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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Class I FOMC - Restricted Controlled (FR)

August 2, 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) Increased concerns among investors about further deterioration in the U.S. subprime mortgage market appear to have prompted a broad-based reassessment of risk in financial markets over the intermeeting period. In part, the reassessment seems to have reflected greater uncertainty about the appropriate valuation of some U.S. structured credit instruments, including collateralized debt obligations (CDOs) and collateralized loan obligations (CLOs) used to fund both mortgage and business credits. Over the period, some corporate credit spreads widened substantially, equity indexes were quite volatile, and safe-haven demands reportedly boosted government bond prices in many industrialized countries. Investors marked down their expected path for U.S. monetary policy.

(2) Concern about signs of further deterioration in the quality of subprime credits, and uncertainty about the extent and incidence of associated losses, gripped investors over much of the intermeeting period. Market participants reacted to announcements by rating agencies of downgrades of some residential-mortgage-backed securities and CDO tranches, the publication of significantly lower-than-expected second-quarter earnings at a large mortgage originator, the release of remittance data associated with subprime mortgage pools that pointed to a further rise in delinquencies, and news that a mortgage lender had difficulty meeting margin calls that were triggered by a decline in the value of its subprime mortgage collateral. Weaker-than-expected data on recent home sales also appeared to contribute to mounting expectations of losses on subprime loans. Investors responded by pushing up spreads on indexes of credit default swaps (CDS) on subprime mortgage

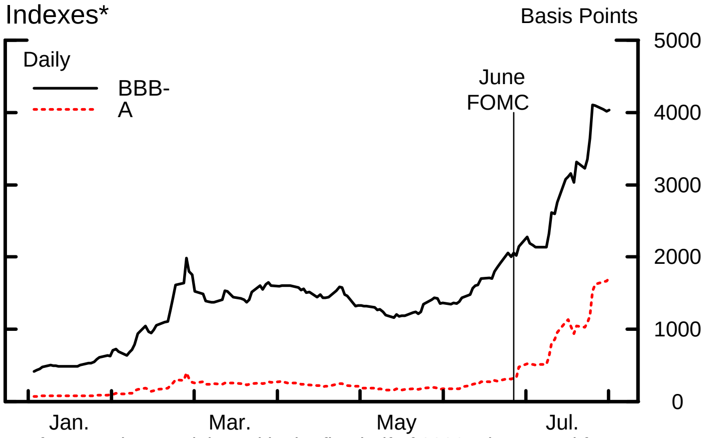
instruments and premiums on CDS of firms active in the sector (Chart 1). (See box entitled "Recent Developments in the Subprime Mortgage Market.")

(3) Against this backdrop, and with an exceptionally large calendar of relatively low-rated corporate financing deals related to leveraged buy-outs (LBOs), credit concerns spread to encompass other risky instruments, and some corporate credit spreads, especially in the high-yield sector, widened markedly. Elevated market volatility and uncertainty about valuations contributed to, and may have been reinforced by, the delay or withdrawal of several leveraged loan deals and speculative-grade bond issues and led to heightened jitters about the availability of LBO-related financing going forward. On balance over the intermeeting period, spreads of yields on speculative-grade corporate bonds over those on comparable-maturity Treasury securities increased more than 100 basis points, while those on investment-grade securities rose about 35 basis points. Even so, these spreads generally remained moderate by historical standards, and investment-grade yields were little changed over the period. Late in the period, there were reports of unsettled conditions in the asset-backed commercial paper (ABCP) market, although ABCP issuance and published ABCP yields did not appear to be much affected. (See box entitled "Recent Developments in Corporate Credit Markets.") Despite second-quarter earnings reports that were generally solid, broad equity price indexes declined about 2½ percent, on net. Stock prices of financial firms and homebuilders fell considerably more, and CDS premiums on obligations of large investment banks and some major mortgage insurers widened sharply. The option-implied volatility of equity prices jumped to levels that were above its long-run historical average.

(4) Federal Reserve communications left little imprint on market prices, on net, over the period. The FOMC's decision at its June meeting to keep the target federal funds rate unchanged at 5¼ percent was widely anticipated, but its assessment that "sustained moderation in inflation pressures has yet to be convincingly demonstrated"

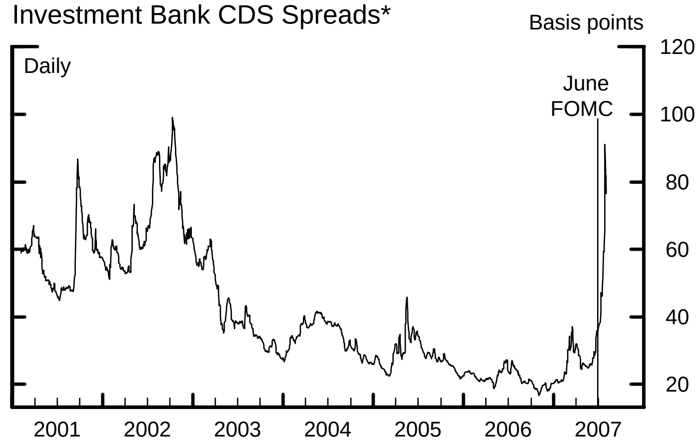
Chart 1
Asset Market Developments

Spread on Subprime Mortgage CDS Indexes*



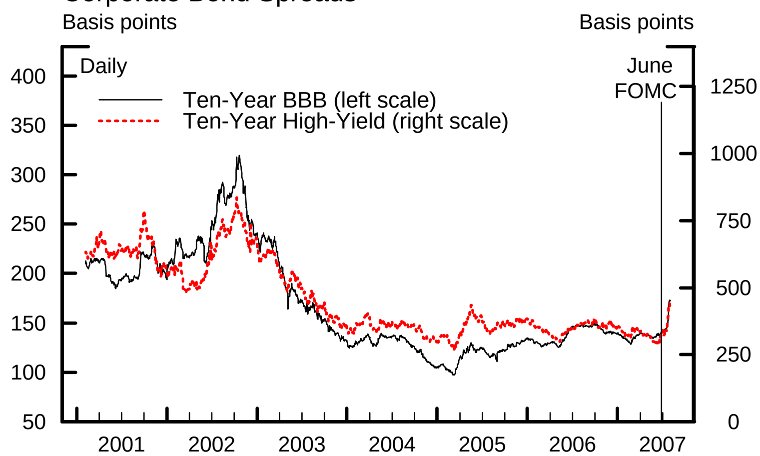
*References loans originated in the first half of 2006. The spread for each segment of the index is translated from price quotes based on JP Morgan's prepayment model.
Last daily observation is for August 1, 2007.

Investment Bank CDS Spreads*



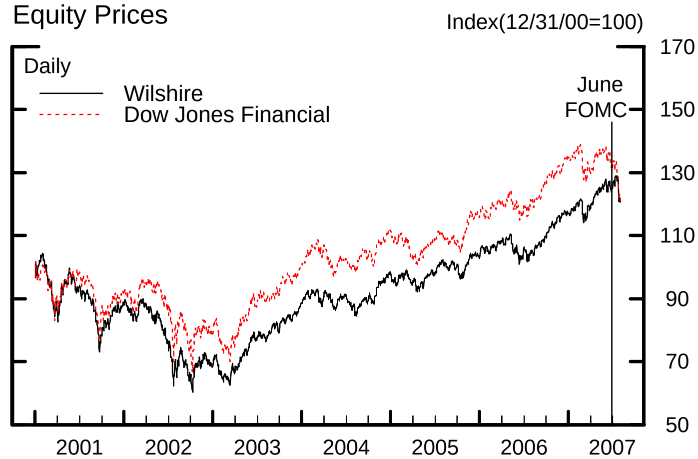
*Average of Lehman Brothers, Morgan Stanley, Goldman Sachs, Bear Stearns, and Merrill Lynch.
Last daily observation is for August 1, 2007.

Corporate Bond Spreads*



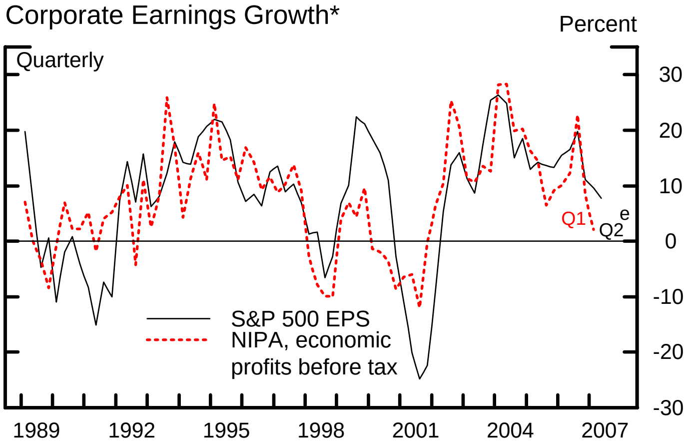
*Measured relative to an estimated off-the-run Treasury yield curve.
Last daily observation is for August 2, 2007.

Equity Prices



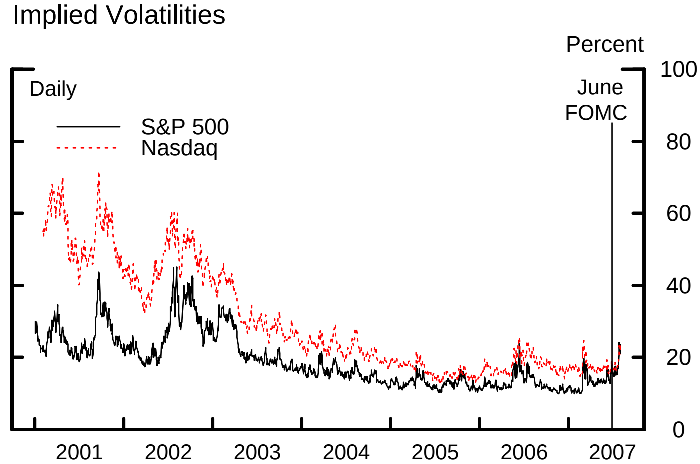
Last daily observation is for August 2, 2007.

Corporate Earnings Growth*



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

Implied Volatilities



Last daily observation is for August 2, 2007.

Note: Vertical lines indicate June 27, 2007.

Recent Developments in the Subprime Mortgage Market

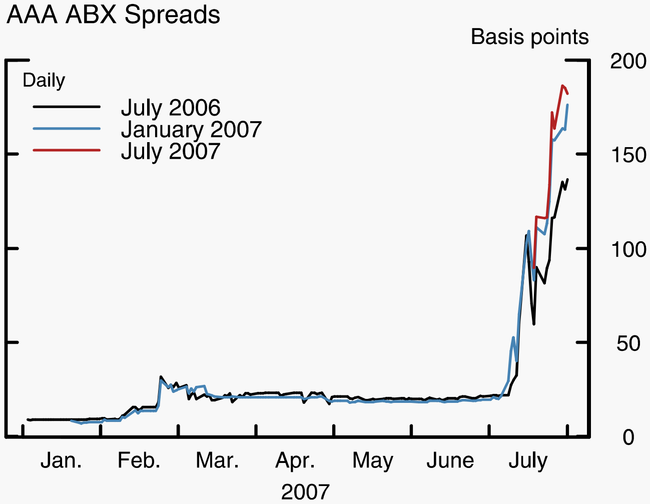
Conditions in the subprime residential mortgage sector continued to deteriorate over the intermeeting period. Rating agencies downgraded lower-rated tranches of a considerable number of subprime residential mortgage-backed securities (RMBS) deals and also some higher-rated tranches of collateralized debt obligations (CDOs) backed by recently issued subprime mortgages—including some AAA tranches that investors had believed to be very safe. In addition, the rating agencies announced changes to their rating and surveillance methodologies for RMBS and CDOs. Investors took note of the fact that the criteria to assign high ratings to future structures will be more stringent and apparently also interpreted the announcements as an indication that further downgrades of existing deals might be forthcoming. As a consequence, spreads on even the AAA segments of the most recent vintages of the ABX subprime mortgage indexes, which previously had been largely immune from the negative news affecting the sector, jumped to levels well above 150 basis points—as shown in the left panel below. ABX spreads also widened in response to remittance reports issued at the end of July showing that delinquency rates and defaults on the underlying pools of subprime residential mortgages had accelerated more than some had expected.

The poor performance of existing loans negatively affected the second quarter earnings of firms active in both the subprime and Alt-A sectors.[1] Countrywide reported second-quarter earnings well below expectations and indicated that delinquencies and defaults were rising in all its mortgage business lines, including second loans to households with relatively strong credit histories. Earnings of other lenders and of investment banks that securitize and warehouse subprime mortgage loans also suffered. With the market value of subprime and Alt-A MBS declining sharply, some well-known issuers of securities faced heavy margin calls and uncertain prospects. In addition, several more hedge funds announced a steep drop in value.

Large mortgage lenders, including Countrywide, Washington Mutual, and Wells Fargo, announced that they will stop offering some of the more popular and riskier subprime loan products, including those extended with limited or no documentation and those with low initial "teaser" rates. Even before these announcements, issuance of subprime RMBS had slowed to a trickle in July—the right panel below. Reportedly, investors have sharply marked down their estimates of subprime RMBS issuance over the rest of the year. With an estimated one million subprime borrowers facing substantial increases in mortgage payments before the end of the year as the teaser periods on their mortgages expire, the expected slowdown in subprime mortgage activity appears likely to put further upward pressure on delinquency and foreclosure rates.

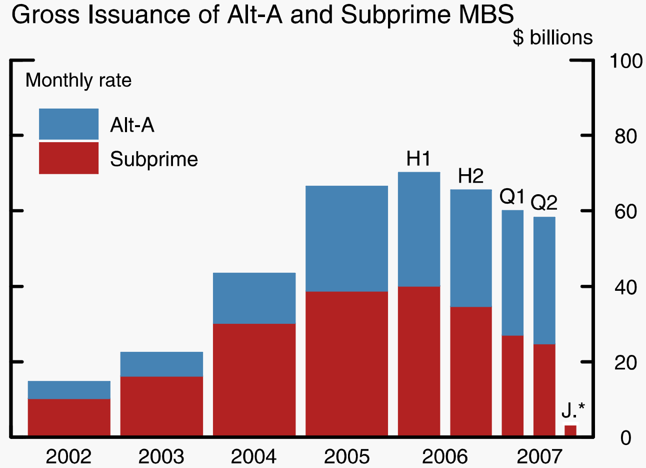
[1] On June 29, 2007, the federal financial regulatory agencies issued their final statement on subprime mortgage lending to address issues relating to certain adjustable-rate mortgage products.

AAA ABX Spreads



Note. Data as of August 1, 2007.
Source. JPMorgan Chase.

Gross Issuance of Alt-A and Subprime MBS



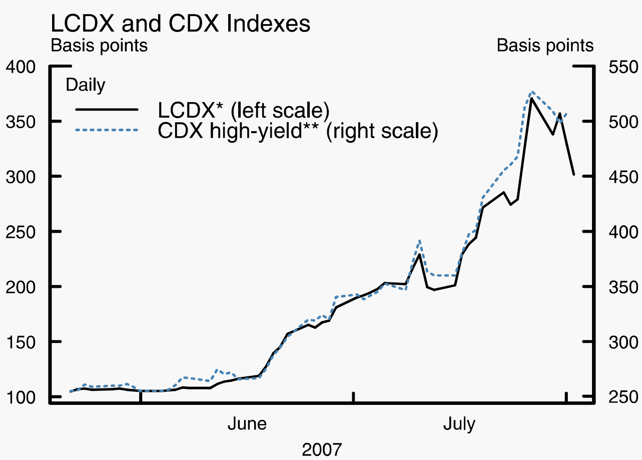
*Through July 27 at a monthly rate; Alt-A not yet available.
Source. Inside Mortgage Finance MBS database, Merrill Lynch.

Recent Developments in Corporate Credit Markets

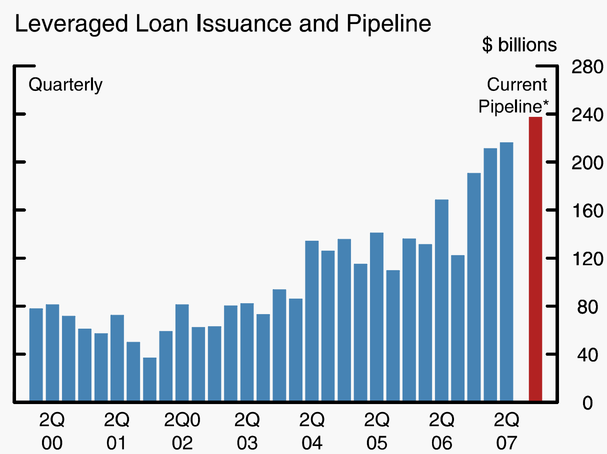
The continued deterioration of the subprime mortgage sector appeared to prompt a substantial tightening in conditions in speculative-grade corporate credit markets over the intermeeting period. Even though delinquency rates on lower-quality corporate credits remained low, spreads on a traded index comprising 100 relatively liquid speculative-grade CDS on corporate names rose about 180 basis points, as investors reassessed business credit risk and pulled back from riskier assets. Spreads on CDS and loan CDS (LCDS) were also reportedly boosted by elevated hedging demands from market participants with exposure to the large pipeline of leveraged deals. In cash markets, spreads on a broad index of speculative-grade bonds increased less, but still widened about 110 basis points. Average bid prices on leveraged loans (particularly on riskier covenant-lite and second-lien loans) declined notably. Investment-grade credit markets were significantly calmer; nonetheless, CDS and bond spreads in that sector rose between 30 and 40 basis points. Both speculative- and investment-grade bond spreads are now at the top of their ranges over the past few years, but they are still below their highs posted earlier this decade. Even so, investment-grade yields are little changed over the intermeeting period. Judging from options on CDS, uncertainty about the future level of corporate spreads has spiked since late June.

