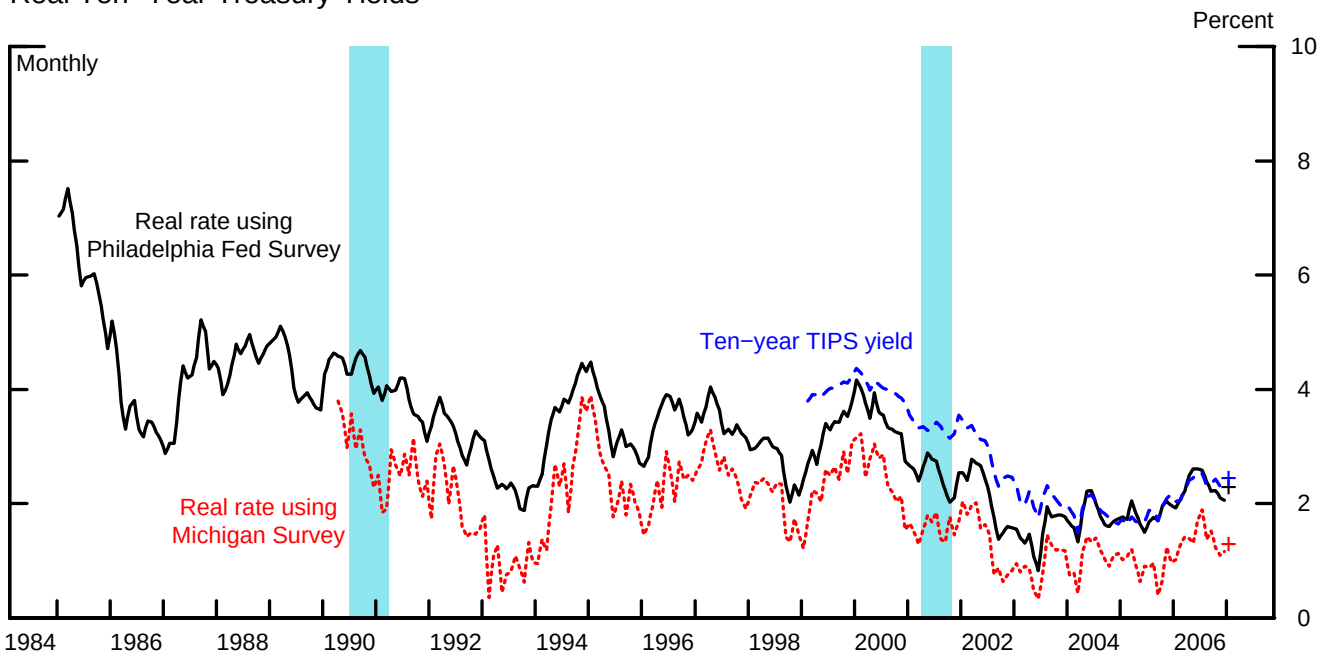
One−Year Treasury Constant Maturity Yield Less Change in the Core CPI from Three Months Prior



