Prefatory Note

The attached document represents the most complete and accurate version available based on original copies culled from the files of the FOMC Secretariat at the Board of Governors of the Federal Reserve System. This electronic document was created through a comprehensive digitization process which included identifying the best-preserved paper copies, scanning those copies,[1] and then making the scanned versions text-searchable.[2] Though a stringent quality assurance process was employed, some imperfections may remain.

Please note that this document may contain occasional gaps in the text. These gaps are the result of a redaction process that removed information obtained on a confidential basis. All redacted passages are exempt from disclosure under applicable provisions of the Freedom of Information Act.

[1] In some cases, original copies needed to be photocopied before being scanned into electronic format. All scanned images were deskewed (to remove the effects of printer- and scanner-introduced tilting) and lightly cleaned (to remove dark spots caused by staple holes, hole punches, and other blemishes caused after initial printing).

[2] A two-step process was used. An advanced optimal character recognition computer program (OCR) first created electronic text from the document image. Where the OCR results were inconclusive, staff checked and corrected the text as necessary. Please note that the numbers and text in charts and tables were not reliably recognized by the OCR process and were not checked or corrected by staff.

STRICTLY CONFIDENTIAL (FR) CLASS II FOMC

DECEMBER 5, 2002

MONETARY POLICY ALTERNATIVES

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

Strictly Confidential (F.R.) **December 5, 2002**
Class II – FOMC

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) Market participants had expected that the FOMC would cut its target for the federal funds rate 25 basis points at the November meeting and retain a balance of risks toward weakness, and then ease policy again early next year. Consequently, they were caught off guard by the immediate 50 basis point cut and the shift to an assessment of balanced risks. Treasury coupon yields initially fell following the announcement but rebounded later that afternoon, as investors focused on the shift to balance and lowered the odds on pronounced economic weakness, in part reflecting the policy action. Over most of the intermeeting period, incoming economic data and earnings news further reassured market participants about the outlook. In recent days, however, markets absorbed more mixed economic reports and downbeat information on prospects in the tech sector. Still, interest-rate futures suggest that investors continue to expect monetary policy tightening to commence next year and, indeed, now anticipate a higher path for the federal funds rate after midyear than they did before the last meeting (chart 1). Options on those futures indicate less near-term uncertainty about the path for rates and, in particular, little likelihood of outcomes requiring very low funds rates next spring (see the box on page 2). Futures quotes and survey results suggest that market participants put slim odds on a policy easing at the December meeting.[1]

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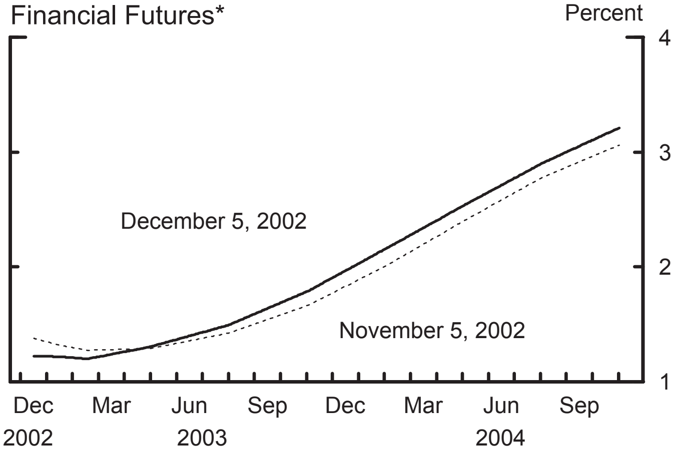
[1] The federal funds rate averaged close to 1-1/4 percent over the intermeeting period. To counteract reserve drains from the year-end increase in currency, the Desk expanded outstanding long-term RPs from $6 billion to $18 billion. The Desk also purchased $653 million of Treasury coupon issues in the market and $250 million of Treasury bills from foreign central banks.