In addition to the large pipeline of leveraged deals, one factor that may have contributed to the widening of spreads is investors' increased uncertainty regarding the valuation of structured products such as CLOs and CDOs, perhaps in reaction to the recent ratings downgrades of CDOs backed by subprime RMBS. Spreads on the lower-rated tranches of such products have widened considerably of late, and issuance apparently slowed substantially in July. Such adjustments, if they persist, could sharply reduce the supply of funds to the leveraged loan market, as CLOs and CDOs reportedly hold a substantial fraction of all leveraged loans outstanding. In addition, asset price moves may have been exacerbated at times during the intermeeting period by concerns regarding possible forced sales by investors facing substantial liquidity pressures.

To date, the impact of tighter conditions in corporate credit markets has been concentrated in financings slated for LBOs. A number of high-yield bond and leveraged loan issues that were intended to finance LBOs, some of which were quite large, were delayed or restructured over the intermeeting period, reportedly due to investor demands for tighter terms. In some cases, underwriters have provided bridge loans to finance large deals that could not be sold to investors. Overall, issuance of high-yield bonds and, reportedly, of leveraged loans has slowed sharply recently. Financings of higher-rated firms appeared little affected, though one investment-grade firm postponed a deal scheduled to take place on July 26 amid volatile market conditions.



*Data as of August 2, 2007.
**Data as of August 1, 2007.
Source. Markit.



*As of July 26, 2007.
Source. Loan Pricing Corporation.

was reportedly interpreted by market participants as suggesting that the Committee remained quite concerned about the upside risks to inflation.[1] As a result, the anticipated path of monetary policy for the second half of 2008 increased a few basis points that day. Policy expectations beyond the near term declined noticeably following the Chairman's semiannual monetary policy testimony, reportedly in response to the downward revision to the FOMC's central tendency projections for real GDP growth in 2007 and 2008. The subsequent publication of the minutes of the June meeting elicited little market reaction.

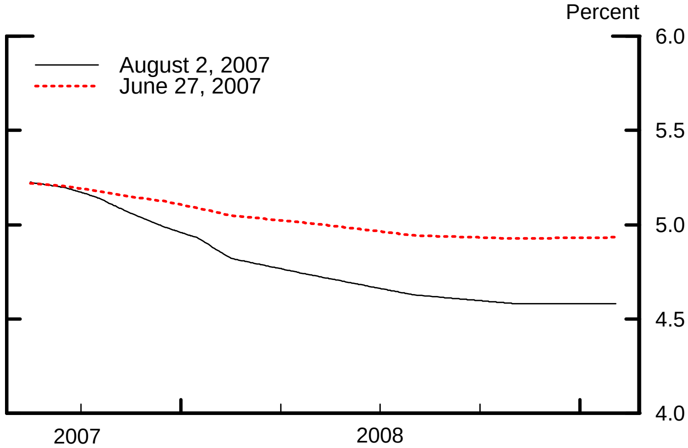
(5) Concerns about the potential macroeconomic implications of a more restrictive credit environment led investors to revise down the trajectory for the federal funds rate implied by futures contracts, including in the near term. Futures quotes now imply about 30 percent odds of a 25 basis point easing in monetary policy by the September meeting and put the expected funds rate at the end of 2007 at around 5 percent (Chart 2). Further out, policy expectations were lowered more; the expected policy rate at the end of 2008 fell about 35 basis points to a bit above 4½ percent. In the Desk's recent survey, however, primary dealers indicated that they anticipated little change in policy through the end of 2008, and their forecasts for GDP growth were about the same as at the time of the June meeting. Option-implied measures of uncertainty around the expected path for policy widened considerably, and the implied distribution of future federal funds rates became more skewed toward the downside.

(6) Yields on two- and ten-year nominal Treasury coupon securities declined around 30 basis points, on balance. The drop in longer-term yields was concentrated in one-year forward rates two to three years ahead. Term structure models attribute much of the decline to a reduction in term premiums, possibly indicating a heightened

[1] The effective federal funds rate averaged 5.26 percent over the intermeeting period. During the period, System holdings of Treasury securities were unchanged. The volume of outstanding long-term RPs decreased by $1 billion, to $10 billion.

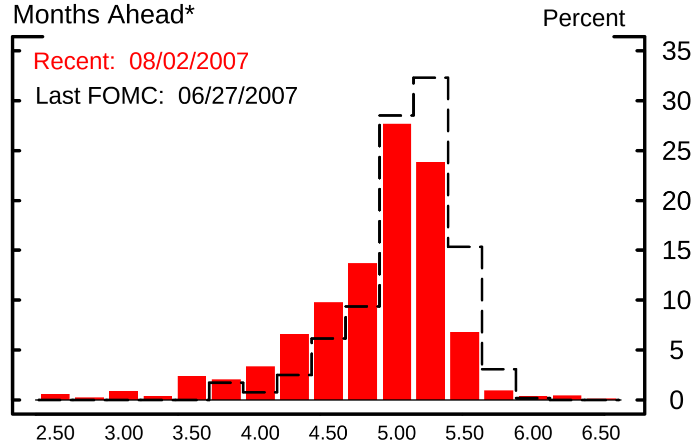
Chart 2
Interest Rate Developments

Expected Federal Funds Rates*



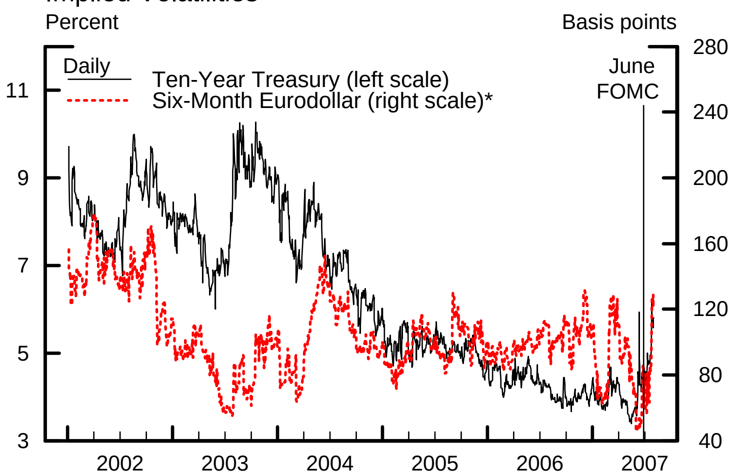
*Estimates from federal funds and Eurodollar futures, with an allowance for term premiums and other adjustments.

Implied Distribution of Federal Funds Rate Six Months Ahead*



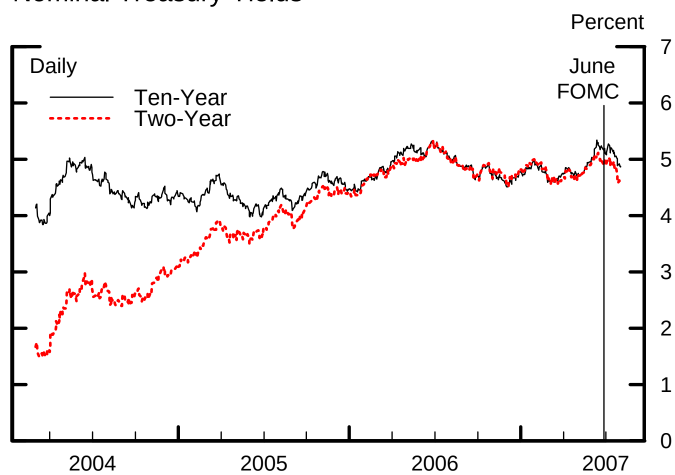
*Derived from options on Eurodollar futures contracts, with term premium and other adjustments to estimate expectations for the federal funds rate.

Implied Volatilities



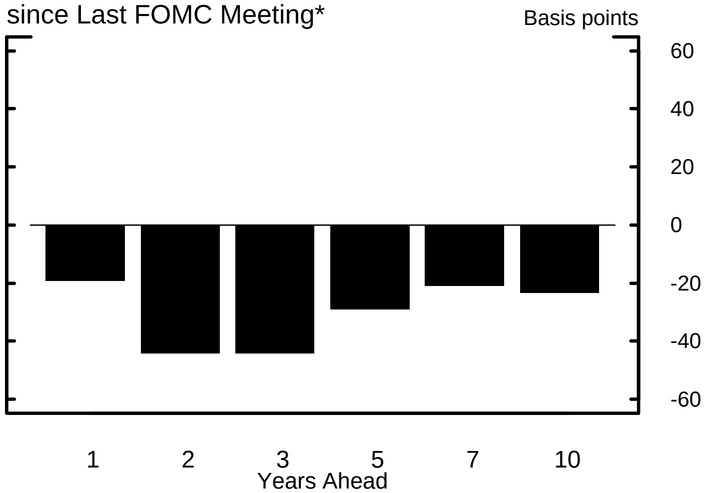
*Width of a 90 percent confidence interval estimated from the term structures for the expected federal funds rate and implied volatility.

Nominal Treasury Yields*



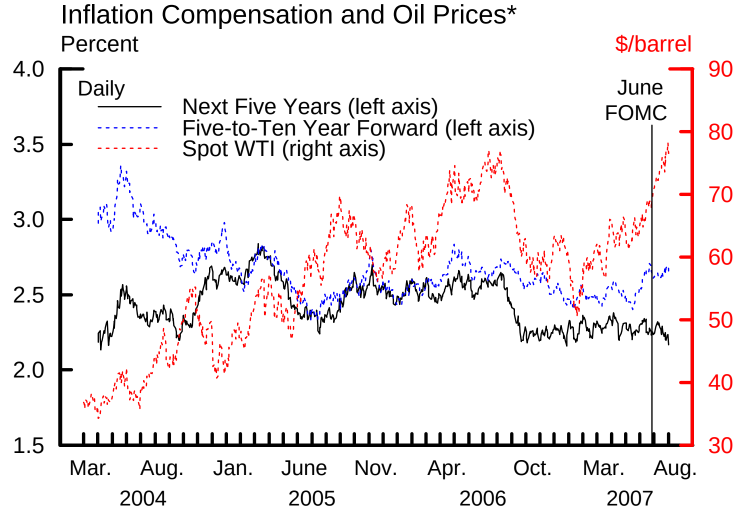
*Par yields from a smoothed nominal off-the-run Treasury yield curve.

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*



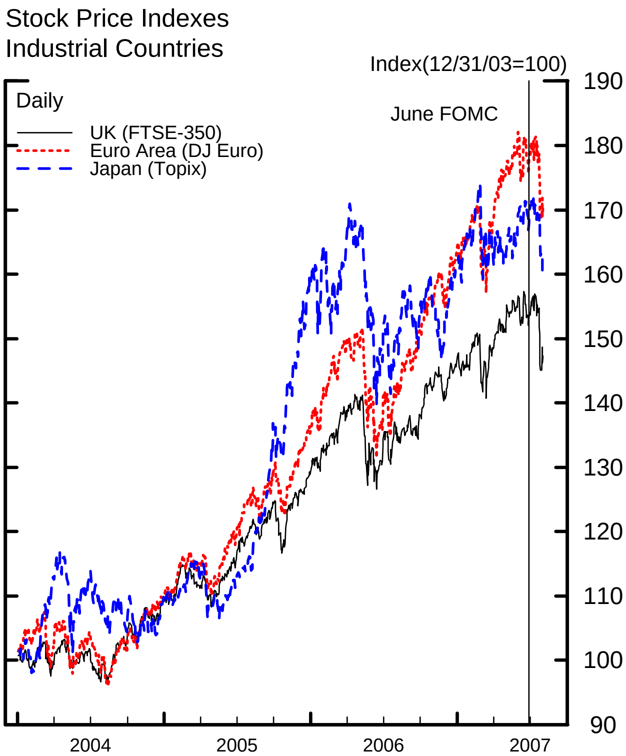
*Estimates based on smoothed nominal and inflation-indexed Treasury yield curves and adjusted for the indexation-lag (carry) effect.

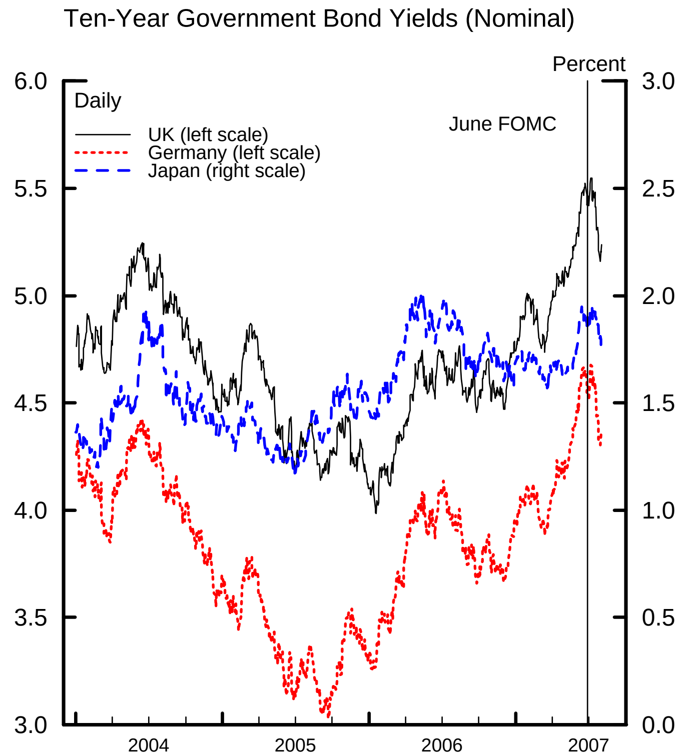
Note: Vertical lines indicate June 27, 2007. Last daily observations are for August 2, 2007.

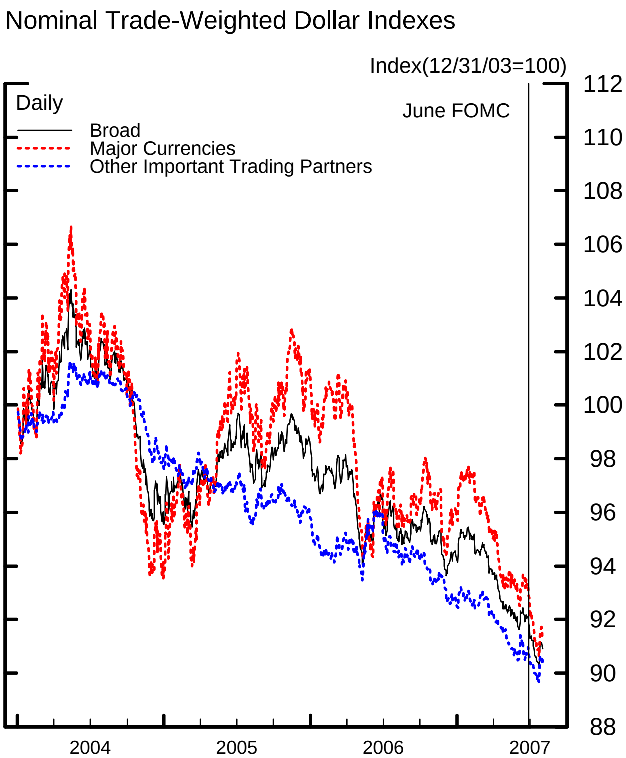
preference on the part of investors for the safety and liquidity of Treasuries. Measures of uncertainty about Treasury yields rose markedly over the period. Despite a rise in the spot price of oil of more than $7 per barrel, TIPS yields moved down about in line with their nominal counterparts, leaving TIPS-based measures of inflation compensation little changed at both medium- and long-term maturities. The Reuters-Michigan survey-based measure of short-term inflation expectations was unchanged, but the long-term measure increased slightly.

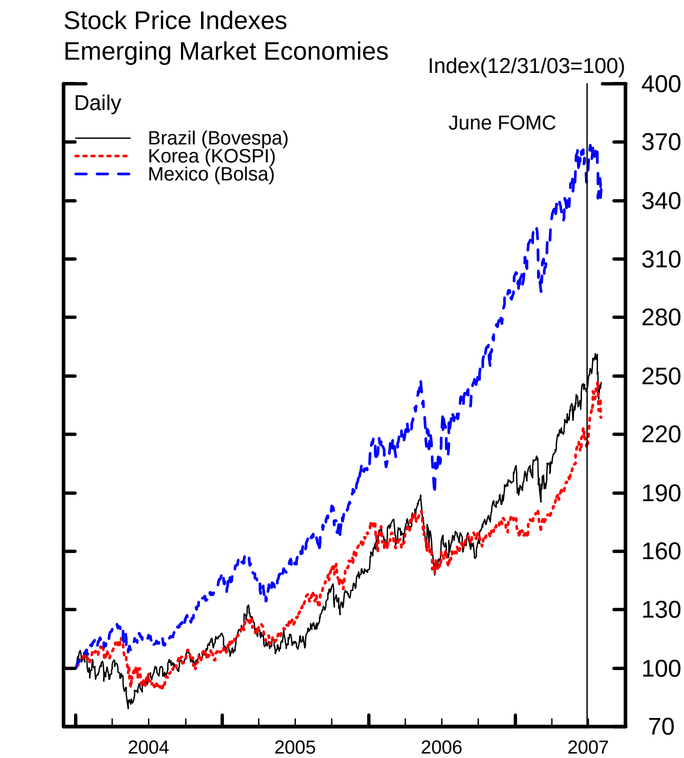
(7) Foreign financial markets, especially in Europe, also were affected by heightened credit concerns. The spread on the iTraxx Crossover index, a traded index of fifty of the most liquid CDS on mainly sub-investment-grade nonfinancial corporations in Europe, climbed about 165 basis points over the period to around 400 basis points. Amid noticeably higher volatility, share prices in most major foreign industrial countries dropped between 4 and 5 percent (Chart 3). Yields on long-term sovereign securities in these countries fell 10 to 30 basis points, somewhat less than the declines recorded on comparable U.S. Treasury securities. Policy expectations generally moved down less as well; market participants appeared to interpret the upset in financial markets as less likely to undermine foreign economic growth and thus less likely to prompt a monetary policy response abroad. Worries about credit quality in U.S. markets weighed on the foreign exchange value of the dollar over much of the intermeeting period, but amid reports that many market participants were seeking to reduce risky positions late in the period, the dollar retraced some of its earlier declines. On balance, the dollar declined about 1¾ percent against a trade-weighted index of major foreign currencies. Against individual currencies, the dollar fell about 3 percent against the yen, 1¾ percent versus the euro, and 1 percent versus the Canadian dollar.