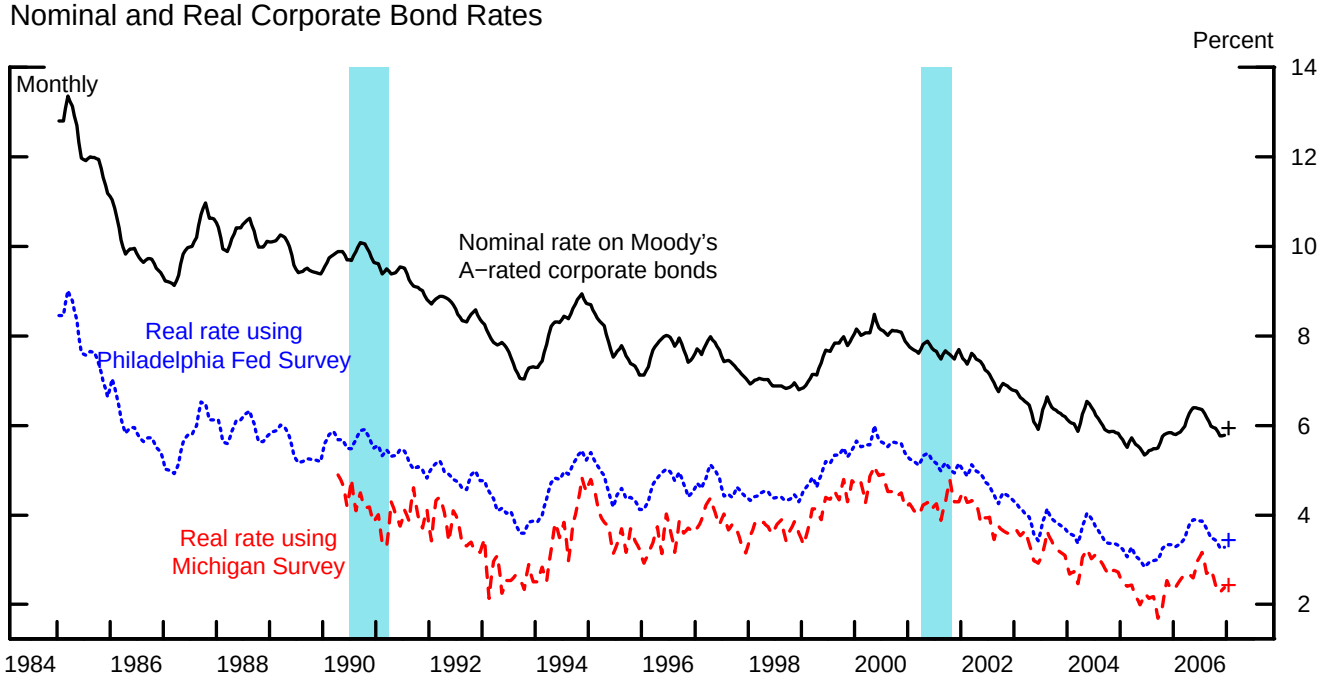
+ Denotes most recent weekly Treasury constant maturity yield less most recent inflation expectation.
Note. Blue shaded regions denote NBER−dated recessions.

Long−Term Real Interest Rates*

Real Ten−Year Treasury Yields



Nominal and Real Corporate Bond Rates

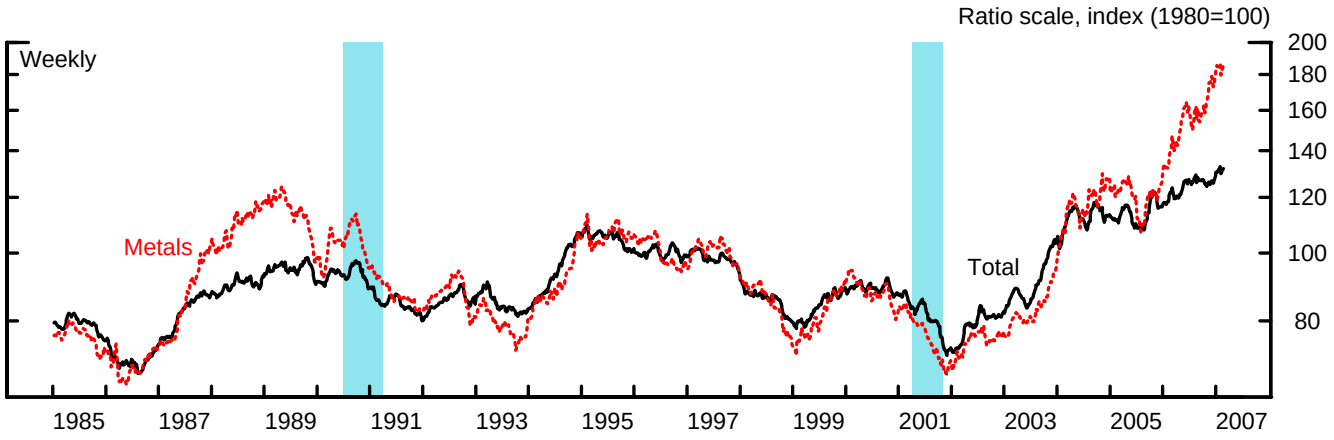


* For real rates, measures using the Philadelphia Fed Survey employ the ten−year inflation expectations from the Blue Chip Survey until April 1991 and the Philadelphia Federal Reserve Bank Survey of Professional Forecasters thereafter (median value of respondents). Measures using the Michigan Survey employ the five− to ten−year inflation expectations from that survey (mean value of respondents).