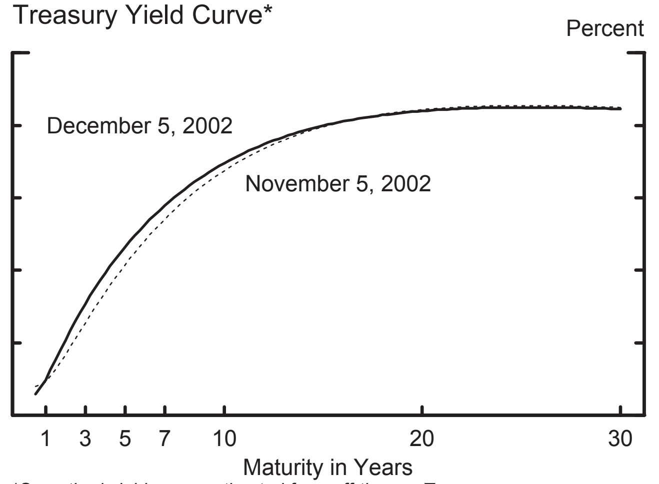
Chart 1
Financial Market Indicators

Expected Federal Funds Rates Estimated from Financial Futures*



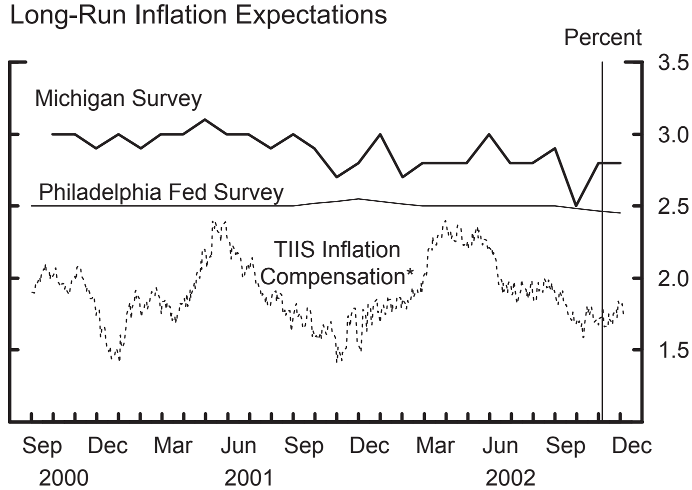
*Estimates from federal funds and eurodollar futures rates with an allowance for term premia and other adjustments.

Treasury Yield Curve*



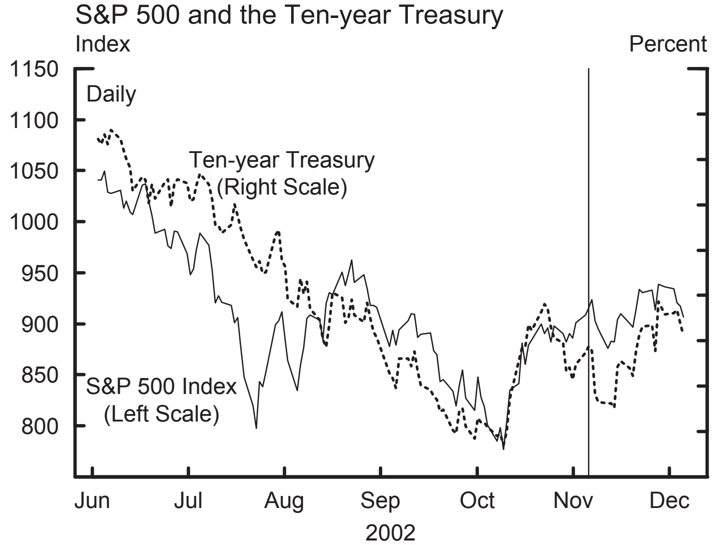
*Smoothed yield curve estimated from off-the-run Treasury coupon securities. Yields shown are those on notional par Treasury securities with semi-annual coupons.

Long-Run Inflation Expectations

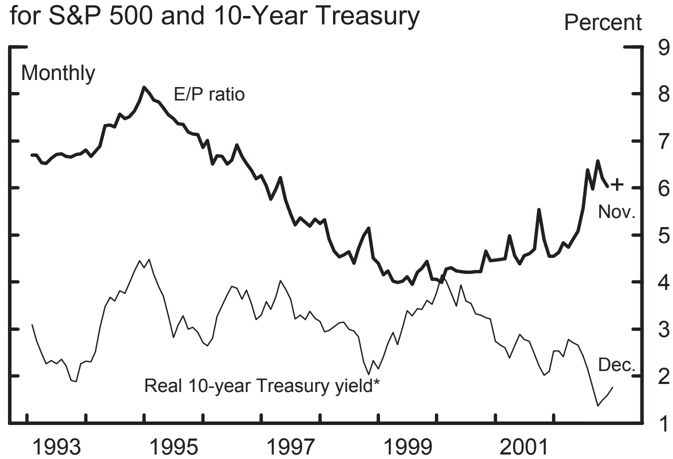


*The inflation rate that equalizes the price of the January 2012 TIIS and the value of a portfolio of nominal securities with the same payments.

S&P 500 and the Ten-year Treasury

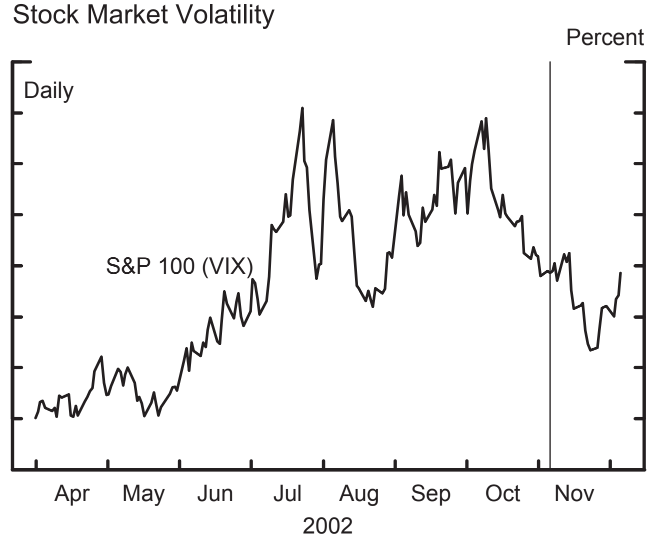


12-Month Forward Earnings-Price Ratio for S&P 500 and 10-Year Treasury



* 10-year Treasury yield minus Philadelphia Fed 10-year expected inflation.
\+ Denotes the latest observation using daily prices and latest earnings data from I/B/E/S.