Chart 3
International Financial Indicators









Note: Vertical lines indicate June 28, 2007. Last daily observations are for August 2, 2007.

During the period, the Bank of England and the Bank of Canada raised their policy interest rates 25 basis points.[2]

(8) Financial markets in emerging market economies were affected unevenly by the bout of credit concerns in the United States and Europe. In Mexico and Brazil, spreads on EMBI+ and CDS premiums on sovereign debt widened, and stock prices were little changed on balance. In many Asian economies, by contrast, equity prices recorded strong net gains over the period, including a 12½ percent rise in Chinese stock prices. The dollar moved down slightly over the intermeeting period versus an index of currencies of our other important trading partners. A 1¼ percent appreciation of the dollar against the Mexican peso was more than offset by a nearly ¾ percent depreciation versus the Chinese renminbi and small declines in the dollar's value against many other emerging market currencies. The People's Bank of China increased its policy rate another 27 basis points in July and raised reserve requirements further.

(9) Despite the heightened volatility, most financial markets around the globe generally functioned well over the intermeeting period. In the United States, trading volumes in corporate CDS markets were reportedly very high but volumes in corporate bond markets were about normal; bid-asked spreads in both markets appeared to widen somewhat, especially in the market for single-name CDS. Liquidity in subprime credit derivatives markets, including those for the ABX indexes, was reportedly poor, as most investors sought to buy credit protection. Volumes were very high in equity and Treasury markets, but trading was reportedly orderly, with bid-asked spreads in their usual ranges. Liquidity premiums for on-the-run Treasury securities were little changed. By contrast, in the interest-rate swap market, spreads

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over Treasuries increased substantially, and price movements were discontinuous at times, but on the whole the market continued to operate well. Implied volatilities rose significantly in all markets.[3] In foreign exchange markets for the major currency pairs, trading volumes were considerably elevated—especially for dollar-yen—but bid-asked spreads remained in normal ranges and trading was orderly. In corporate markets, investment-grade bond issuance seemed to be little affected by the turmoil in other segments of the capital markets. C&I loans overall appear to have expanded at a brisk pace during July, while commercial paper outstanding rose modestly. Some speculative-grade corporate bonds were also issued last month, but, as mentioned above, a number of corporate financing deals, often related to LBOs and share repurchase programs, were postponed or restructured, and the outlook for deals planned for the next few weeks is unclear. New issuance of CDOs, CLOs, and some types of subprime mortgage-backed securities dropped off sharply. Both seasoned and initial public equity offerings continued at a moderate pace.

(10) The debt of domestic nonfinancial sectors is estimated to have expanded at a 6¼ percent pace in the second quarter, a bit slower than in the first quarter and down substantially from 2006 (Chart 4). This diminished growth trajectory is mainly attributable to an ongoing moderation in household mortgage debt stemming from the softening in house prices, higher mortgage rates, sluggish home sales, and tighter mortgage lending standards. By contrast, growth of the debt of nonfinancial businesses is estimated to have picked up to about a 10¾ percent rate last quarter, supported by substantial bond issuance, hefty growth in C&I loans, and a rise in commercial paper outstanding; borrowing continued to be spurred by a large volume of merger and acquisition activity.

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[3] The increases in various spreads and implied volatilities were rapid and highly correlated in recent weeks. The recent movements in these measures are broadly comparable to those seen during the summer of 2002, a time when markets were roiled by several high-profile corporate defaults and scandals.

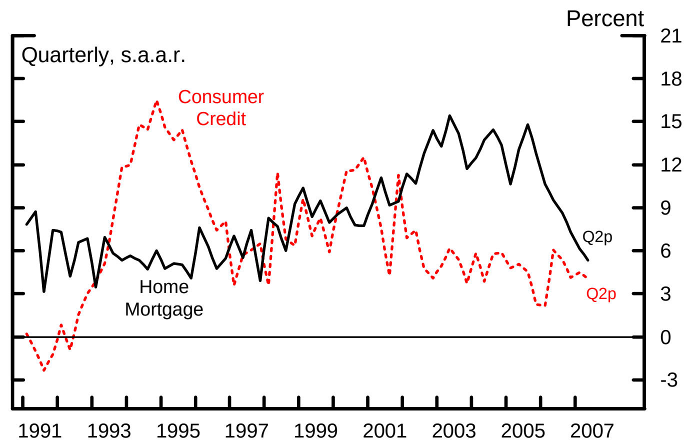
Chart 4
Debt and Money

Growth of Debt of Nonfinancial Sectors

Percent, s.a.a.r.	Total	Business	Household
2006	8.1	9.6	8.7
Q1	8.9	10.0	9.3
Q2	7.5	8.8	9.2
Q3	6.9	7.0	7.9
Q4	8.2	11.4	7.2
2007			
Q1	7.2	9.0	6.0
Q2p	6.3	10.7	5.4

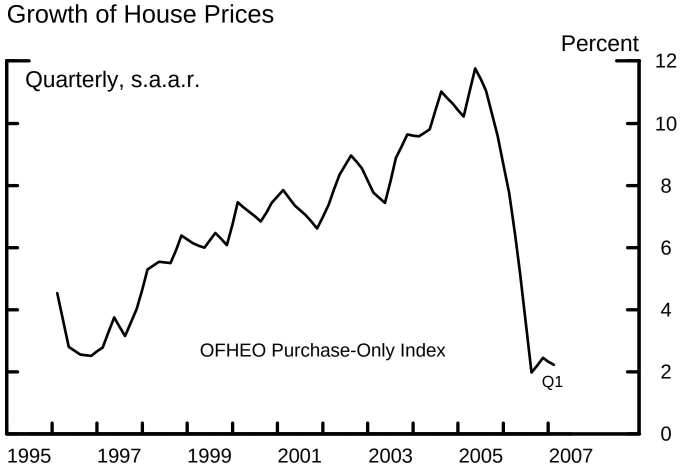
p Projected.

Growth of Debt of Household Sector

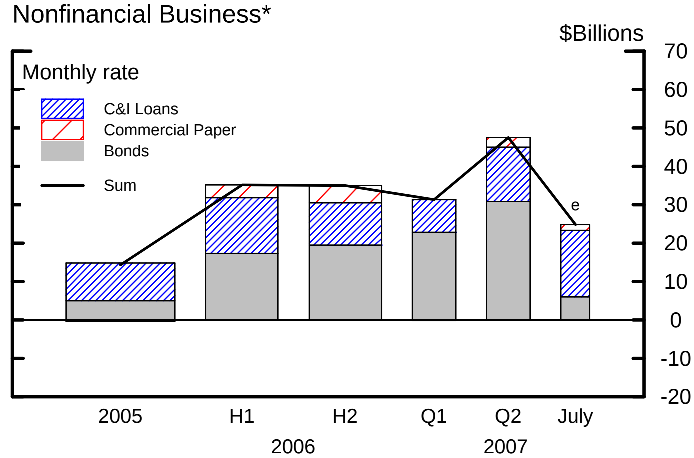


p Projected.

Growth of House Prices

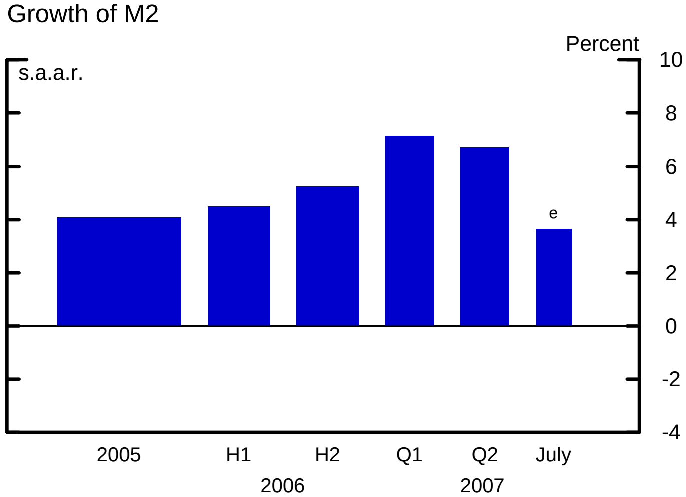


Changes in Selected Components of Debt of Nonfinancial Business*



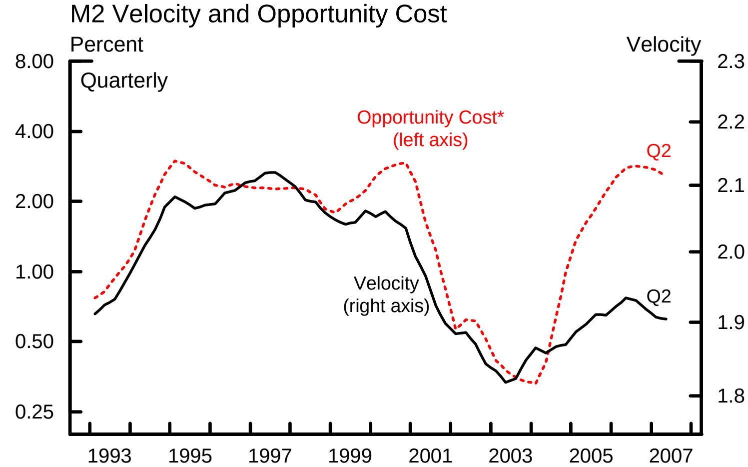
e Estimated.
*Commercial paper and C&I loans are seasonally adjusted, bonds are not.

Growth of M2



e Estimated.

M2 Velocity and Opportunity Cost



*Two-quarter moving average.

(11) M2 growth slowed to a modest 3 percent average annual rate over June and July, reflecting a sharp deceleration of liquid deposits following surprisingly strong growth earlier in the year. Retail money funds continued to advance rapidly, while the expansion of small time deposits slowed. Currency growth remained modest, as moderate expansion in domestic demand offset ongoing weakness in foreign demand. In the second quarter of 2007, the velocity of M2 declined for the fourth straight quarter, in part reflecting slightly narrower opportunity costs of holding M2. However, M2 continued to expand more rapidly than would be expected based on its historical relationship with income and opportunity costs.

Economic Outlook through 2008

(12) The Greenbook forecast continues to be predicated on the assumption that the federal funds rate will be held at 5¼ percent through 2008. Longer-term yields are projected to climb about 25 basis points next year as investors' policy expectations come into line with staff assumptions and term premiums rise. Equity prices are expected to rise at a rate sufficient to generate risk-adjusted returns comparable to those on fixed-income investments, but from a starting point 5½ percent below that in the June Greenbook. The trade-weighted foreign exchange value of the dollar is assumed to depreciate at roughly a 2 percent annual rate over the forecast period. The staff assumes that recent developments in financial markets will restrain growth in aggregate demand by about ¼ percentage point at an annual rate over the period, but significant uncertainty surrounds this assessment.

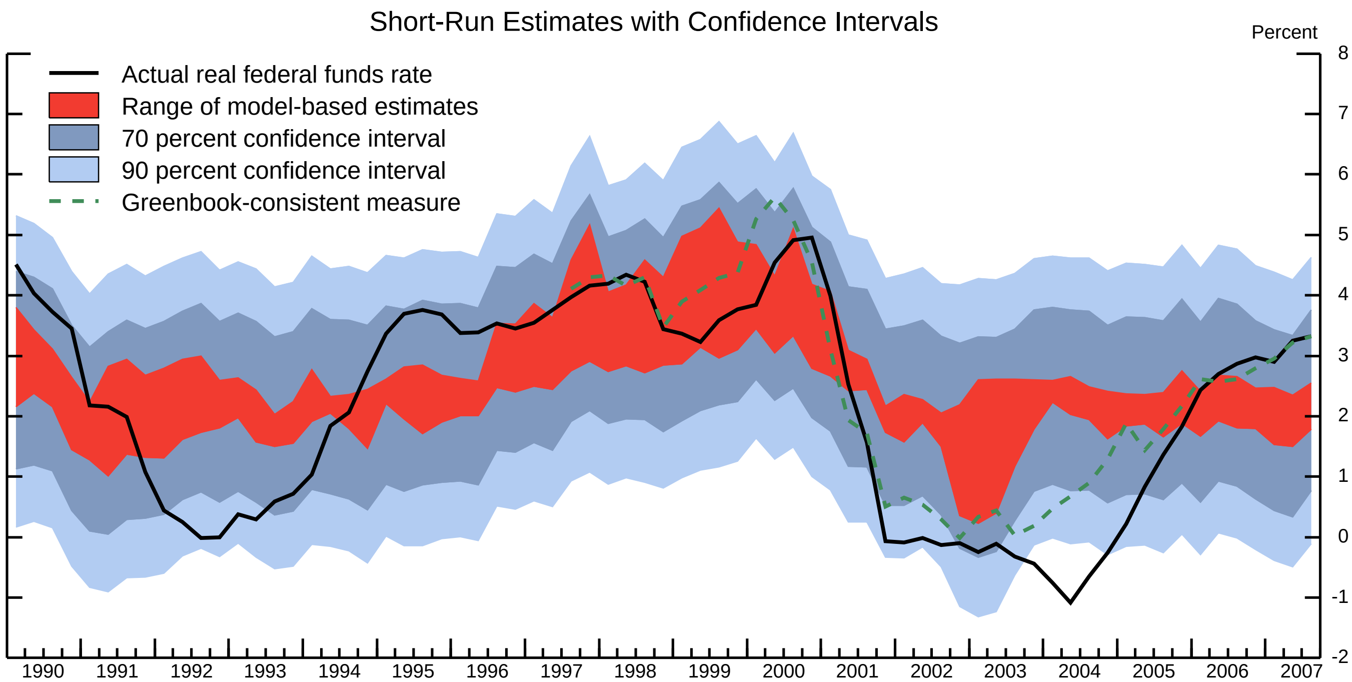
(13) The staff's forecasts for resource utilization and core inflation are nearly identical to those presented in the June Greenbook, although its projection for output growth is noticeably lower. The annual revisions to the National Income and Product Account (NIPA) data released in July revealed somewhat less rapid output growth from 2004 through the first quarter of 2007 than shown by previous data, implying

that productivity growth also was less rapid. Accordingly, the staff lowered its estimate of potential GDP growth over the past few years and carried that adjustment forward. Developments in financial markets in recent weeks, along with weaker-than-expected housing indicators received during the intermeeting period, led the staff to trim its forecast for growth in demand for goods and services somewhat more than implied by the supply-side adjustments alone. The staff now projects that real GDP will expand at an average rate just under 2 percent through 2008, somewhat below its revised estimate of 2.2 percent potential growth. As in the June Greenbook, the unemployment rate edges up to 4¾ percent next spring and then levels out, remaining below 5 percent—the staff's estimate of the NAIRU—throughout the forecast period. With regard to the price outlook, the staff again expects core PCE inflation to average a bit above 2 percent in the second half of 2007 and first half of 2008, and to edge down to 2 percent in the second half of 2008, reflecting well-anchored inflation expectations, a waning of feed-through from the recent run-up in energy and other commodity prices, and some easing of pressures on resource utilization. The staff projects that total PCE inflation will slow from an average of nearly 4 percent in the first half of this year to slightly more than 2 percent in the second half as oil prices flatten out, and to just above 1¾ percent next year as oil prices start to edge down. As usual, the assumed path of oil prices follows futures prices.

Update on Medium-Term Strategies

(14) This section provides an update of the materials on medium-term strategies for monetary policy that were presented in the June Bluebook. As shown in Chart 5, the Greenbook-consistent measure of short-run r^* remains about in line with the actual real federal funds rate of 3.3 percent, reflecting the staff's view that the current real funds rate will induce aggregate demand to grow a bit more slowly than potential

Chart 5
Equilibrium Real Federal Funds Rate



Short-Run and Medium-Run Measures

	Current Estimate	*Previous Bluebook*
Short-Run Measures		
Single-equation model	2.5	*2.3*
Small structural model	1.8	*2.2*
Large model (FRB/US)	2.4	*2.1*
Confidence intervals for three model-based estimates		
70 percent confidence interval	0.8 - 3.8	
90 percent confidence interval	-0.1 - 4.6	
Greenbook-consistent measure	3.3	*3.3*
Medium-Run Measures		
Single-equation model	2.4	*2.4*
Small structural model	1.9	*2.2*
Confidence intervals for two model-based estimates		
70 percent confidence interval	1.2 - 3.1	
90 percent confidence interval	0.7 - 3.9	
TIPS-based factor model	2.1	*2.1*
Memo		
Actual real federal funds rate	3.3	*3.3*

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

GDP, thereby closing the small positive output gap over the next twelve quarters.[4] In contrast, both the single-equation model and the FRB/US model imply estimates of about 2½ percent for short-run *r**, fairly close to the average value of the real funds rate over the past few decades. The small structural model yields an even lower estimate of about 1¾ percent, mainly because this model embeds the staff's assessment of current potential GDP growth—which is a full percentage point below its historical average—but does not incorporate other offsetting factors such as the relatively high wealth-to-income ratio and ongoing real dollar depreciation.