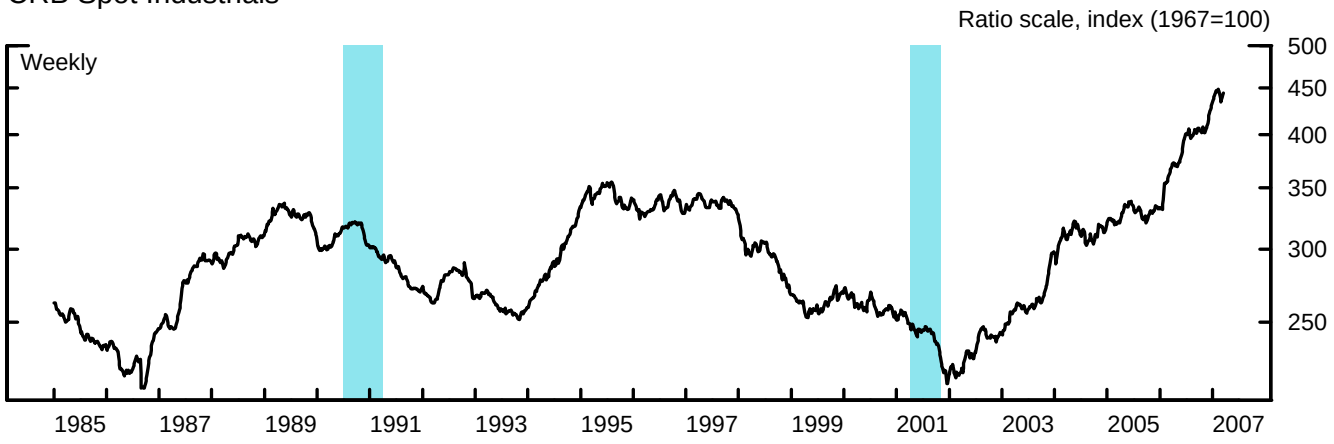
+ For TIPS and nominal corporate rate, denotes the most recent weekly value. For other real rate series, denotes the most recent weekly nominal yield less the most recent inflation expectation.
Note. Blue shaded regions denote NBER−dated recessions.