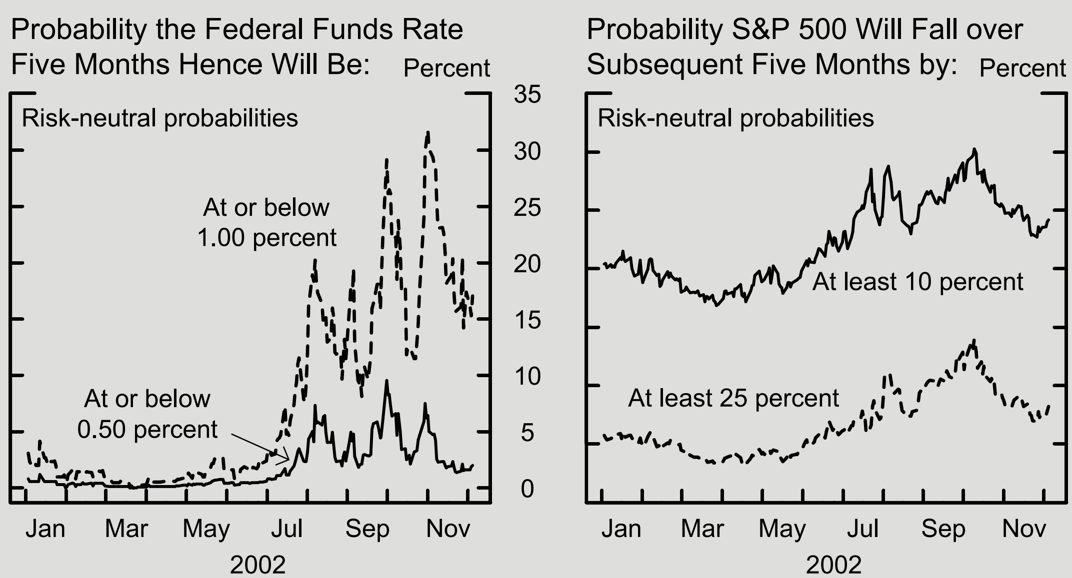
Stock Market Volatility



Note: Solid vertical lines indicate November 5.

Market-based Estimates
of the
Likelihood of Approaching the Zero Bound

The FOMC's decision to lower the target rate to 1-1/4 percent at its November meeting and the prevailing conditions of low inflation and sluggish global economic growth have spurred discussion in the press and in markets about the possibility that U.S. monetary policy could be constrained by the zero bound on nominal interest rates. Most recently, however, investors apparently have put low odds on such an outcome. The dashed and solid lines in the left-hand panel below depict the estimated probabilities embedded in the prices of options on interest-rate futures that the target funds rate will move to or below 100 basis points and 50 basis points, respectively, over the next five months. Those probabilities rose in early October amid the downdraft in equity prices and jumped again late that month following news reports suggesting that the FOMC was preparing to ease policy at its November meeting. Since then, however, the probability of a rate at or below 50 basis points has fallen to quite low levels as investors' fears about downside risks for the economy seem to have diminished. Such reduced concerns also seem to be evident in equity index options. As noted in the bottom right panel, the probability that investors attach to a significant drop in equity prices has fallen over the past two months but remains elevated.