(15) Chart 6 depicts optimal control simulations of the FRB/US model using the staff's extension of the Greenbook forecast beyond 2008.[5] In these simulations, policymakers place equal weights on keeping core PCE inflation close to a specified goal, on keeping unemployment close to the long-run NAIRU, and on avoiding changes in the nominal funds rate.[6] With an inflation goal of 2 percent (the right-hand set of charts), optimal policy is nearly identical to that shown in the June Bluebook: The funds rate path remains just above 5 percent through 2008 and then declines gradually to 4¼ percent by the end of 2012. With an inflation goal of 1½ percent (the left-hand set of charts), the optimal path of the funds rate rises a notch less than in June—reaching a peak of about 6 percent in mid-2008—and then declines gradually to about 3¾ percent over the following half-decade. For each inflation goal, the outcomes for unemployment and core inflation are broadly unchanged from June.

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[4] The actual real funds rate is constructed as the current nominal rate less the average core PCE inflation rate over the past year.

[5] The characteristics of the extension are described in the memo to the Committee by Rochelle Edge, "The Extended Greenbook Forecast," August 2, 2007.

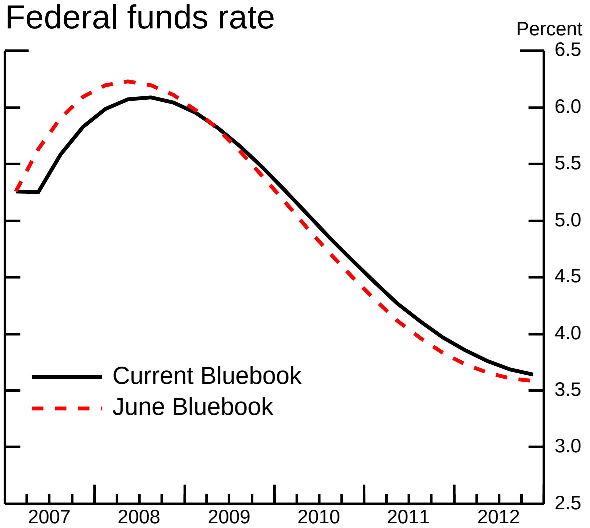
[6] In conducting these simulations, policymakers and participants in financial markets are assumed to understand fully the forces shaping the economic outlook (as summarized by the extended Greenbook projection), whereas households and firms form their expectations using more limited information.

Chart 6

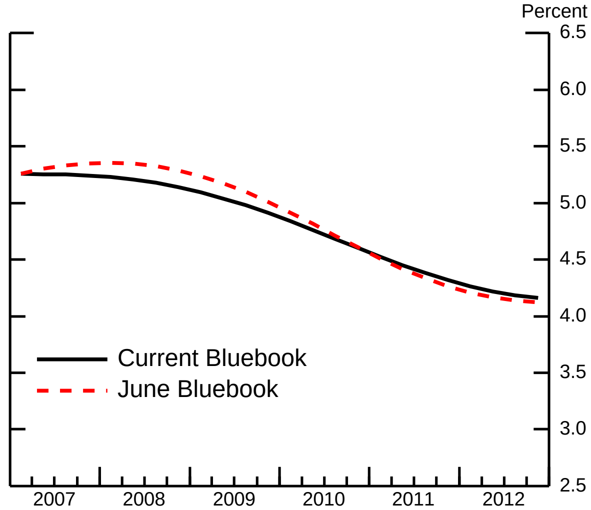
Optimal Policy Under Alternative Inflation Goals

1½ Percent Inflation Goal

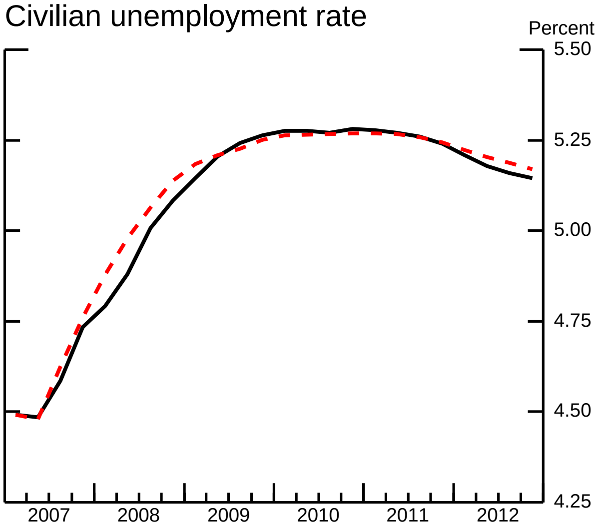
Federal funds rate

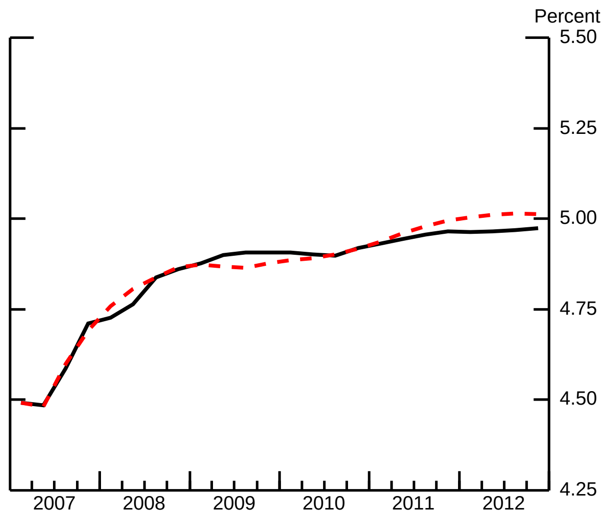


2 Percent Inflation Goal



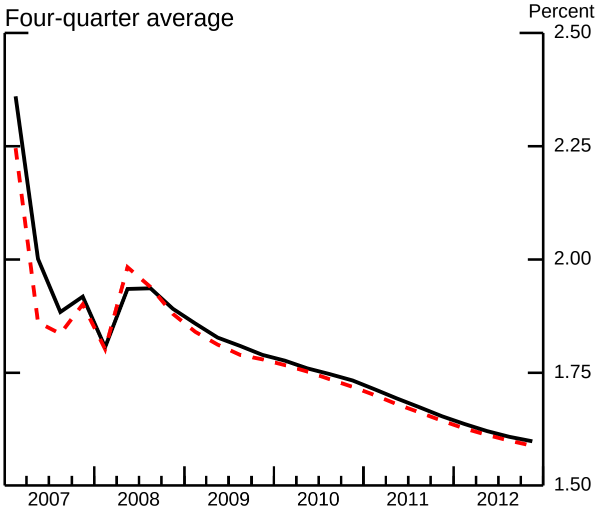
Civilian unemployment rate



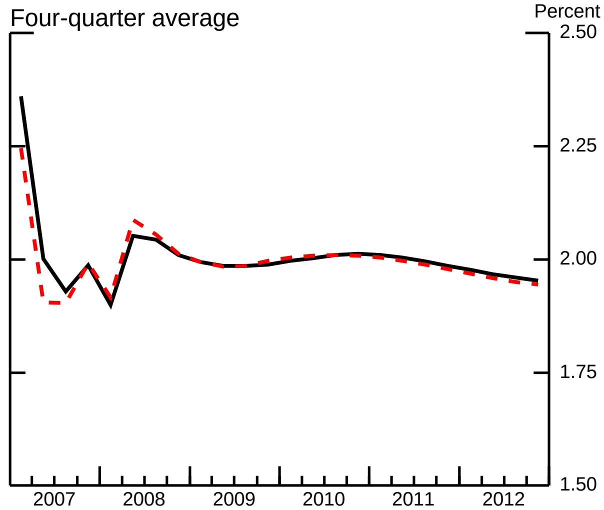


Core PCE inflation

Four-quarter average



Four-quarter average



(16) As shown in Chart 7, the outcome-based policy rule prescribes a funds rate path that remains close to 5 percent through the remainder of the decade and then declines to about 4¼ percent by the end of 2012, whereas forward contracts indicate that financial market participants expect the funds rate to decline to about 4½ percent by late 2008 and then rise gradually to a plateau of about 5 percent. Confidence intervals derived from interest rate caps exhibit somewhat greater downward skewness than in the June Bluebook, and the upper bounds of these intervals are noticeably lower than those implied by stochastic simulations of the FRB/US model, especially over the next two years or so. The simple policy rules proposed by Taylor (1993, 1999)—as well as a variant of the Taylor (1999) rule with a higher intercept—prescribe current settings of the funds rate that are about 10 to 20 basis points higher than in June, reflecting the modest upward revision in the staff's estimate of the current level of the output gap. By contrast, the first-difference rule does not involve the staff's assessment of the current level of the output gap but instead responds to the projected one-year change in the output gap at a three-quarter forecast horizon; this rule's current prescriptions are a notch lower than in the June Bluebook, mainly because the output gap is now expected to decline a bit more quickly.

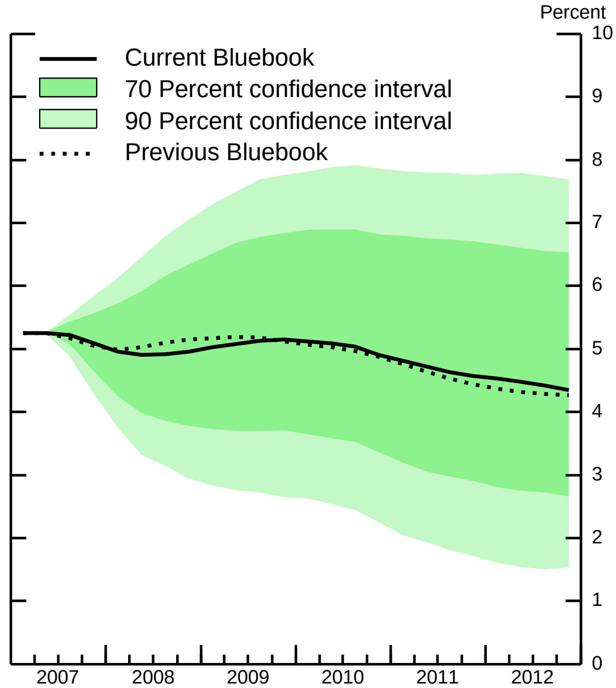
Short-Run Policy Alternatives

(17) This Bluebook presents three options, summarized in Table 1, for the Committee's consideration. Alternative A would lower the target federal funds rate 25 basis points to 5 percent. Alternative B would maintain the target for the federal funds rate at 5¼ percent. Alternative C envisions raising the target to 5½ percent. The draft language to characterize recent information on economic activity differs across the three options: Alternatives A and B refer explicitly or implicitly to recent moderate economic expansion, while Alternative C emphasizes the second-quarter

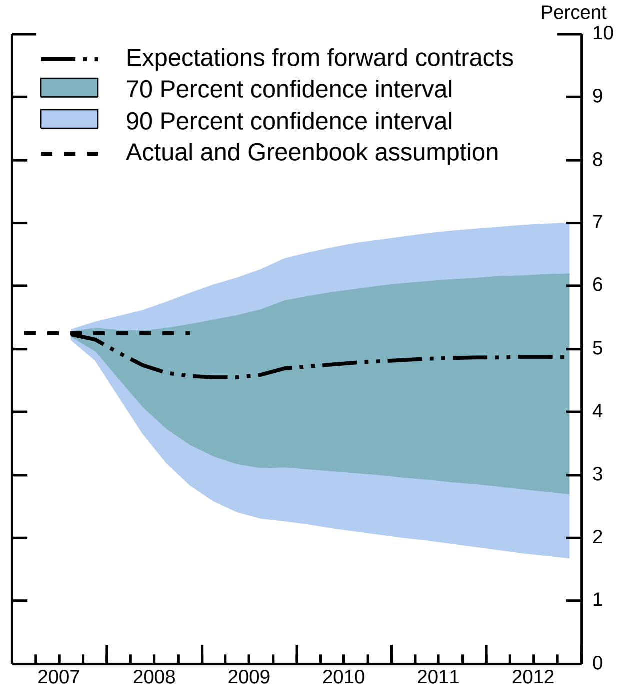
Chart 7

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	
	2007Q3	2007Q4	2007Q3	2007Q4
Taylor (1993) rule	4.5	4.5	4.2	4.2
Previous Bluebook	*4.4*	*4.4*	*4.1*	*4.2*
Taylor (1999) rule	4.7	4.7	4.5	4.4
Previous Bluebook	*4.6*	*4.6*	*4.3*	*4.4*
Taylor (1999) rule with higher r*	5.5	5.4	5.2	5.2
Previous Bluebook	*5.3*	*5.4*	*5.1*	*5.1*
First-difference rule	5.4	5.5	5.1	5.0
Previous Bluebook	*5.5*	*5.8*	*5.3*	*5.3*

Memo	2007Q3	2007Q4
Estimated outcome-based rule	5.2	5.1
Estimated forecast-based rule	5.2	5.0
Greenbook assumption	5.3	5.3
Market expectations	5.2	5.1

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

Table 1: Alternative Language for the August 2007 FOMC Announcement				
	June 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 lower its target for the federal funds rate 25 basis points to 5 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 25 basis points to 5½ percent.
Rationale	2. Economic growth appears to have been moderate during the first half of this year, despite the ongoing adjustment in the housing sector. The economy seems likely to continue to expand at a moderate pace over coming quarters.	Overall economic activity seems likely to continue to expand at a moderate pace over coming quarters. However, increased weakness in the housing sector, along with reduced availability and higher cost of credit to some households and businesses, has raised the risk that economic activity might grow less than anticipated.	Economic growth was moderate during the first half of this year. The adjustment in the housing sector is continuing, and credit conditions have become tighter for some households and businesses. Nonetheless, the economy seems likely to continue to expand at a moderate pace over coming quarters.	Economic growth picked up in the second quarter. The economy seems likely to expand at a moderate pace over coming quarters despite the ongoing adjustment in the housing sector.
	3. Readings on core inflation have improved modestly in recent months. However, a sustained moderation in inflation pressures has yet to be convincingly demonstrated. Moreover, the high level of resource utilization has the potential to sustain those pressures.	Readings on core inflation have been relatively subdued in recent months and core inflation is expected to be moderate over coming quarters. However, the high level of resource utilization has the potential to sustain inflation pressures.	Readings on core inflation have been relatively subdued in recent months. However, a sustained moderation in inflation pressures has yet to be convincingly demonstrated. Moreover, the high level of resource utilization has the potential to sustain those pressures.	Readings on core inflation have been relatively subdued in recent months. However, a sustained moderation in inflation pressures has yet to be convincingly demonstrated. Overall inflation has been elevated, boosted by increases in the prices of energy and other commodities. The high level of resource utilization has the potential to sustain inflation pressures.
Assessment of Risk	4. In these circumstances, the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected. Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.	After this action, the Committee judges that the downside risk to economic growth is roughly balanced by the upside risk to inflation. Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.	In these circumstances, the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected. Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.	Even after this action, the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected. Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.

rebound. All three alternatives reiterate the view that the economy is likely to expand at a moderate rate in coming quarters. With regard to recent financial developments, Alternative A cites tighter credit conditions for some borrowers as a source of greater downside risk to growth, Alternative B notes the change in credit conditions without explicitly stating that it is a cause of increased risk, and Alternative C is silent. Data received during the intermeeting period confirmed that core inflation has been fairly low in recent months but also indicate that core inflation has not extended the decline that occurred earlier. Accordingly, all the alternatives refer to "relatively subdued" readings on core inflation in recent months rather than repeating the June language that core inflation "improved modestly in recent months." The alternatives differ in their assessment of the severity of the upside risks to the outlook for inflation. As always, the Committee could combine elements from different alternatives.

(18) If the Committee continues to view the current stance of policy as likely to foster sustainable growth and an acceptable trajectory for inflation, then it may wish to choose **Alternative B**, under which its target for the federal funds rate would remain at 5¼ percent for the time being. The real federal funds rate is close to its Greenbook-consistent equilibrium value (Chart 5), supporting a view that the current stance of policy is likely to promote a gradual easing of pressures on resources. Additionally, the current target for the funds rate remains close to prescriptions for near-term policy obtained from optimal policy simulations with a 2 percent inflation goal (Chart 6) and some of the policy rules shown in Chart 7. The Committee might agree with the staff's assessment that recent developments in financial markets are unlikely to impose substantial restraint on aggregate demand, given that credit remains readily available to most households and businesses. The Committee might also agree with the staff's view that, after a relatively brief interruption as the markets reassess credit risk, normal flows of credit probably will resume, though with risk spreads above the unusually low levels seen in the past few years. Even if the Committee is

less sanguine than the staff, members might decide that more concrete information about the economic effect of less readily available credit would be needed to warrant a change in the stance of monetary policy. Moreover, the Committee might judge that maintaining its current policy stance would provide a reasonable weighting of the risks to its dual objectives: On the one hand, weakness in housing and strains in credit markets could have a more pronounced effect on overall economic activity than foreseen in the staff forecast; on the other, the moderation in inflation may not be sustained.

(19) The draft statement for Alternative B reiterates the view that the economy is likely to continue expanding at a moderate pace over coming quarters. However, by citing tighter credit conditions for some households and businesses, it also suggests somewhat greater downside risk to growth. The draft acknowledges recent favorable readings on core inflation, characterizing them as "relatively subdued." At the same time, it points to continued upside inflation risk by repeating language from the June statement that "a sustained moderation in inflation pressures has yet to be convincingly demonstrated" and that "the high level of resource utilization has the potential to sustain those pressures." Even if members judge that downside risks to growth have increased in recent weeks and that upside risks to inflation have diminished, they may still see the risks as unbalanced and thus want to indicate that the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected. Taken as a whole, the language in Alternative B is slightly softer than the June statement, but it also suggests that the Committee does not expect the less accommodative conditions in credit markets to have a significant adverse effect on the economic expansion.