Commodity Price Measures

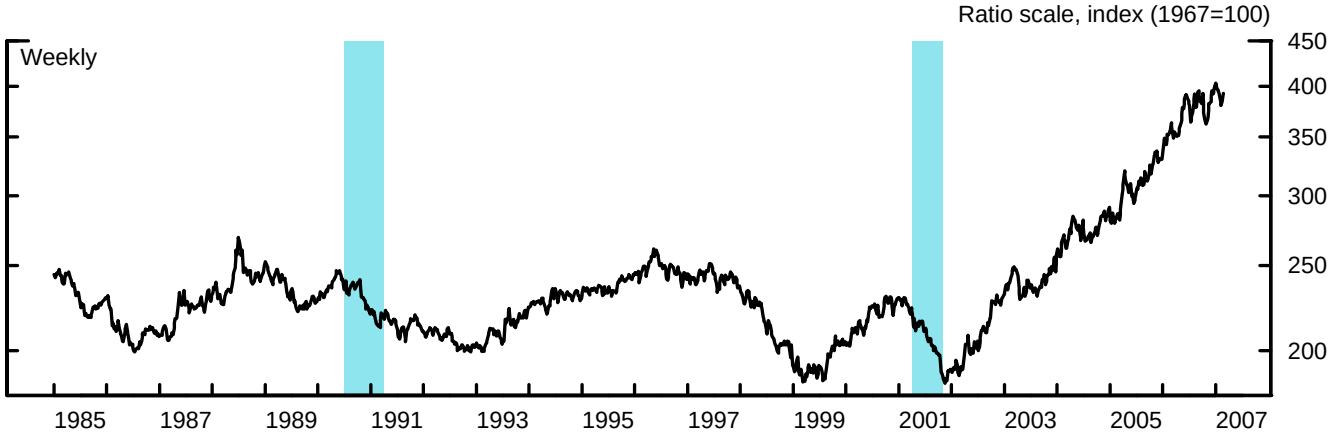
Journal of Commerce Index



CRB Spot Industrials