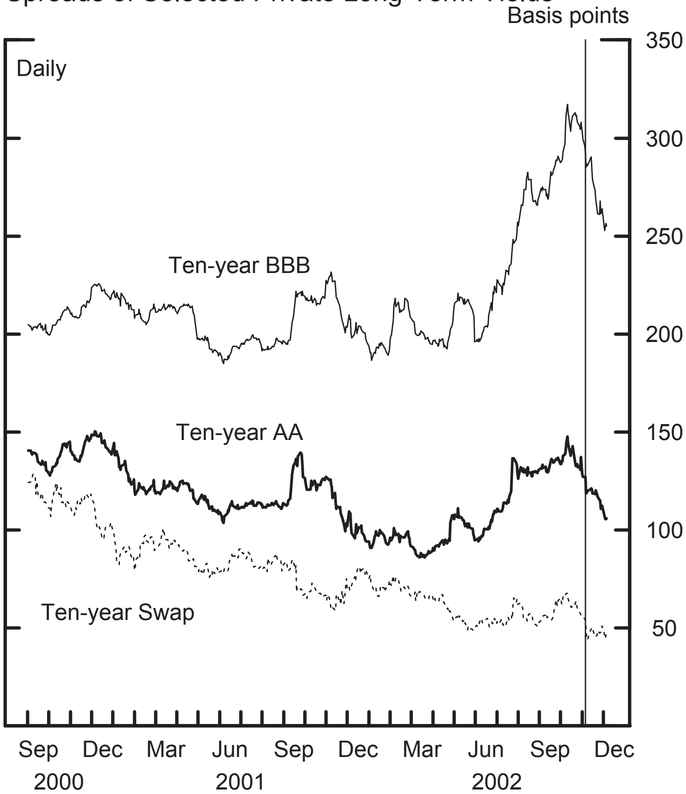


(2) Reflecting the upward shift in the expected path for the target federal funds rate after the middle of next year, yields on two-year Treasury notes climbed about 15 basis points over the intermeeting period. Yields on ten-year nominal and inflation-indexed Treasuries both were about unchanged on balance, suggesting that long-term inflation expectations were stable. The improved outlook for the economy and earnings initially buoyed stock prices, but equity markets sold off over the past few days in response to the mixed readings on the economy and signs of a less buoyant path for earnings than previously expected. On balance, broad stock price indexes edged down ½ to 1 percent, while the Nasdaq was up about ½ percent, implying that earnings-price ratios remained fairly high relative to real interest rates. Expected stock market volatility implied by options prices was about unchanged on net. Spreads of yields on investment-grade issues over Treasuries declined 10 to 40 basis points, while those on speculative-grade bonds dropped more than 100 basis points (chart 2). Nonetheless, credit spreads stayed wide, probably reflecting concerns that default rates could remain high and recovery rates low for some time. Overall market conditions generally improved in the weeks prior to the November FOMC meeting and have improved somewhat further over the intermeeting period, helping to keep year-end pressures subdued thus far (see the box on page 4).

(3) The dollar's value against major foreign currencies strengthened about 3/4 percent on a trade-weighted basis over the intermeeting period. In the euro area, signs of increasing economic weakness prompted the European Central Bank to lower policy rates 50 basis points today, somewhat more than had been built into market prices. For the period as a whole, yields on long-term government debt in the Euro area fell 10 to 15 basis points, stock price indexes declined a little, and the euro's value against the dollar was about unchanged. Financial markets in Japan fluctuated mainly in response to speculation about fiscal policy measures and banking sector reforms.

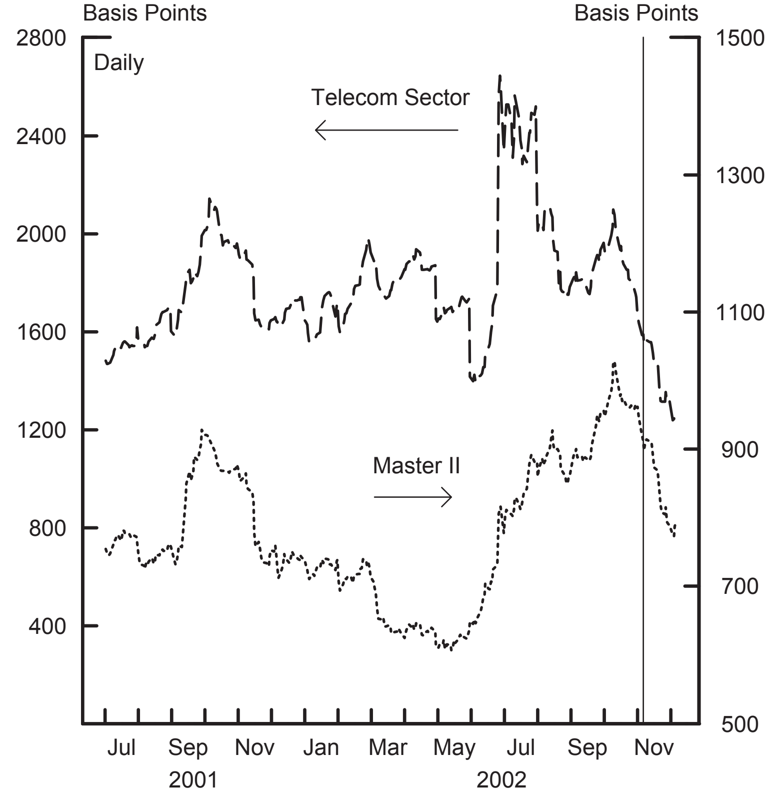
Chart 2
Financial Market Indicators

Spreads of Selected Private Long-Term Yields



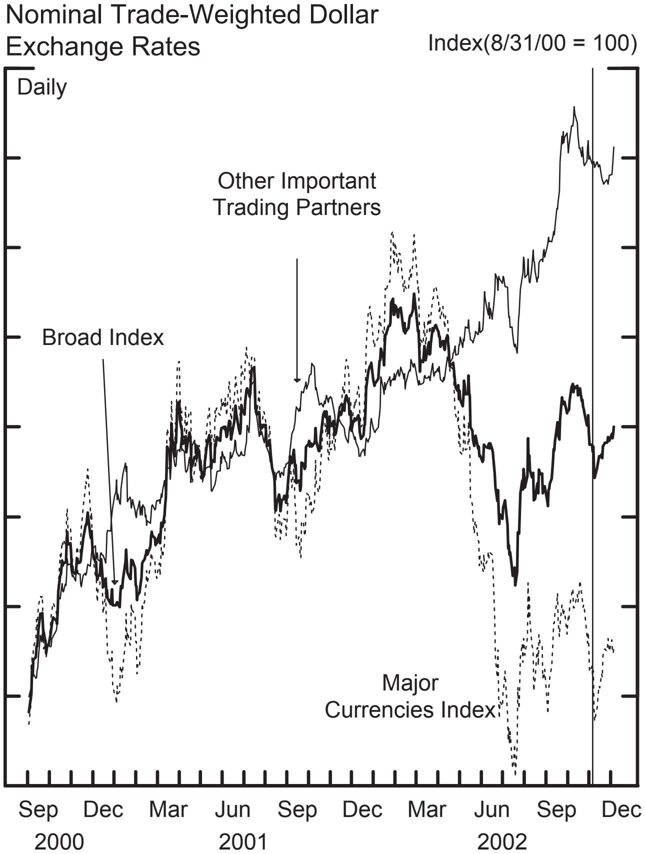
Note. Spreads measured over ten-year Treasury.