(20) Market participants see substantial odds of an easing of monetary policy in coming months but little chance of a rate cut at this meeting. In responding to the Desk's survey, most primary dealers said they expect no more than minor

modifications to the text of the accompanying statement, although one-third indicated they expect the Committee to mention deteriorating financial conditions. Alternative B seems generally consistent with those expectations, so a sizable market reaction to a statement such as that suggested in Alternative B appears unlikely. But markets might interpret the reference to tighter credit conditions for some households and businesses as a first step toward a possible easing, in which case the perceived probability of a rate cut in September would increase.

(21) The Committee might instead view recent data and developments as indicating that the balance of risks has shifted enough to warrant cutting the target federal funds rate by 25 basis points, as in **Alternative A.** The housing market appears to be weakening further, indicators of private spending outside of the housing sector have been mixed of late, and credit spreads have widened—perhaps suggesting that downside risks to growth have increased. Moreover, members might be concerned that recent financial strains could intensify, further reducing the availability of credit to households and businesses and weakening consumer and investment spending, as in the "Greater housing correction with spillovers to confidence and financial markets" scenario in the Greenbook. At the same time, recent subdued readings on core inflation may have increased the Committee's confidence that inflation pressures are gradually ebbing. Furthermore, with growth in labor compensation remaining moderate, the Committee might think that the equilibrium unemployment rate could be lower than currently estimated by the staff, as in the "Lower NAIRU" Greenbook alternative scenario, suggesting that core inflation could decline a bit more than in the staff forecast. In these circumstances, the Committee may judge that a slightly lower federal funds rate would more appropriately balance the increased risk of sluggish economic growth against the reduced upside risk to inflation.

(22) The draft statement in Alternative A continues to note that the economy seems likely to expand at a moderate pace, but it also explicitly recognizes that greater weakness in the housing sector and the diminished availability and higher cost of credit to riskier borrowers have raised the odds that the economy will grow less than expected. In the inflation paragraph, the draft language not only indicates that core inflation has been subdued in recent months, it also states that core inflation "is expected to be moderate over coming quarters" rather than repeating the view that "a sustained moderation in inflation pressures has yet to be convincingly demonstrated." But the statement would continue to indicate that the high level of resource utilization poses an upside risk to inflation. The statement could conclude by noting that, after the 25 basis point easing, the Committee views the downside risk to growth as roughly balanced by the upside risk to inflation. Such an assessment would imply that the Committee does not see the easing as likely to be the first of a sequence of moves.

(23) Although market participants think policy is likely to be eased in coming months, they would be quite surprised by a rate cut at this meeting, and shorter-term Treasury yields could decline somewhat. Investors may be so worried about credit exposures and downside risks to growth that they might interpret a rate cut and the statement's reference to tighter credit conditions as signaling that the Federal Reserve is quite concerned about financial strains and their implications for the economy. If so, credit spreads might continue to widen, equity prices might fall, and investors might anticipate further policy easing, causing medium-term Treasury yields to drop more than shorter-term yields. However, the statement's relatively upbeat assessment of growth prospects, and the implication that the Committee judges that the risk of adverse macroeconomic consequences stemming from recent developments in credit markets can be adequately mitigated by a modest rate cut, might reassure investors. If so, credit spreads might narrow and equity prices might increase.

(24) Even if the Committee does not believe that a policy easing is warranted at this meeting, it might judge, in light of the further weakening of the housing sector and the recent deterioration in financial conditions, that downside risks to growth have increased appreciably. And given the continued subdued readings on core inflation and moderate wage growth, the Committee might also see the upside risks to inflation as having diminished slightly in recent weeks. If the Committee judges that the downside risks to growth and the upside risks to inflation are now roughly balanced, it might wish to leave the stance of policy unchanged at this meeting but release a statement that combines the Alternative A language on real activity (A.2) with the Alternative B language on inflation (B.3) and the balanced risk assessment of Alternative A (A.4)—of course, it would be necessary to drop the phrase, "After this action." Investors likely would conclude from such a statement that the Federal Reserve now sees significant downside risks to growth and is preparing to ease. Yields on Treasury securities likely would decline. If investors found the prospect of an early easing reassuring, credit spreads could narrow and equity prices could rise. But credit spreads could widen and equity prices could fall if the statement's explicit recognition of downside risks to growth were to make investors more worried about the outlook.

(25) Although recent readings on core inflation have been subdued, overall inflation has been elevated, boosted by increases in the prices of oil and other commodities. Members may be concerned that high headline inflation might soon begin to boost inflation expectations, augmenting the upward pressure on core inflation that is already emanating from the pass-through effects of higher energy and commodity prices and perhaps from relatively tight labor and product markets. If so, the Committee might prefer to raise the funds rate 25 basis points at this meeting, as in **Alternative C**. Even under the baseline outlook, the optimal policy path shown in Chart 6 indicates that policy would need to be tightened about 1 percentage point

over the next year should the Committee wish to bring core inflation down to 1½ percent. Moreover, members might interpret the fairly strong rebound in second-quarter real GDP growth and the solid job gains seen through the spring as indications that there could be greater strength in aggregate demand going forward than suggested in the staff forecast. Another possible reason for expecting greater strength in aggregate demand is that the NIPA revisions revealed that the personal saving rate has been higher than previously estimated, perhaps suggesting, as in the "Flat saving rate" alternative in the Greenbook, that households feel less need to restrain growth in spending than envisioned in the staff forecast. If members expect stronger growth in aggregate demand than projected in the Greenbook, they may be concerned that pressures on resource utilization will intensify—especially if they share the staff's view that the revised GDP data indicate that trend productivity growth and the economy's sustainable growth rate are lower than previously estimated.

(26) The statement accompanying Alternative C could reiterate the assessment that the economy seems likely to expand at a moderate pace, but reorder the clauses to underscore the view that the adjustment in the housing sector appears unlikely to derail the economic expansion. It could also point to the rebound in growth in the second quarter rather than to moderate growth in the first half. The inflation paragraph could note the subdued readings on core inflation in recent months but repeat June's message that a few months of good inflation news does not convincingly demonstrate a sustained moderation in inflation pressures. The statement could also point to the elevated level of overall inflation, in effect providing an additional rationale for the Committee's policy decision. The statement could conclude by noting that, even after the increase in the funds rate, the Committee's predominant policy concern remains the upside risk to inflation.

(27) A tightening of monetary policy at this meeting would come as a complete surprise to market participants. Shorter-term market interest rates would rise, but

forward yields could fall as the announcement likely would lower investors' outlook for medium-term inflation and economic growth. The net effect on longer-term Treasury yields is thus ambiguous. The foreign exchange value of the dollar would probably appreciate, spreads on private credit obligations likely would widen, and equity prices likely would decline. Given the apparent reduction in investors' appetite for risky assets in recent weeks, and the large movements in asset prices in response to news that suggested greater downside risk, the market reaction to a tightening move at this time could well be unusually sharp.

Money and Debt Forecasts

(28) Under the Greenbook forecast, M2 is projected to expand about 5¼ percent this year and 4½ percent next year. Those growth rates are about ¼ percentage point slower than in the June forecast, reflecting the downward revision in the Greenbook forecast for nominal GDP growth. Opportunity costs of holding money are expected to edge down further over the remainder of this year, as deposit rates continue to catch up with earlier increases in short-term interest rates, and accordingly M2 grows a bit faster than nominal GDP.

(29) Growth of domestic nonfinancial sector debt is projected to slow from 8 percent in 2006 to 6½ percent this year and about 5¼ percent in 2008. These projections are a shade below those in the June forecast, primarily reflecting the downward revisions to residential investment and business fixed investment in the staff forecast. Growth of household debt is projected to slow from 8¾ percent during 2006 to 5¼ percent in 2007 and 4½ percent in 2008. Flat house prices, higher mortgage rates, and tighter credit standards all are expected to contribute to slower growth of mortgage debt this year and next. As in June, the staff predicts that corporate borrowing will slow in the second half of this year, as the pace of funding for merger and acquisition activity and share repurchases moves down from its recent

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

		25 bp Easing	No Change/ Greenbook Forecast*	25 bp Tightening
	Monthly Growth Rates			
	Apr-07	9.1	9.1	9.1
	May-07	3.8	3.8	3.8
	Jun-07	2.4	2.4	2.4
	Jul-07	3.7	3.7	3.7
	Aug-07	3.7	3.5	3.3
	Sep-07	3.8	3.2	2.6
	Oct-07	4.6	3.8	3.0
	Nov-07	4.2	3.5	2.7
	Dec-07	5.3	4.7	4.1
	Quarterly Growth Rates			
	2006 Q3	4.0	4.0	4.0
	2006 Q4	6.4	6.4	6.4
	2007 Q1	7.1	7.1	7.1
	2007 Q2	6.7	6.7	6.7
	2007 Q3	3.4	3.3	3.2
	2007 Q4	4.3	3.7	3.0
	Annual Growth Rates			
	2006	4.9	4.9	4.9
	2007	5.5	5.3	5.1
	2008	4.8	4.6	4.4
Growth From	To			
Jul-07	Dec-07	4.4	3.8	3.2
2007 Q2	2007 Q4	3.9	3.5	3.1

* 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.

elevated level. Even so, corporate debt is projected to rise at an average 6½ percent annual rate over the forecast period, as companies are anticipated to rely less on profits and more on credit markets to finance moderate growth in capital expenditures. The staff projects that higher credit spreads will have some restraining effect on growth in corporate debt, and that recent turmoil in financial markets will result in some debt issuance being postponed to later this year, but it does not expect these developments to hold back business investment appreciably.

Directive and Balance of Risks Statement

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. After this action, the Committee judges that the downside risk to economic growth is roughly balanced by the upside risk to inflation. Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.

B. In these circumstances, the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected. Future policy adjustments will depend on the evolution of the outlook for both inflation and economic growth, as implied by incoming information.

C. Even after this action, the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected. 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 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. For the current quarter and the previous quarter, the inflation rate is computed using the staff's estimate of the core PCE price index.

Confidence intervals reflect uncertainties about model specification, coefficients, and the level of potential output. The final column of the table indicates 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 1988:1-2006:4; 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	$i_t = 1.20 i_{t-1} - 0.39 i_{t-2} + 0.19[1.17 + 1.73\,\pi_t + 3.66(y_t - y_t^*) - 2.72(y_{t-1} - y_{t-1}^*)]$
Forecast-based rule	$i_t = 1.18 i_{t-1} - 0.38 i_{t-2} + 0.20[0.98 + 1.72\,\pi_{t+2\|t} + 2.29(y_{t+1\|t} - y_{t+1\|t}^*) - 1.37(y_{t-1} - y_{t-1}^*)]$
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 were followed starting at this FOMC meeting. The dotted line labeled "Previous Bluebook" is based on the current specification of the policy rule, applied to the previous Greenbook projection. 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.

References:

Taylor, John B. (1993). "Discretion versus policy rules in practice," *Carnegie-Rochester Conference Series on Public Policy*, vol. 39 (December), pp. 195-214.

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

Orphanides, Athanasios (2003). "Historical Monetary Policy Analysis and the Taylor Rule," *Journal of Monetary Economics*, vol. 50 (July), pp. 983-1022.

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
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
07 -- High	5.41	5.27	5.19	5.19	5.34	5.27	5.12	5.16	5.33	5.44	2.77	2.81	6.86	4.77	6.74	5.75
-- Low	5.19	4.05	4.55	4.86	5.28	5.18	4.56	4.40	4.58	4.74	1.97	2.15	6.09	4.38	6.14	5.40
Monthly																
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
Jan 07	5.25	4.92	5.11	5.15	5.32	5.22	4.88	4.72	4.83	4.96	2.45	2.45	6.34	4.55	6.22	5.47
Feb 07	5.26	5.18	5.16	5.16	5.31	5.22	4.85	4.68	4.80	4.94	2.33	2.38	6.28	4.53	6.29	5.51
Mar 07	5.26	5.22	5.08	5.10	5.30	5.23	4.62	4.46	4.65	4.83	2.04	2.20	6.27	4.41	6.16	5.44
Apr 07	5.25	4.99	5.01	5.07	5.31	5.23	4.71	4.57	4.77	4.96	2.11	2.28	6.39	4.47	6.18	5.45
May 07	5.25	4.81	4.87	4.98	5.31	5.22	4.79	4.64	4.82	4.99	2.25	2.39	6.39	4.49	6.26	5.52
Jun 07	5.25	4.51	4.74	4.95	5.33	5.24	5.01	5.00	5.17	5.30	2.66	2.69	6.70	4.73	6.66	5.68
Jul 07	5.26	4.80	4.96	5.04	5.32	5.23	4.84	4.86	5.08	5.20	2.62	2.66	6.65	4.69	6.70	5.71
Weekly																
Jun 1 07	5.27	4.88	4.82	4.98	5.32	5.24	4.94	4.83	4.97	5.12	2.49	2.54	6.51	4.57	6.42	5.57
Jun 8 07	5.24	4.77	4.80	4.97	5.32	5.22	5.01	4.96	5.09	5.21	2.60	2.63	6.62	4.69	6.53	5.65
Jun 15 07	5.26	4.59	4.66	4.93	5.33	5.26	5.08	5.10	5.27	5.38	2.73	2.76	6.79	4.77	6.74	5.75
Jun 22 07	5.25	4.35	4.69	4.94	5.33	5.24	5.00	5.02	5.21	5.34	2.68	2.71	6.73	4.74	6.69	5.66
Jun 29 07	5.26	4.29	4.80	4.97	5.33	5.24	4.94	4.95	5.16	5.29	2.65	2.69	6.68	4.71	6.67	5.65
Jul 6 07	5.27	4.67	4.95	5.02	5.33	5.23	4.96	4.97	5.17	5.28	2.67	2.72	6.69	4.70	6.63	5.71
Jul 13 07	5.24	4.70	4.96	5.04	5.32	5.24	4.95	4.97	5.18	5.28	2.68	2.73	6.69	4.71	6.73	5.71
Jul 20 07	5.27	4.75	4.97	5.06	5.32	5.23	4.88	4.90	5.11	5.21	2.66	2.69	6.62	4.70	6.73	5.72
Jul 27 07	5.27	4.97	4.96	5.03	5.32	5.24	4.71	4.72	4.97	5.10	2.55	2.57	6.61	4.63	6.69	5.69
Aug 3 07	--	5.04	4.93	4.98	5.33	5.24	4.61	4.60	4.88	5.02	2.48	2.50	--	--	6.68	5.59
Daily																
Jul 17 07	5.28	4.77	4.96	5.08	5.33	5.25	4.94	4.96	5.16	5.25	2.74	2.75	6.67	--	--	--
Jul 18 07	5.26	4.77	4.96	5.05	5.33	5.22	4.87	4.88	5.10	5.19	2.63	2.67	6.60	--	--	--
Jul 19 07	5.25	4.76	4.98	5.06	5.32	5.24	4.89	4.91	5.12	5.21	2.65	2.67	6.63	--	--	--
Jul 20 07	5.25	4.74	4.97	5.05	5.32	5.22	4.80	4.83	5.04	5.16	2.60	2.63	6.57	--	--	--
Jul 23 07	5.26	4.85	5.02	5.10	5.32	5.22	4.83	4.83	5.05	5.16	2.66	2.66	6.58	--	--	--
Jul 24 07	5.25	5.05	5.02	5.08	5.32	5.22	4.79	4.79	5.02	5.15	2.61	2.61	6.59	--	--	--
Jul 25 07	5.32	5.04	4.99	5.05	5.32	5.25	4.77	4.76	5.00	5.13	2.57	2.58	6.57	--	--	--
Jul 26 07	5.28	4.99	4.92	4.96	5.33	5.25	4.58	4.60	4.88	5.04	2.46	2.51	6.62	--	--	--
Jul 27 07	5.25	4.90	4.85	4.95	5.32	5.25	4.57	4.60	4.89	5.04	2.47	2.51	6.67	--	--	--
Jul 30 07	5.29	4.95	4.96	5.00	5.33	5.26	4.62	4.63	4.91	5.06	2.48	2.51	6.70	--	--	--
Jul 31 07	5.28	5.13	4.96	4.99	5.33	5.23	4.59	4.60	4.87	5.02	2.45	2.47	6.63	--	--	--
Aug 1 07	5.30	5.06	4.89	4.96	5.33	5.23	4.59	4.59	4.86	5.01	2.48	2.49	6.62	--	--	--
Aug 2 07	5.22 p	5.03	4.89	4.95	5.34	--	4.62	4.60	4.87	5.01	2.50	2.51	--	--	--	--

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

MFMA

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	5.3	5.3
2005	0.3	4.1	5.1
2006	-0.4	4.9	6.3
Quarterly (average)			
2006-Q3	-3.4	4.0	5.9
Q4	-0.3	6.4	8.1
2007-Q1	-0.4	7.1	8.9
Q2	2.2	6.7	7.8
Monthly			
2006-July	-3.4	4.2	6.1
Aug.	0.1	4.6	5.7
Sep.	-7.2	3.8	6.5
Oct.	4.4	8.6	9.7
Nov.	1.3	6.1	7.3
Dec.	-4.2	6.9	9.6
2007-Jan.	5.3	8.9	9.8
Feb.	-10.0	3.8	7.2
Mar.	8.0	9.4	9.8
Apr.	8.2	9.1	9.3
May	0.0	3.8	4.8
June	-10.9	2.4	5.6
July e	-0.3	3.7	4.6
Levels ($billions):			
Monthly			
2007-Feb.	1360.8	7095.9	5735.1
Mar.	1369.9	7151.6	5781.7
Apr.	1379.3	7206.1	5826.7
May	1379.3	7229.1	5849.8
June	1366.8	7243.8	5877.0
Weekly			
2007-June 4	1406.8	7228.1	5821.3
11	1380.6	7233.7	5853.1
18	1356.5	7254.5	5897.9
25	1350.4	7262.2	5911.8
July 2	1367.1	7265.6	5898.5
9	1372.0	7252.2	5880.2
16p	1370.6	7264.6	5894.0
23p	1360.3	7272.7	5912.4

p preliminary
e estimated

Appendix C Table 3
Changes in System Holdings of Securities [1]
(Millions of dollars, not seasonally adjusted)