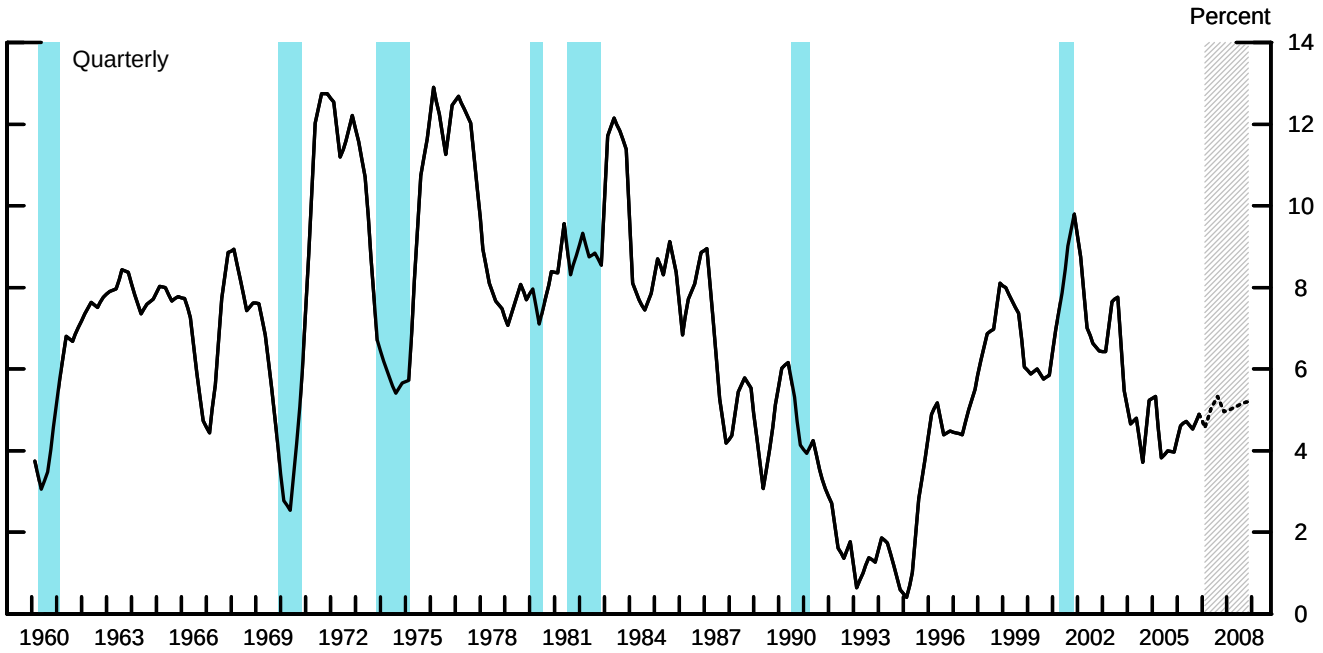
CRB Futures



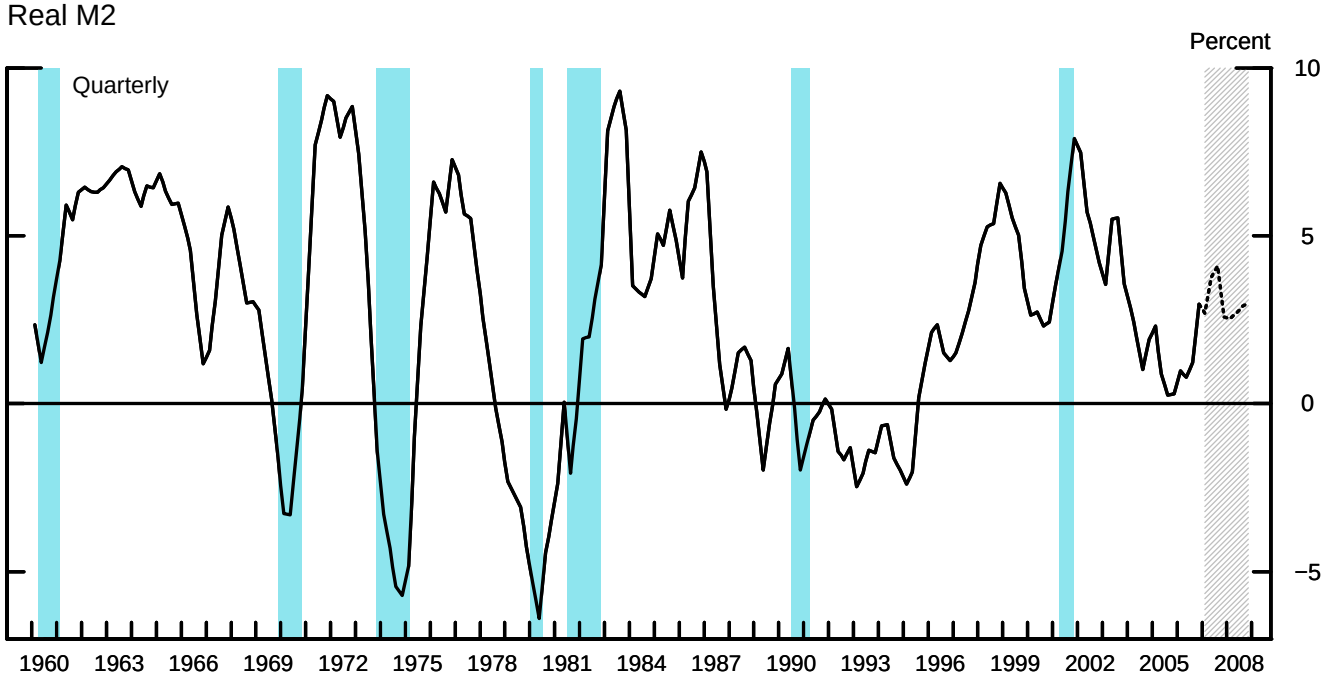
Note. Blue shaded regions denote NBER−dated recessions.