High-Yield Debt Spreads

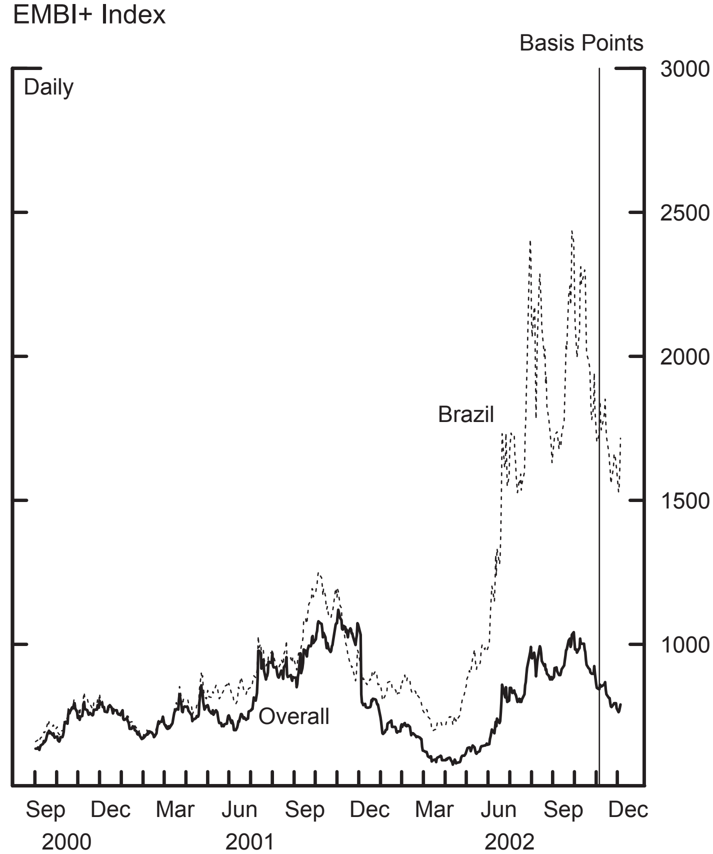


Note: Spreads measured over ten-year Treasury. Source: Merrill Lynch.

Nominal Trade-Weighted Dollar Exchange Rates



EMBI+ Index



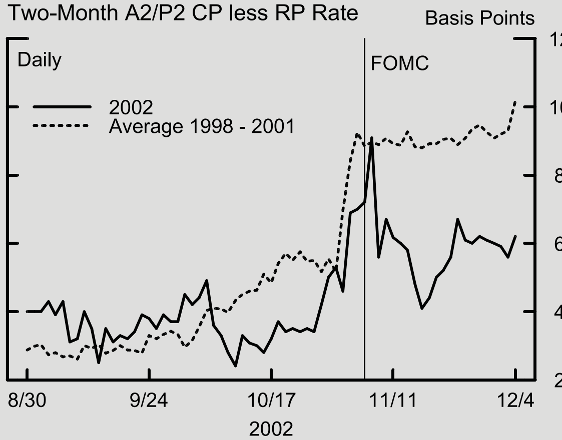
Note: Solid vertical lines indicate November 05.

Year-end Pressures and Credit Market Conditions

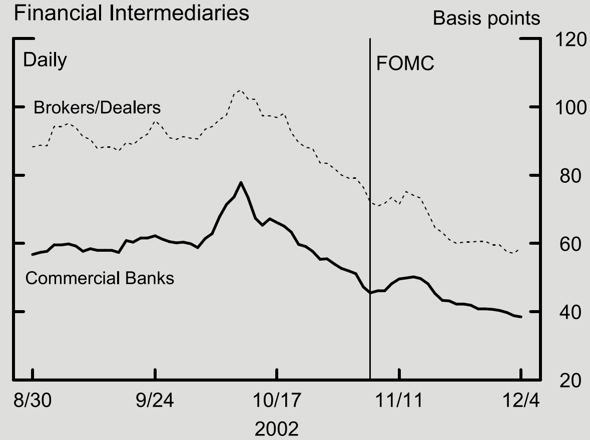
As shown in the bottom-left panel, term funding pressures over year-end in the commercial paper market have been rather muted to date. The sharp contraction over the past year in paper outstanding and the exit of riskier credits from the market have reportedly damped year-end premiums. In the interbank market, many institutions are experiencing strong core deposit growth and thus may feel little pressure to secure term funding over the turn of the year. Moreover, futures market quotes suggest that market participants anticipate that the System will again be quite generous in the provision of reserves at year-end, with the implied funds rate expected at year-end at least 50 basis points below the target.