August 2, 2007

	Treasury Bills			Treasury Coupons						Federal	Net change	Net RPs [5]		
	Net Purchases [2]	Redemptions (-)	Net Change	Net Purchases [3] < 1	1-5	5-10	Over 10	Redemptions (-)	Net Change	Agency Redemptions (-)	total outright 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
2006 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
2007 QI	---	---	---	817	1,061	---	---	---	1,878	---	1,878	-2,815	1,059	-1,755
QII	---	---	---	1,394	6,478	290	640	---	8,802	---	8,802	1,520	-4,673	-3,153
2006 Dec	---	---	---	---	4,979	445	1,072	---	6,496	---	6,496	2,851	-155	2,696
2007 Jan	---	---	---	---	---	---	---	---	---	---	---	-428	-3,806	-4,234
Feb	---	---	---	817	1,061	---	---	---	1,878	---	1,878	-6,853	3,911	-2,941
Mar	---	---	---	---	---	---	---	---	---	---	---	1,965	-492	1,473
Apr	---	---	---	1,394	3,742	290	640	---	6,066	---	6,066	1,250	-2,425	-1,174
May	---	---	---	---	2,736	---	---	---	2,736	---	2,736	2,165	-4,930	-2,765
Jun	---	---	---	---	---	---	---	---	---	---	---	-331	97	-234
Jul	---	---	---	---	---	---	---	---	---	---	---	1,600	-903	697
2007 May 9	---	---	---	---	2,736	---	---	---	2,736	---	2,736	-12,836	1,000	-11,836
May 16	---	---	---	---	---	---	---	---	---	---	---	-3,065	2,000	-1,065
May 23	---	---	---	---	---	---	---	---	---	---	---	6,119	-2,000	4,119
May 30	---	---	---	---	---	---	---	---	---	---	---	-2,764	6,000	3,236
Jun 6	---	---	---	---	---	---	---	---	---	---	---	3,241	-1,000	2,241
Jun 13	---	---	---	---	---	---	---	---	---	---	---	-3,578	-3,000	-6,578
Jun 20	---	---	---	---	---	---	---	---	---	---	---	2,201	---	2,201
Jun 27	---	---	---	---	---	---	---	---	---	---	---	-1,000	-3,000	-4,000
Jul 4	---	---	---	---	---	---	---	---	---	---	---	4,027	4,000	8,027
Jul 11	---	---	---	---	---	---	---	---	---	---	---	-4,816	1,000	-3,816
Jul 18	---	---	---	---	---	---	---	---	---	---	---	3,801	-4,000	-199
Jul 25	---	---	---	---	---	---	---	---	---	---	---	-3,613	---	-3,613
Aug 1	---	---	---	---	---	---	---	---	---	---	---	6,094	-1,000	5,094
2007 Aug 2	---	---	---	---	---	---	---	---	---	---	---	-1,668	-1,000	-2,668
Intermeeting Period														
Jun 28-Aug 2	---	---	---	---	---	---	---	---	---	---	---	1,670	-1,000	670
Memo: LEVEL (bil. $)														
Aug 2			277.0	122.6	238.1	69.4	83.7		513.8	---	790.8	-19.5	10.0	-9.5

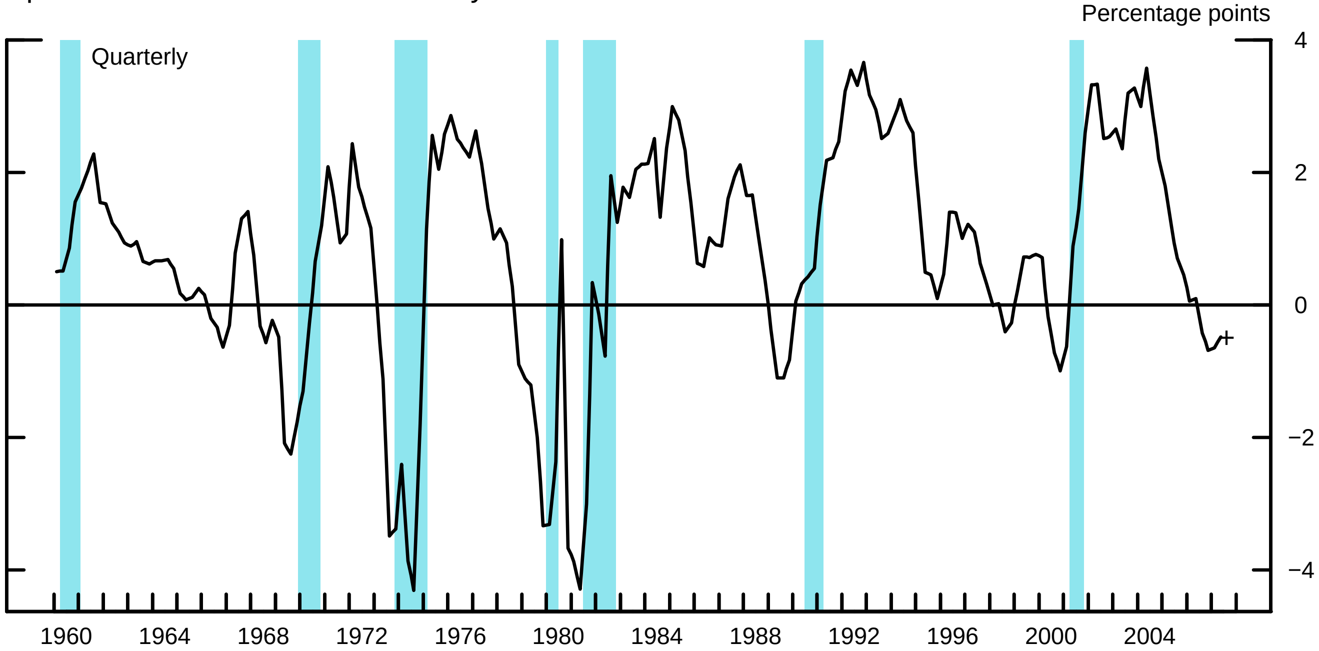
1. Change from end-of-period to end-of-period. Excludes changes in compensation for the effects of inflation on the principal of inflation-indexed securities.
2. Outright purchases less outright sales (in market and with foreign accounts).
3. Outright purchases less outright sales (in market and with 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:BEW

Appendix C Chart 1

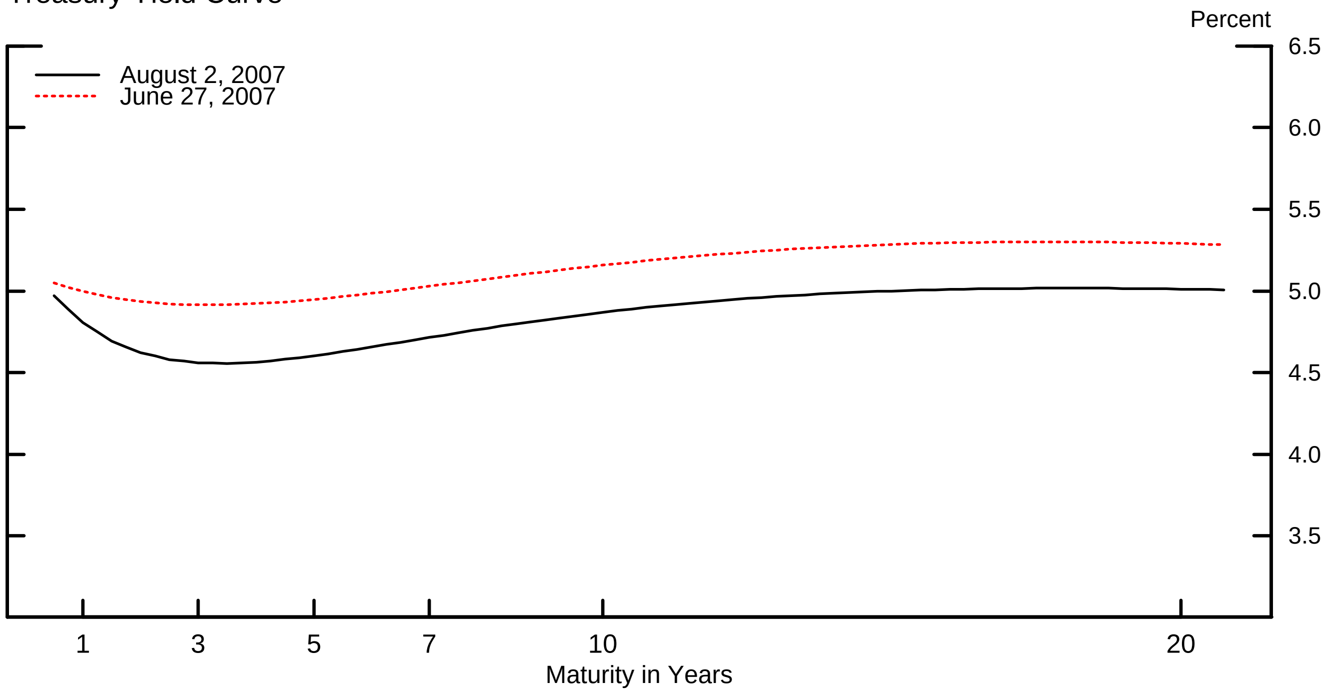
Treasury Yield Curve

Spread Between Ten−Year Treasury Yield and Federal Funds Rate



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

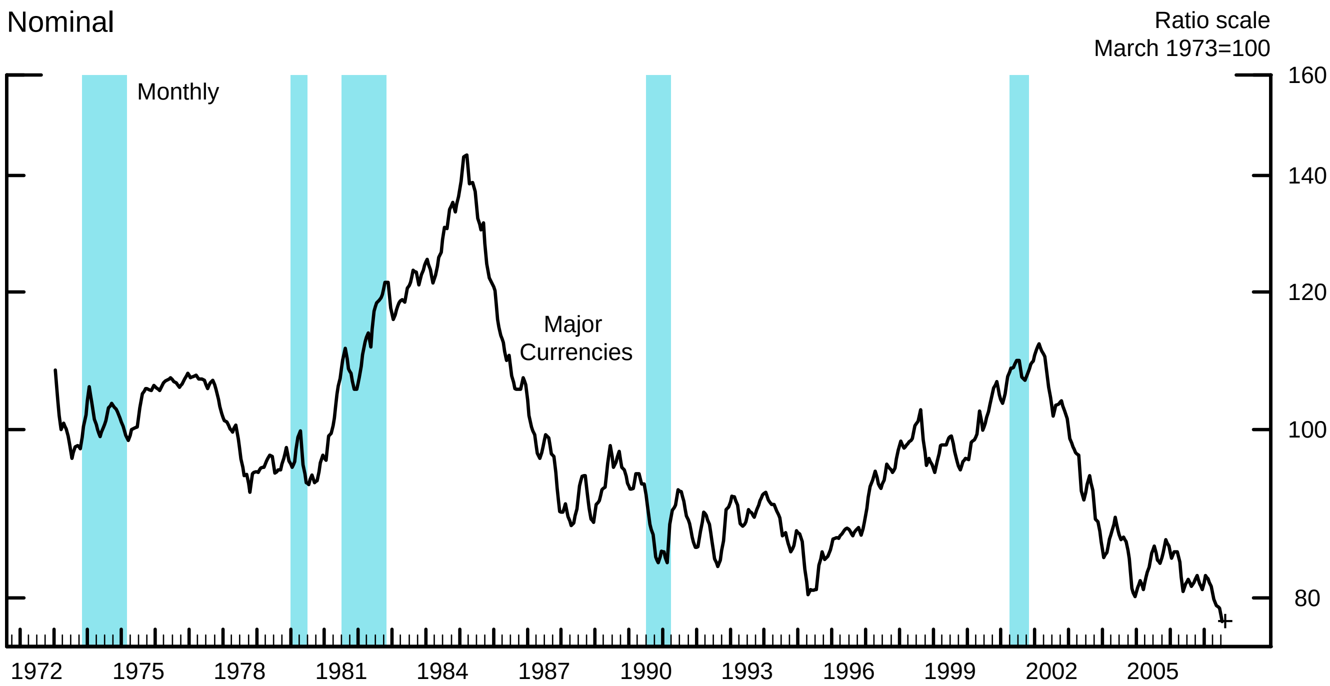
Treasury Yield Curve*



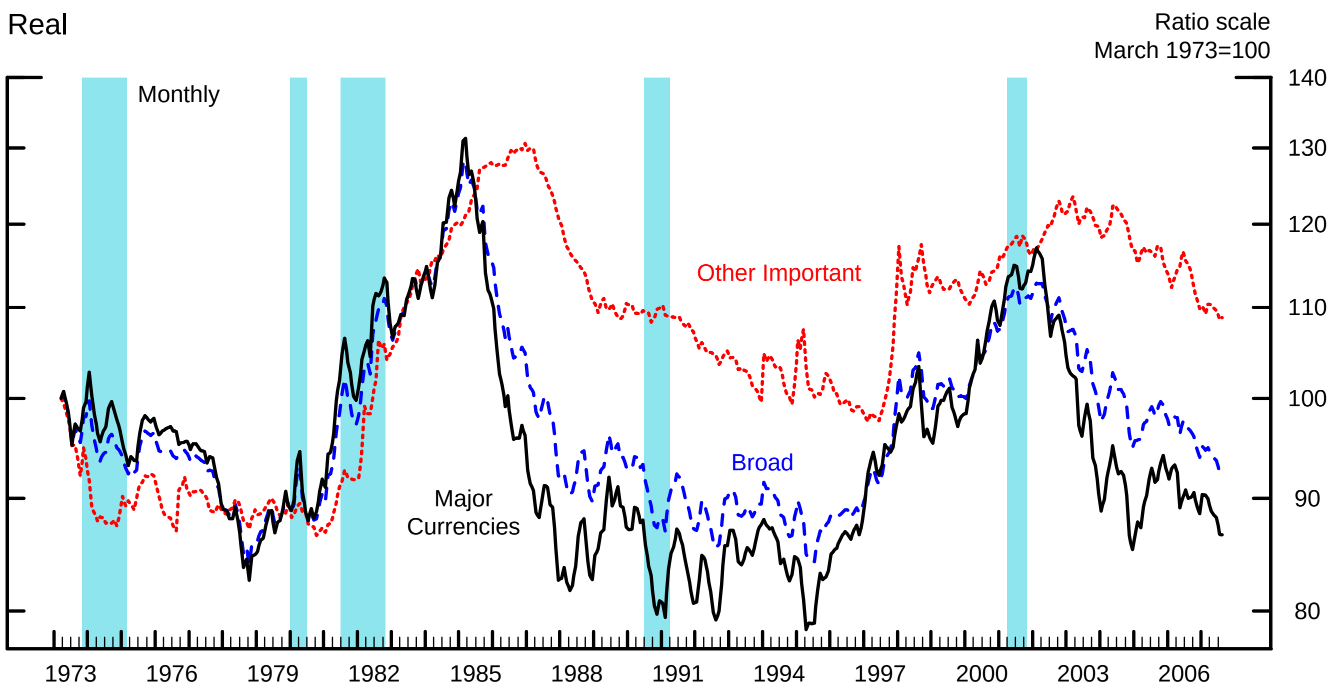
*Smoothed yield curve estimated from off−the−run Treasury coupon securities. Yields shown are those on notional par Treasury securities with semi−annual coupons.

Appendix C Chart 2

Dollar Exchange Rate Indexes



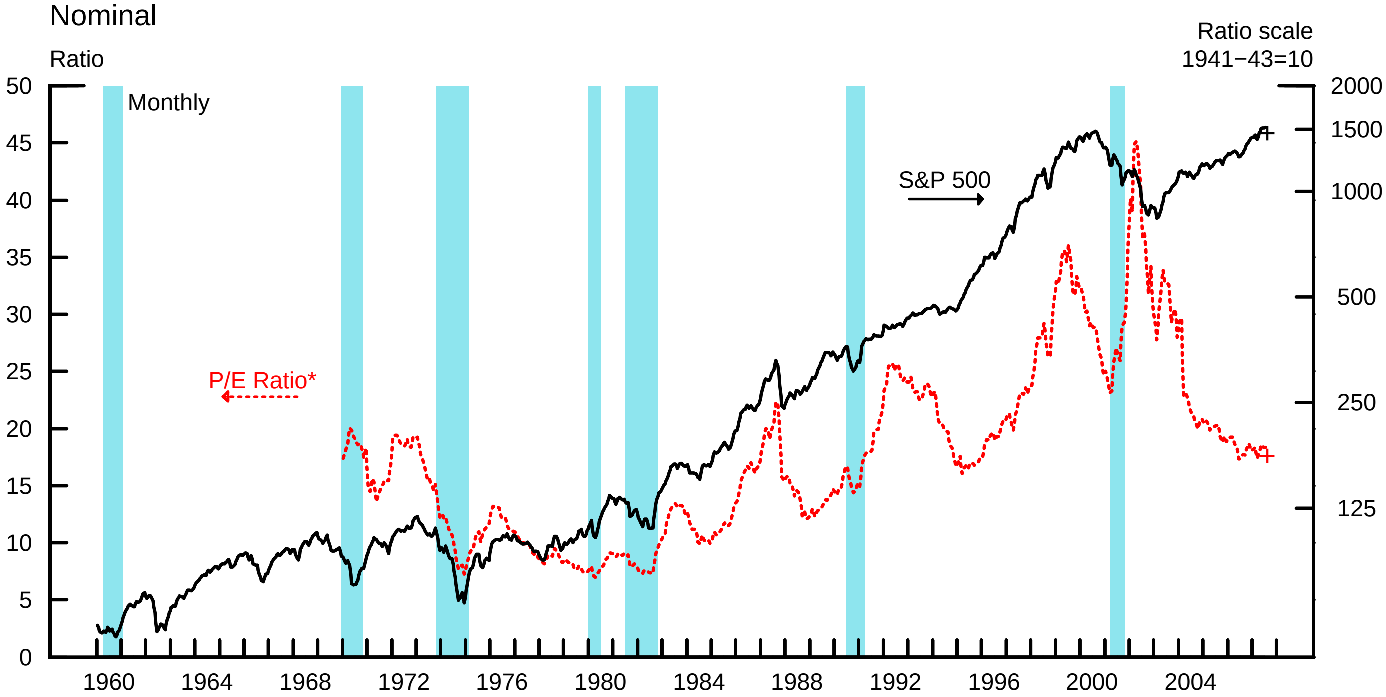
+ Denotes most recent weekly value.