Growth of M2

Nominal M2

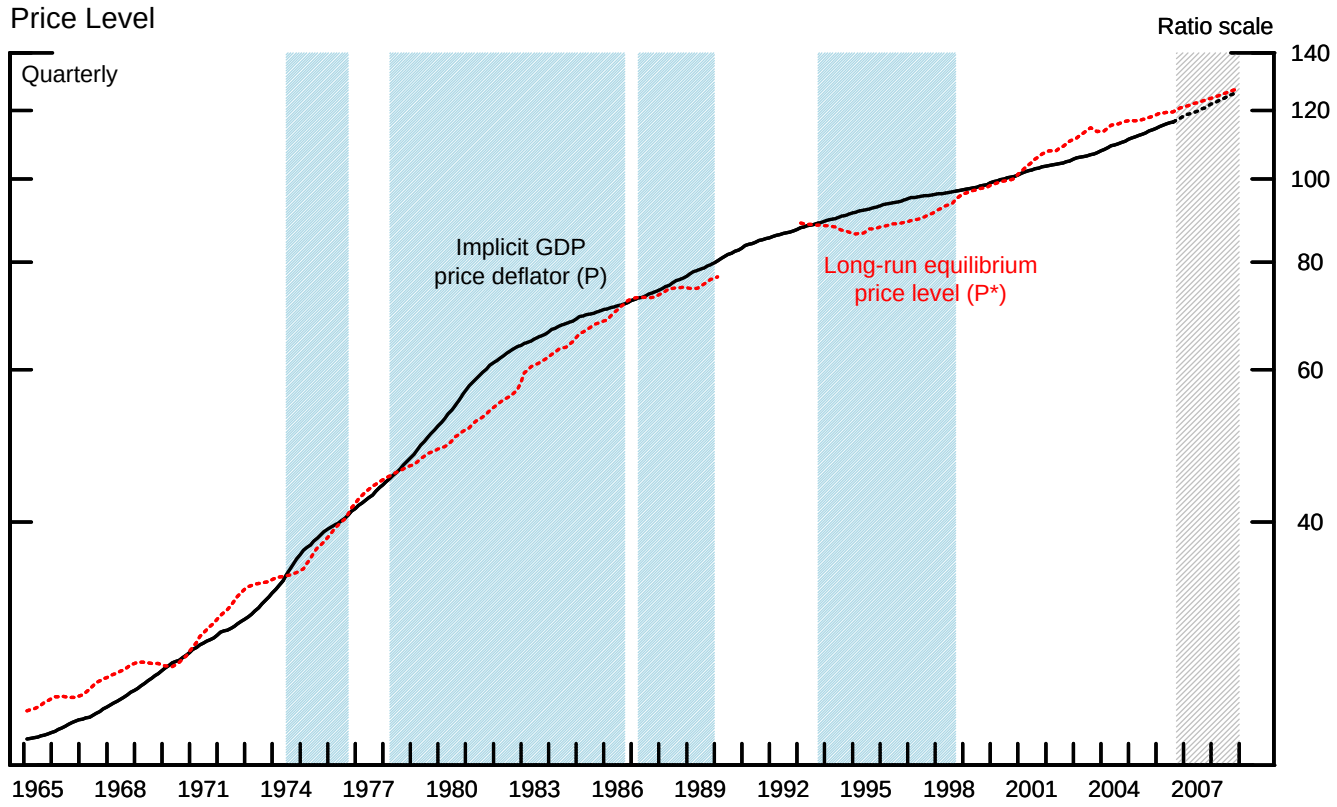


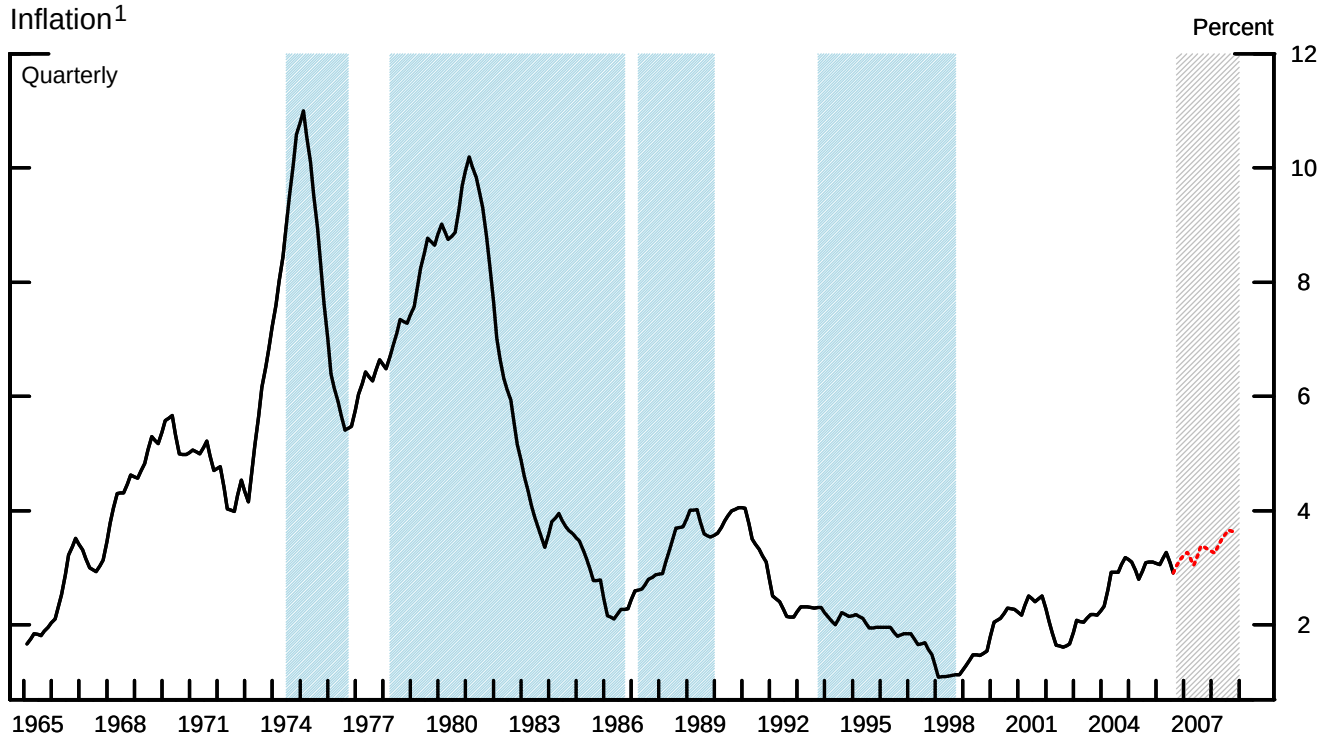
Real M2



Note. Four−quarter moving average. Blue shaded regions denote NBER−dated recessions. Gray areas denote projection period. Real M2 is deflated by CPI.

Inflation Indicator Based on M2





1. Change in the implicit GDP price deflator over the previous four quarters.

Note: P* is defined to equal M2 times V* divided by potential GDP. V*, or long-run velocity, is estimated using average velocity over the 1959:Q1-to-1989:Q4 period and then, after a break, over the interval from 1993:Q1 to the present. For the forecast period, P* is based on the staff M2 forecast and P is simulated using a short-run dynamic model relating P to P*. Blue areas indicate periods in which P* is notably less than P. Gray areas denote the projection period.