The recent improvement in credit market conditions more broadly has probably also been a factor tending to damp year-end pressures by reducing concerns that intermediation could be impaired and that lower-rated borrowers might not be able to obtain funding over the turn. Spreads on credit default swaps of major intermediaries (shown at the right) and on the subordinated debt of large banks have continued to shrink over the period. Anecdotal information collected by the Desk suggests that liquidity conditions are about normal in the Treasury market and have improved considerably in the investment-grade corporate bond market. Liquidity in the junk bond market reportedly remains sub-par, but some market participants have noted an improved tone of late accompanying the sizable inflows to junk bond mutual funds.

Two-Month A2/P2 CP less RP Rate



Credit Default Swap Spreads for Selected Financial Intermediaries



The announcement of reforms in late November omitted some key details, but market participants judged that the full plan will be inadequate to the task. After the announcement, bank stock prices staged a modest recovery but finished well down on the period. Broad indexes of Japanese share prices were off only slightly. The Bank of Japan indicated that it now would aim at the upper end of its target range for reserve balances and began to implement its previously announced plan to purchase equities from banks. On net, the dollar gained about 2-1/2 percent versus the yen, with a sizable move late in the period following comments by Japanese officials that seemed to favor yen weakness. Against an index of the currencies of our other important trading partners, the dollar moved up a touch over the period. Early in the period, pro-market statements by associates of the Brazilian president-elect contributed to a substantial narrowing of that country's EMBI+ spread, but that move was retraced partially as markets became jittery about the staffing of key economic posts; although stocks rose about 6 percent, the *real* declined 5-1/2 percent against the dollar.[2]

(4) With the U.S. corporate bond market more receptive, gross bond issuance by nonfinancial firms in November recovered to the fastest pace since June. In markets for shorter-term business credit, both commercial paper and bank loans were about unchanged last month after sharp declines over most of the year. The sum of outstanding bonds, paper, and business loans appears to be increasing this quarter after the first quarterly declines ever recorded for this series in the previous two quarters. Investor appetite for riskier corporate securities apparently has increased, with both equity and junk bond mutual funds experiencing inflows in

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[2] . The Desk did not intervene for the accounts of the System or the Treasury.

November following outflows in several recent months. In the household sector, indexes of mortgage applications suggest that households have continued to take on mortgage debt at a rapid clip. Growth in consumer credit slowed further in October from its modest third-quarter pace, likely held down by paydowns of consumer debt with the proceeds of cash-out mortgage refinancing.

(5) M2 posted an 8-3/4 percent annual growth rate in November following a 10-1/4 percent increase in October, with the advance again concentrated in liquid deposits. The demand for liquid assets continued to be lifted by the low level of their opportunity costs and heavy mortgage refinancing. Over the four quarters of 2002, M2 is estimated to have expanded about 7 percent after rising 10-1/4 percent in 2001. Growth in M2 has again outstripped that of nominal GDP, which is expected to expand 4-1/4 percent, but by less than in 2001. Domestic nonfinancial sector debt likely will rise 6-3/4 percent in 2002, a bit faster than in 2001, but its nonfederal component is expected to decelerate about a percentage point to 6-1/2 percent. The appendix contains a more detailed discussion of developments in money and credit over the year.