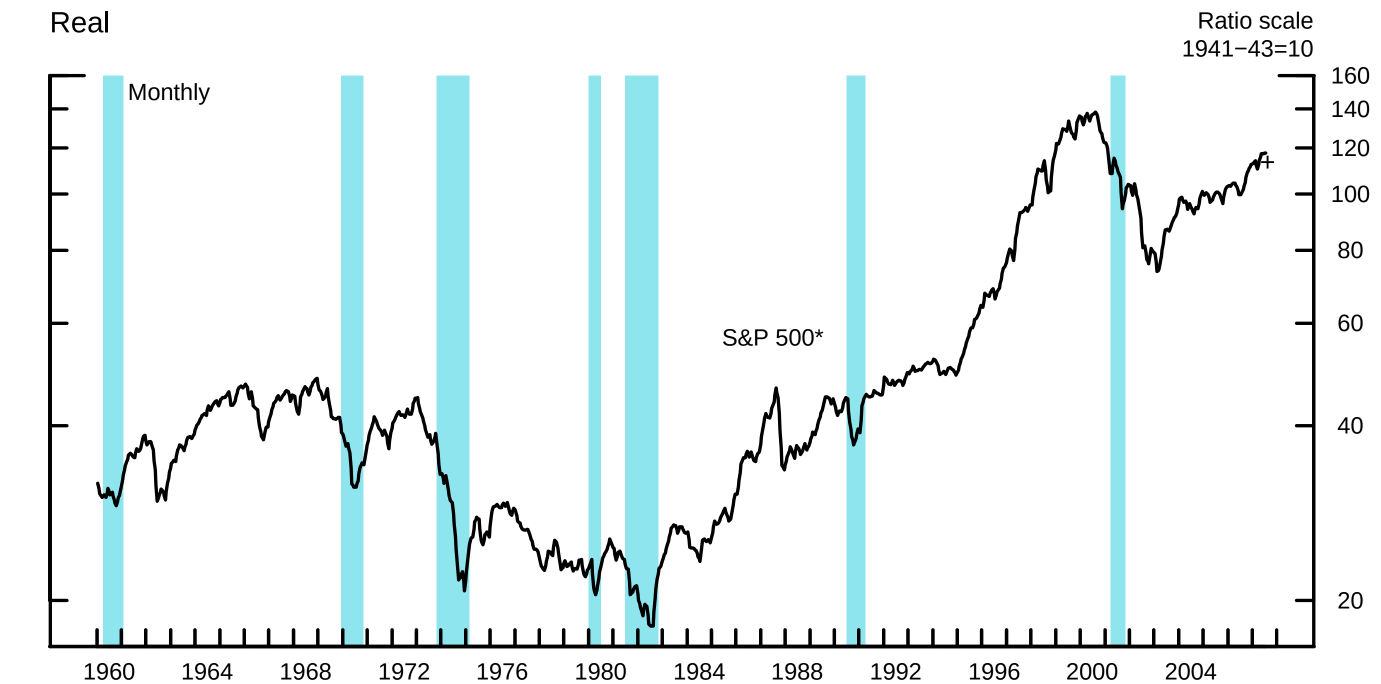
Note. The major currencies index is the trade−weighted average of currencies of the euro area, Canada, Japan, the U.K., Switzerland, Australia, and Sweden. The other important trading partners index is the trade−weighted average of currencies of 19 other important trading partners. The Broad index is 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. The most recent monthly observations are based on staff forecasts of CPI inflation for those countries where actual data are not yet available.

Appendix C Chart 3

Stock Indexes



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

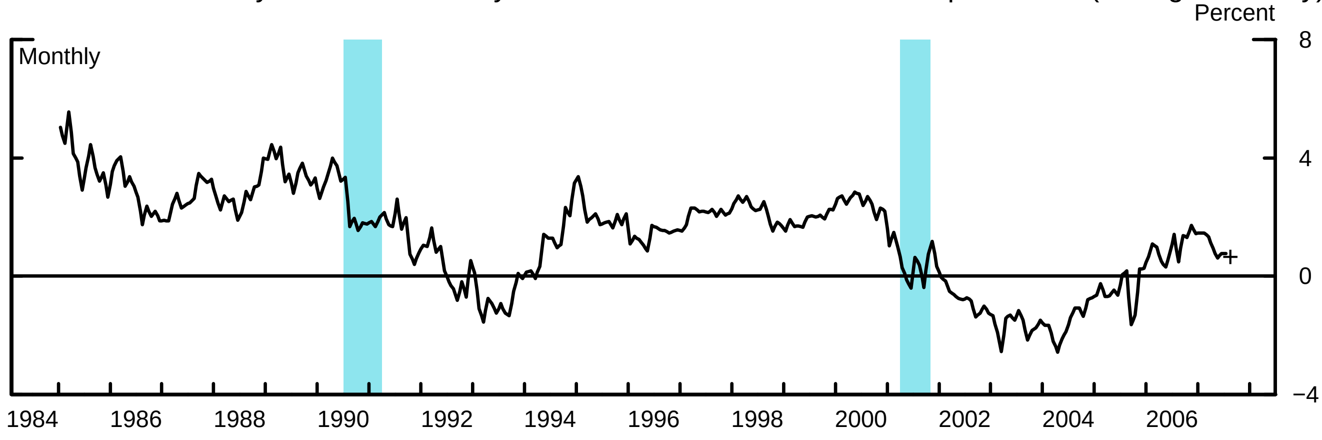


* Deflated by the CPI.
\+ Denotes most recent weekly value.
Note. Blue shaded regions denote NBER−dated recessions.

Appendix C Chart 4

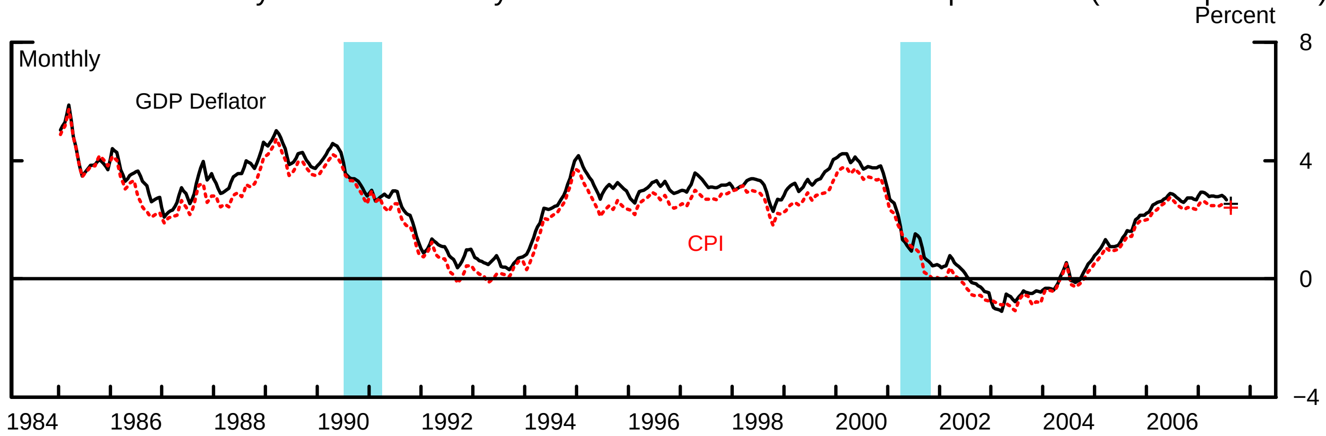
One−Year Real Interest Rates

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



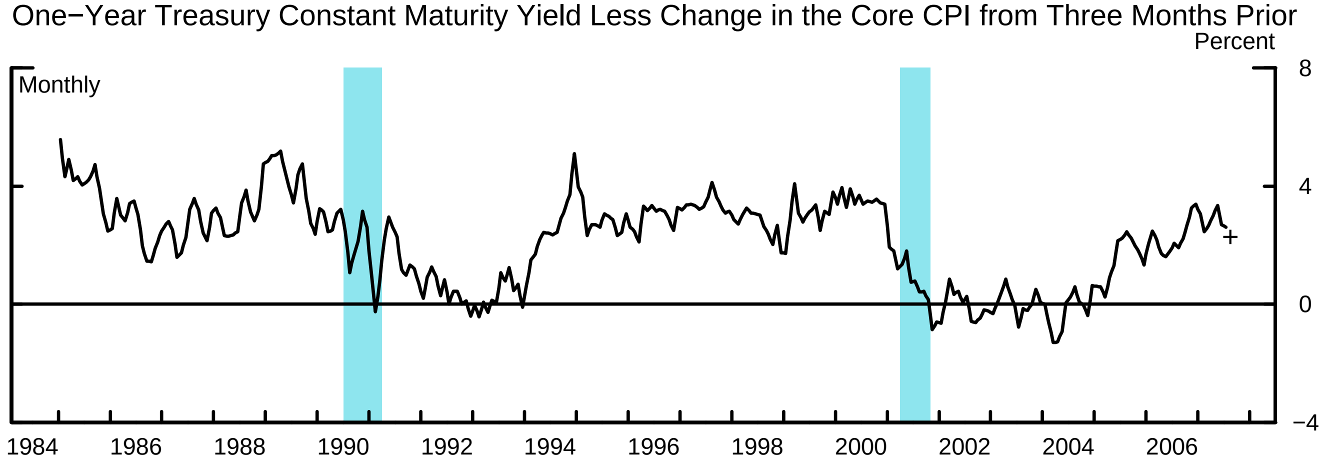
* Mean value of respondents.

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

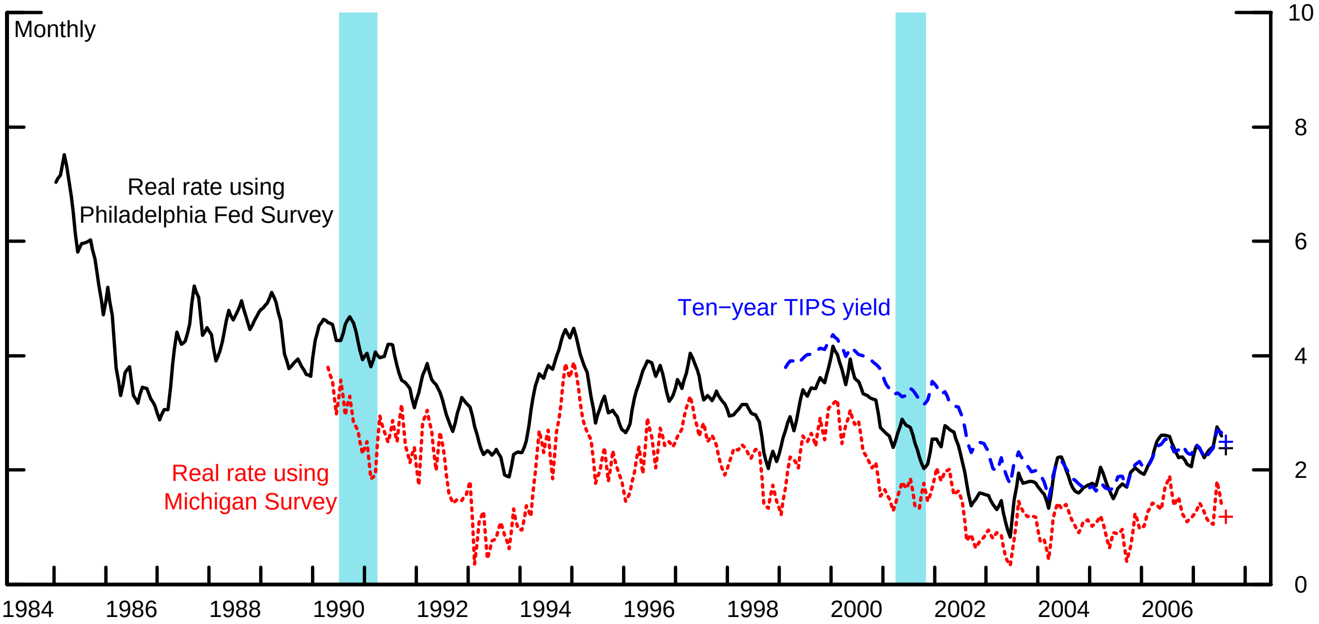


+ Denotes most recent weekly Treasury constant maturity yield less most recent inflation expectation.
Note. Blue shaded regions denote NBER−dated recessions.

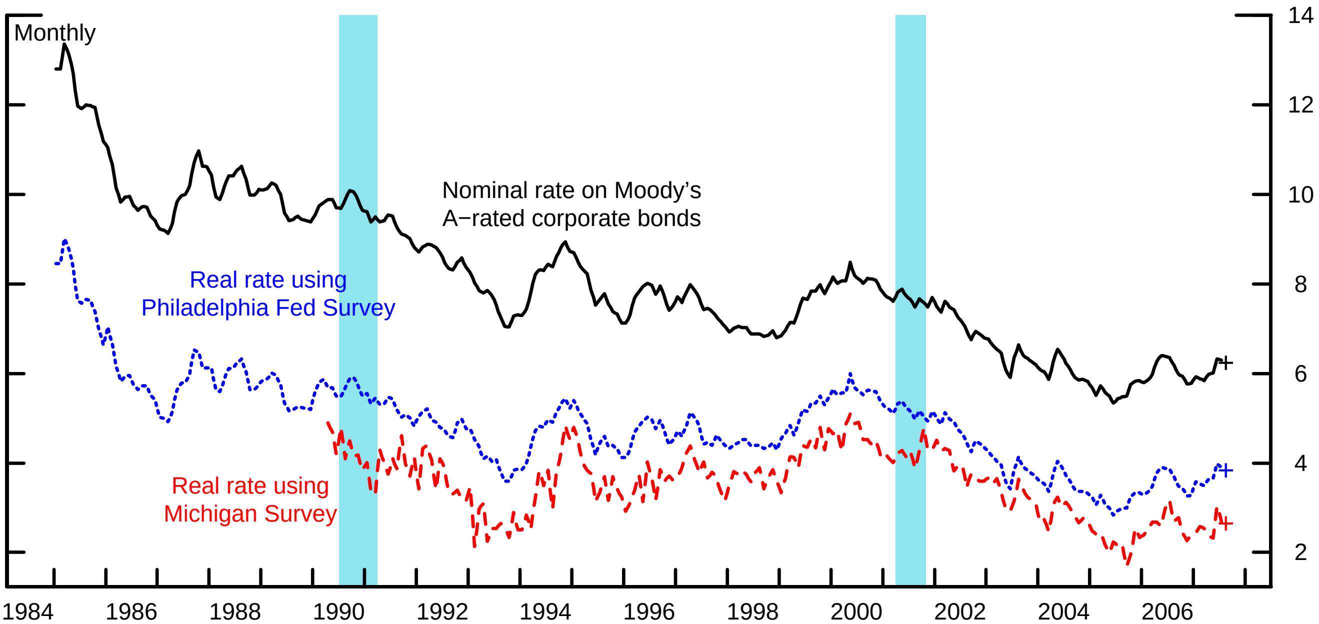
Appendix C Chart 5

Long−Term Real Interest Rates*

Real Ten−Year Treasury Yields



Nominal and Real Corporate Bond Rates



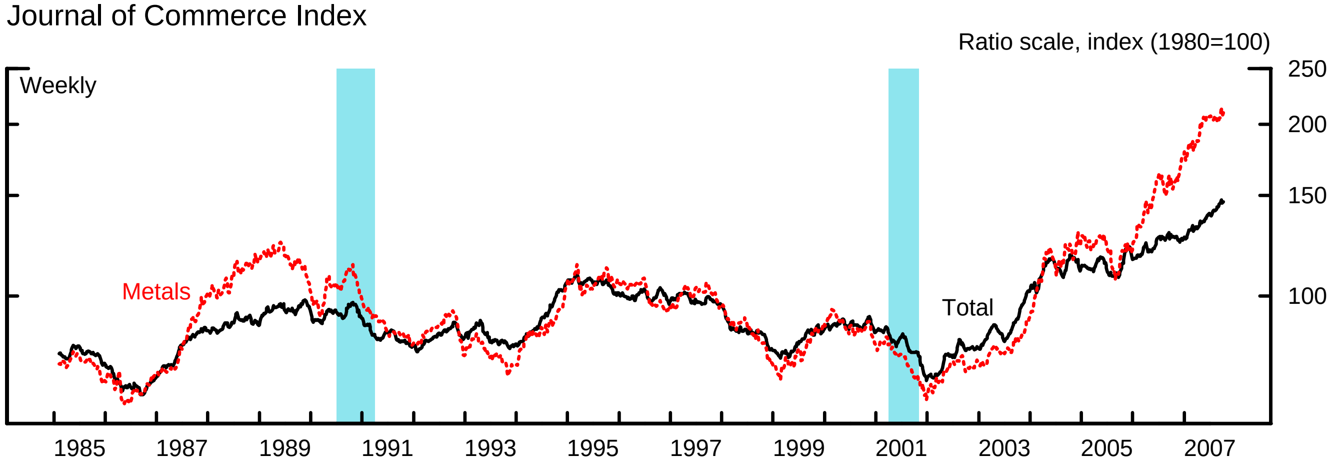
* For real rates, measures using the Philadelphia Fed Survey employ the ten−year inflation expectations from the Blue Chip Survey until April 1991 and the Philadelphia Federal Reserve Bank Survey of Professional Forecasters thereafter (median value of respondents). Measures using the Michigan Survey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