Policy Alternatives

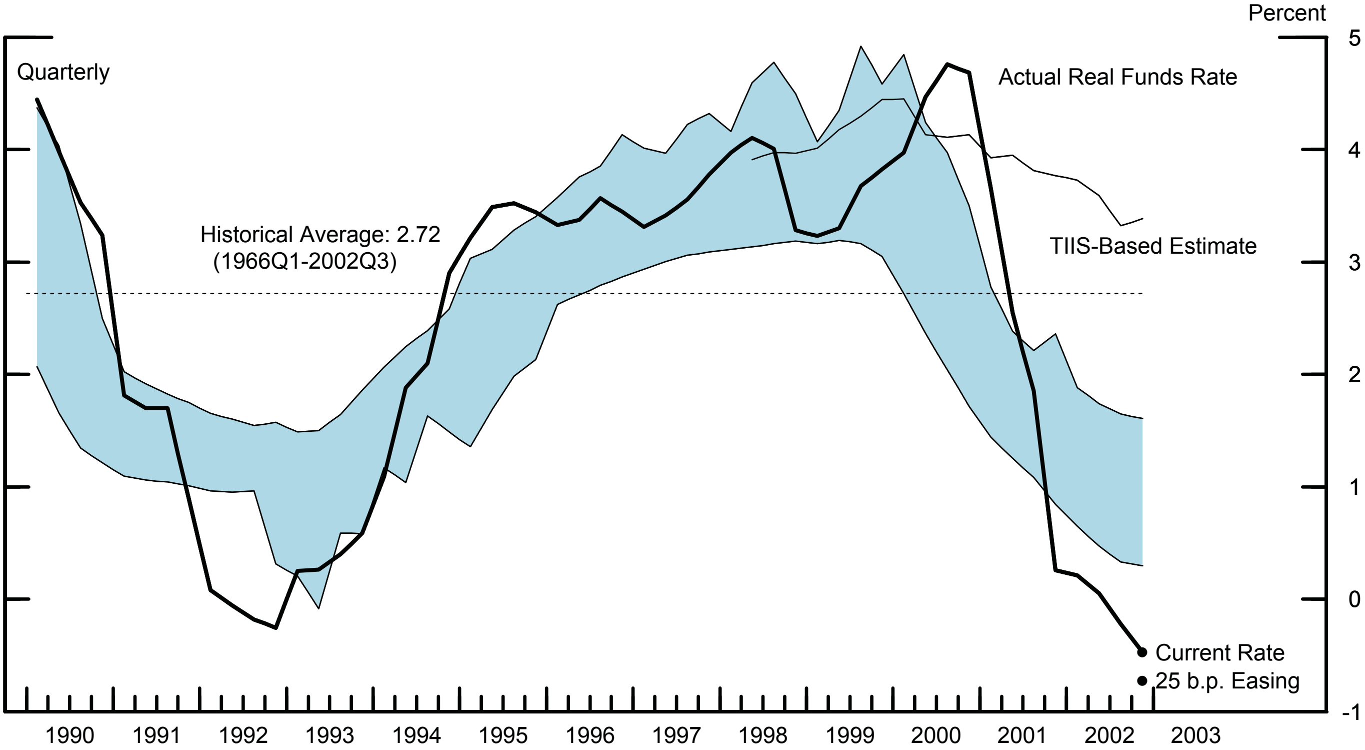
(6) The FOMC's decision to ease monetary policy at the November meeting, some improvement in financial market conditions on balance, and an assessment that fiscal policy could be somewhat more expansionary have led the staff to boost its projection of economic activity over the next two years. The assumed funds rate target is now 50 basis points lower than in the previous projection and remains at that level until mid-2004, when the FOMC begins tightening. Treasury bond and mortgage rates are roughly flat over the forecast period, while investment-grade corporate yields move down considerably as risk premiums fall further in an environment of strengthening growth. Equity prices rise at about the same pace as in the last Greenbook, but from an upwardly revised base. The exchange value of the dollar, as before, is seen as edging down in this forecast. Real GDP growth, projected at 3-1/4 percent next year and 4-1/4 percent in 2004, is up a little more than 1/4 percentage point from the last Greenbook. The forecast for unemployment has been revised down correspondingly, with the rate now seen as declining from a high of 6 percent in the first three quarters of next year to just below 5-1/2 percent by the end of the forecast period, still above the staff's estimate of the NAIRU. As a consequence of the lessened slack in resource use, prices are predicted to decelerate a shade less than in the previous projection, with core PCE inflation expected to drift down to a 1-1/4 percent rate in 2004.

(7) Should the Committee share the staff's assessment of the underlying forces shaping the economy and be of the view that the monetary stimulus in the pipeline is adequate to support satisfactory economic growth with low inflation, it may want to **stand pat** at this meeting on both the funds rate target and the risk assessment. Standard relationships suggest that, given the lags in the effects of monetary policy, last year's easings are still supporting growth in aggregate demand,

and November's action, which moved the real federal funds rate more distinctly into negative territory, created a larger gap below the band of estimated equilibrium real rates (chart 3). In view of the stimulus that is already in place, the Committee may wish to await the arrival of more information, possibly including the economic implications of any military conflict, before adjusting its policy stance. The Committee may believe that, given the current stance of policy, the low odds but high costs of marked further disinflation (or even outright deflation) and the economic weakness that presumably would attend such a development roughly balance the arguably higher odds but lower costs of increased inflation and an unsustainable pace of growth. Thus, the Committee may believe that retaining the current degree of policy accommodation would be consistent with an assessment of balanced risks.

(8) If the Committee sees a need for additional insurance against excessive disinflation and economic weakness, it may want to implement a further **25 basis point reduction** in its funds rate target at this meeting while maintaining an assessment of balanced risks. The available evidence suggests only a small increase in real GDP this quarter, and the recovery in GDP growth from the current "soft spot" is still largely a forecast, so that a much weaker outcome cannot be ruled out. Some combination of anemic real growth and a more favorable inflation-output tradeoff could cause the inflation rate over the next couple of years to run noticeably below the staff projection, potentially constraining the Committee's ability to lower real interest rates if the need were to arise. Even abstracting from uncertainties, the Committee might concur with the Greenbook's revised projections for output and resource use under the policy assumption of that forecast but still regard them to be unacceptably weak and to warrant further stimulus, as in the policymaker perfect foresight simulations portrayed in chart 4. Should the further policy easing eventually prove to have been unnecessary, the likely persistence of some economic slack for at least the

Chart 3
Actual Real Federal Funds Rate and Range of Estimated Equilibrium Real Rates



Note: The shaded range represents the maximum and the minimum values each quarter of six estimates of the equilibrium real federal funds rate based on a statistical filter and the FRB/US model. Real federal funds rates employ four-quarter lagged core PCE inflation as a proxy for inflation expectations, with the staff projection used for 2002Q4.