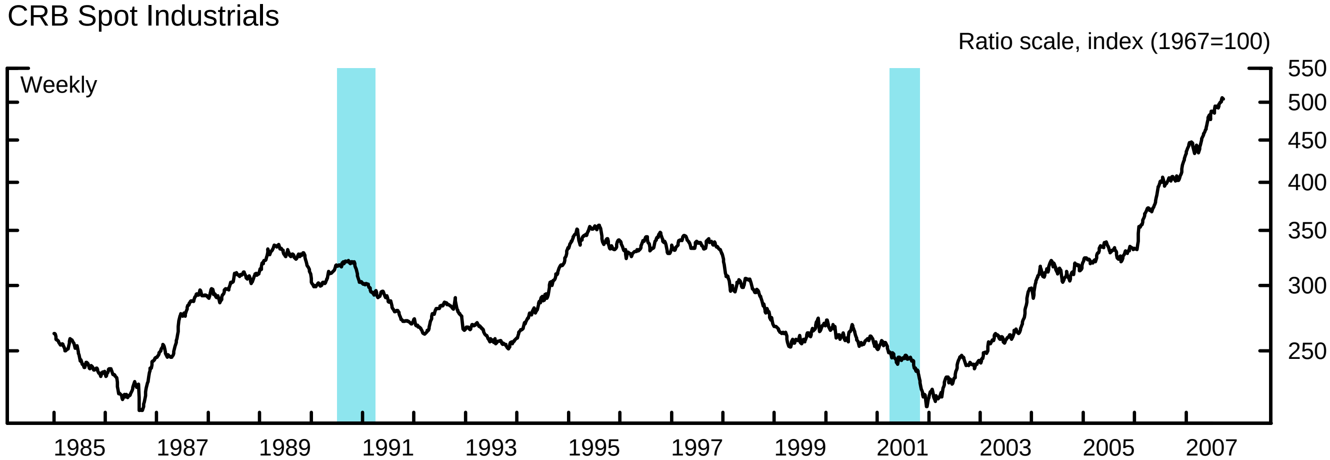
+ For TIPS and nominal corporate rate, denotes the most recent weekly value. For other real rate series, denotes the most recent weekly nominal yield less the most recent inflation expectation.

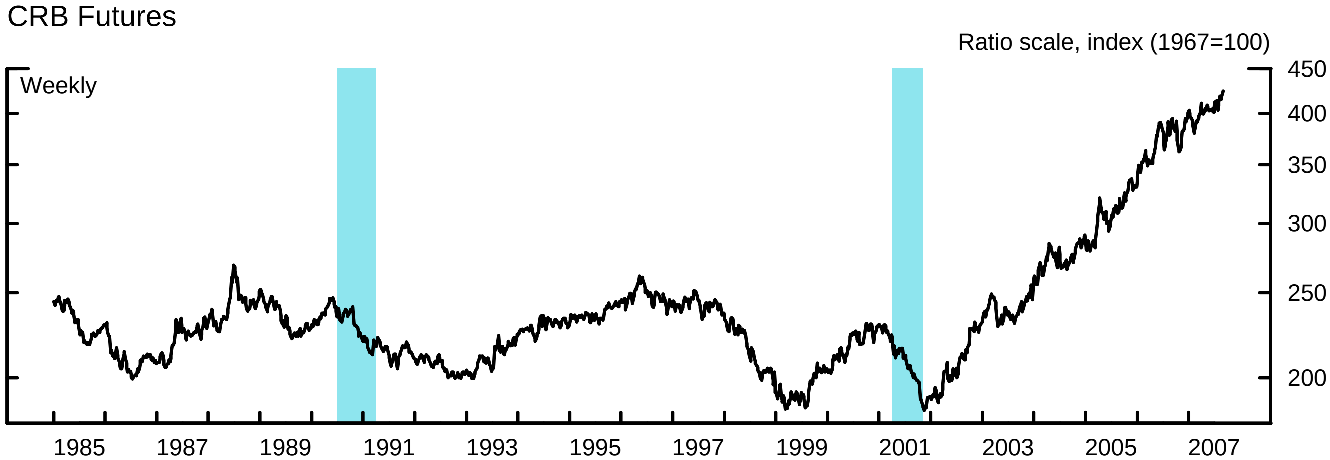
Note. Blue shaded regions denote NBER−dated recessions.

Appendix C Chart 6

Commodity Price Measures





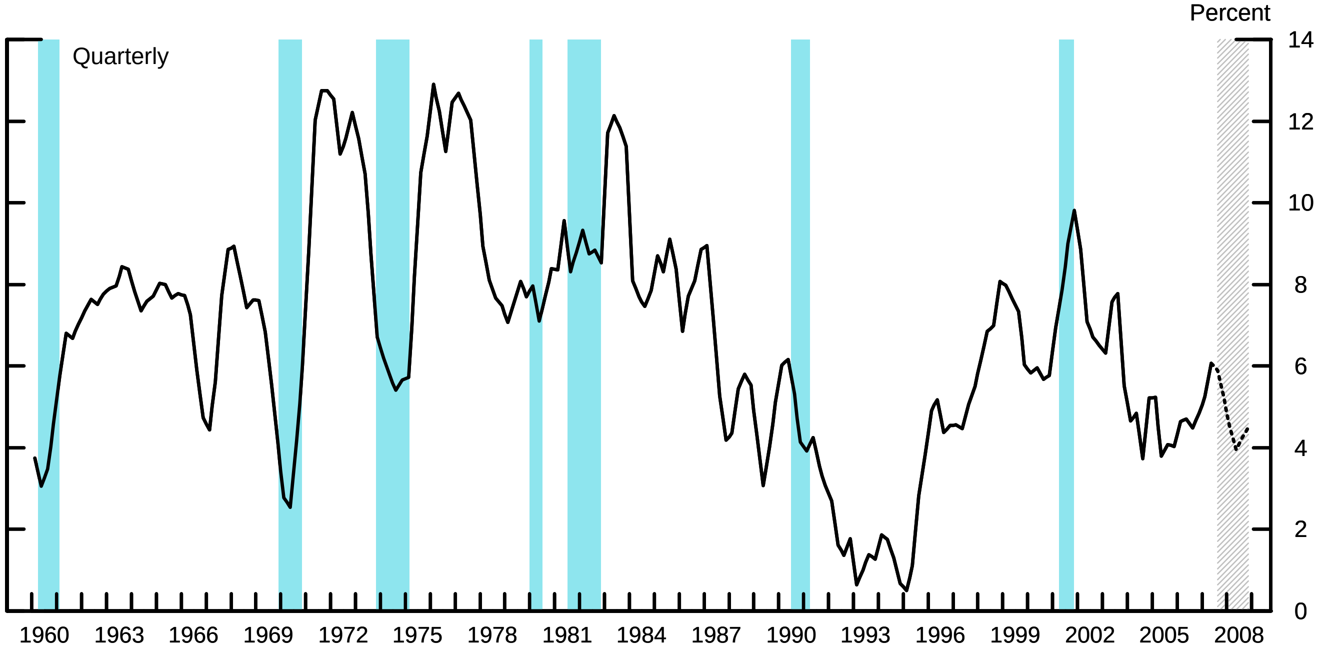


Note. Blue shaded regions denote NBER−dated recessions.

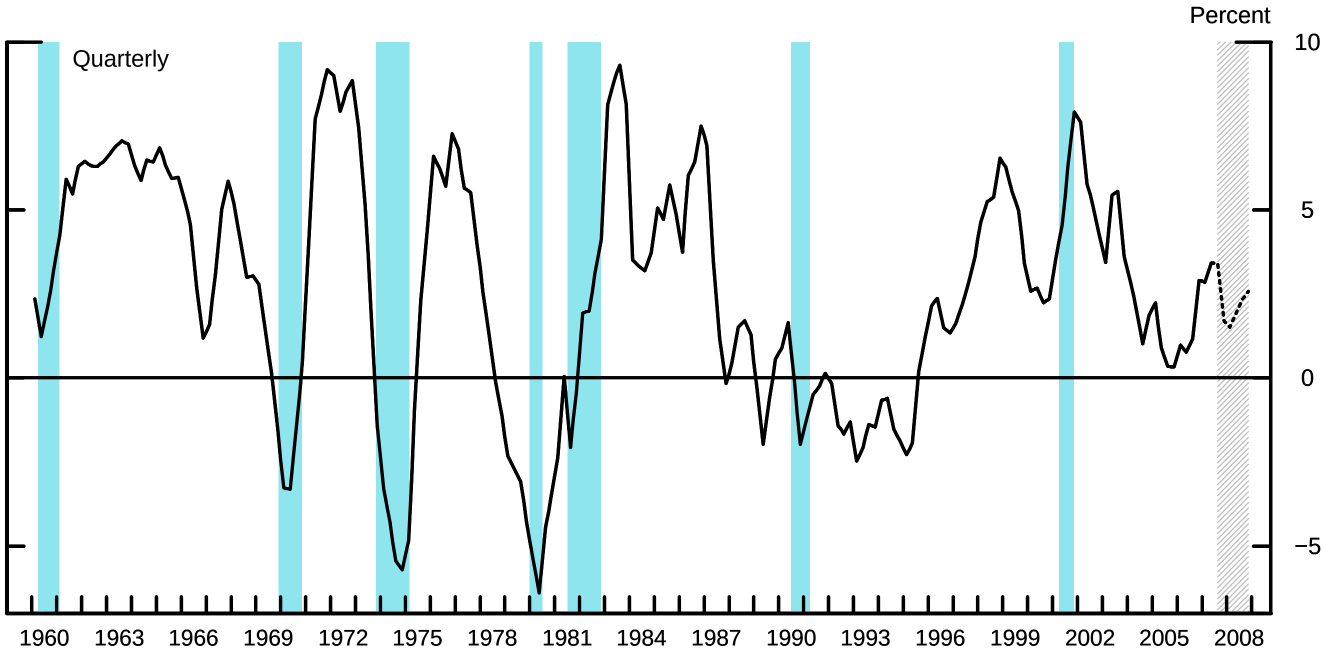
Appendix C Chart 7

Growth of M2

Nominal M2



Real M2

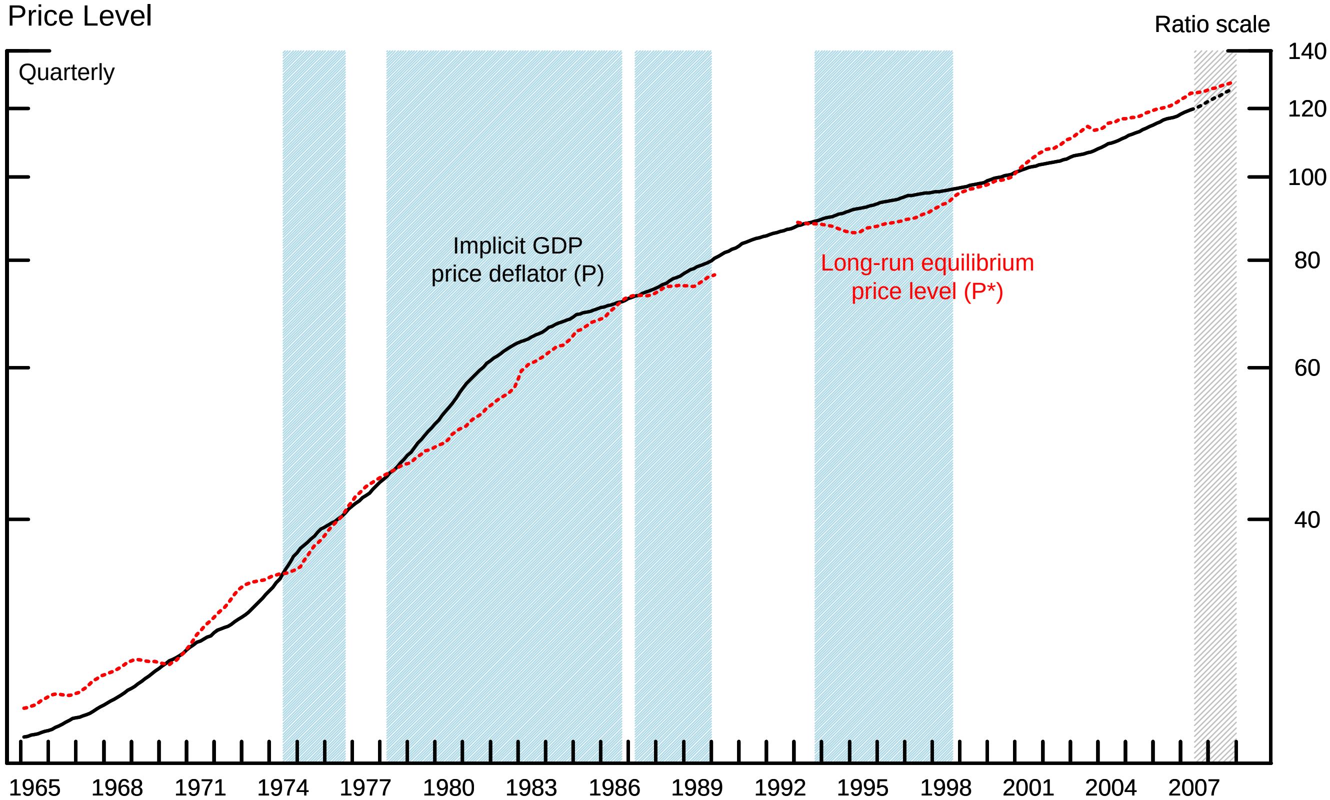


Note. Four−quarter moving average. Blue shaded regions denote NBER−dated recessions. Gray areas denote projection period. Real M2 is deflated by CPI.

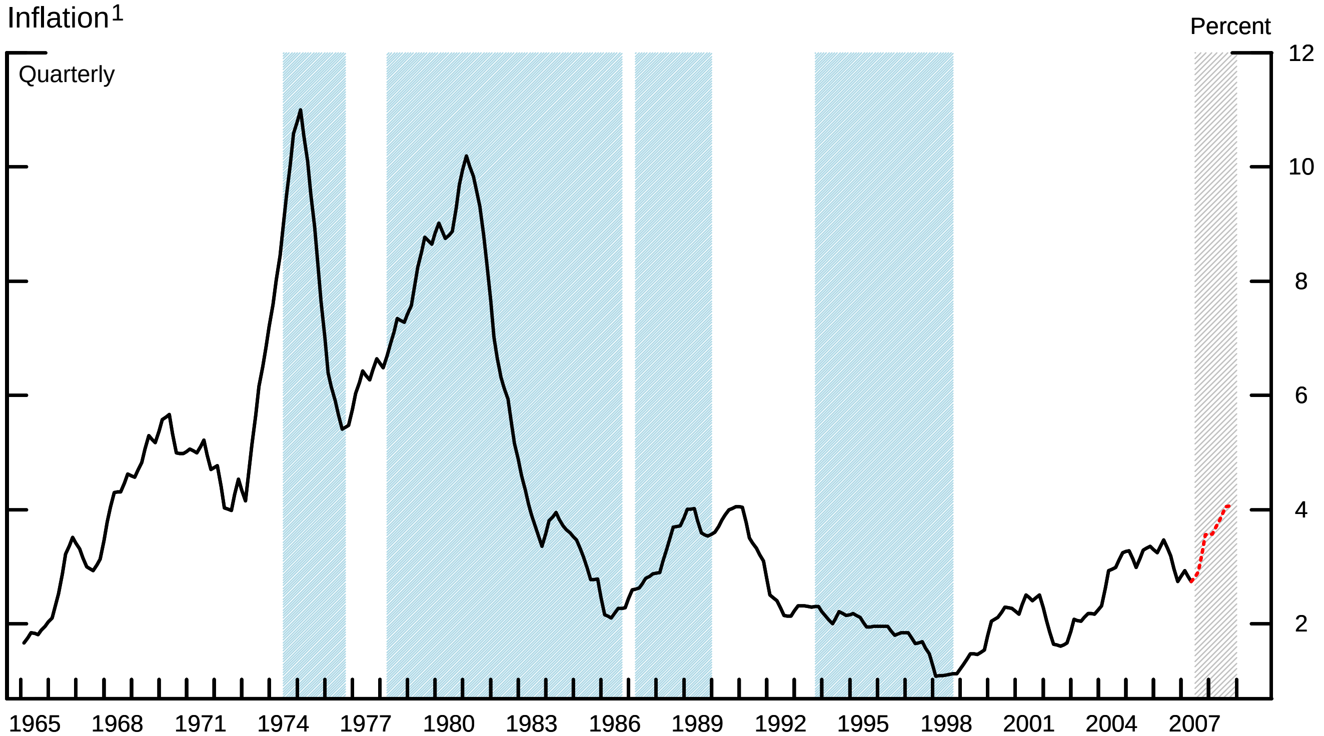
Appendix C Chart 8

Inflation Indicator Based on M2

Price Level



Inflation[1]



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.