Equilibrium Real Funds Rate Estimates (Percent)

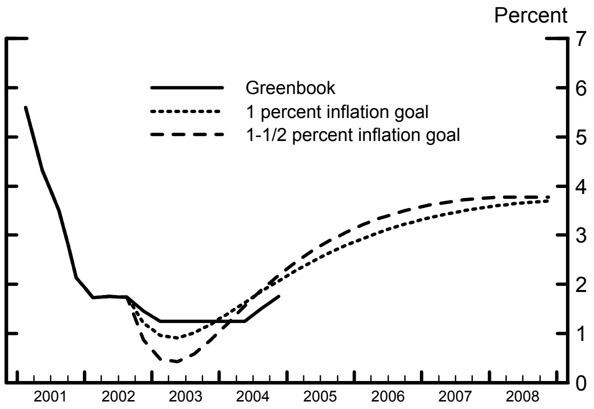
	2001	2002H1	2002Q3	2002Q4
Statistical Filter				
- Two-sided:				
• Based on historical data*	1.2	0.6	0.4	0.4
November Bluebook	*1.5*	*1.0*	*0.9*	--
• Based on historical data and the staff forecast	1.2	0.6	0.3	0.3
November Bluebook	*1.2*	*0.6*	*0.4*	*0.3*
- One-sided:				
• Based on historical data*	2.4	1.6	0.8	0.4
November Bluebook	*2.5*	*1.7*	*0.9*	--
FRB/US Model				
- Two-sided:				
• Based on historical data**	1.9	1.2	0.9	0.7
November Bluebook	*1.9*	*1.2*	*0.9*	--
• Based on historical data and the staff forecast	2.2	1.8	1.6	1.6
November Bluebook	*2.4*	*2.0*	*1.8*	*1.8*
- One-sided:				
• Based on historical data**	2.3	1.4	0.8	0.6
November Bluebook	*2.3*	*1.4*	*0.9*	--
Treasury Inflation-Indexed Securities	3.9	3.7	3.3	3.4
November Bluebook	*3.9*	*3.7*	*3.3*	*3.4*

* Also employs the staff projection for the current and next quarters.

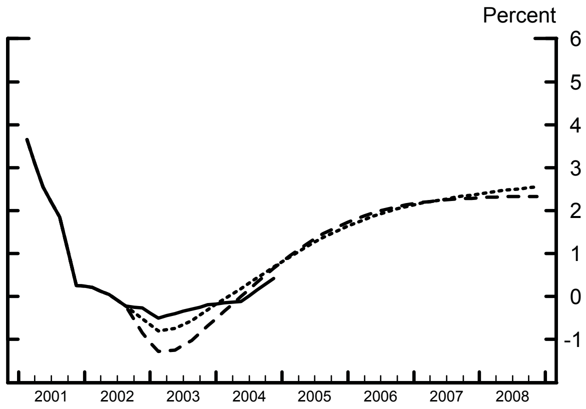
** Also employs the staff projection for the current quarter.

Chart 4
Policymaker Perfect Foresight Strategy for Monetary Policy

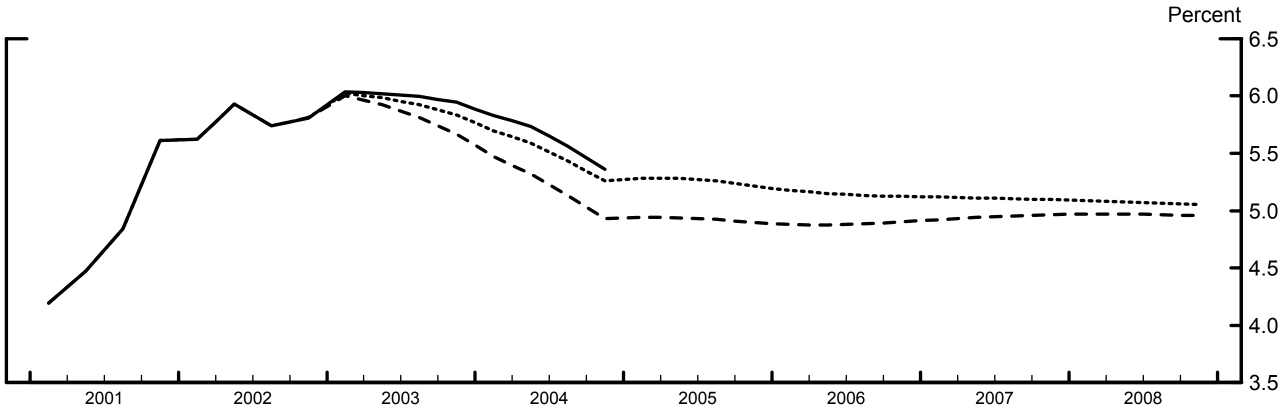
Nominal Federal Funds Rate



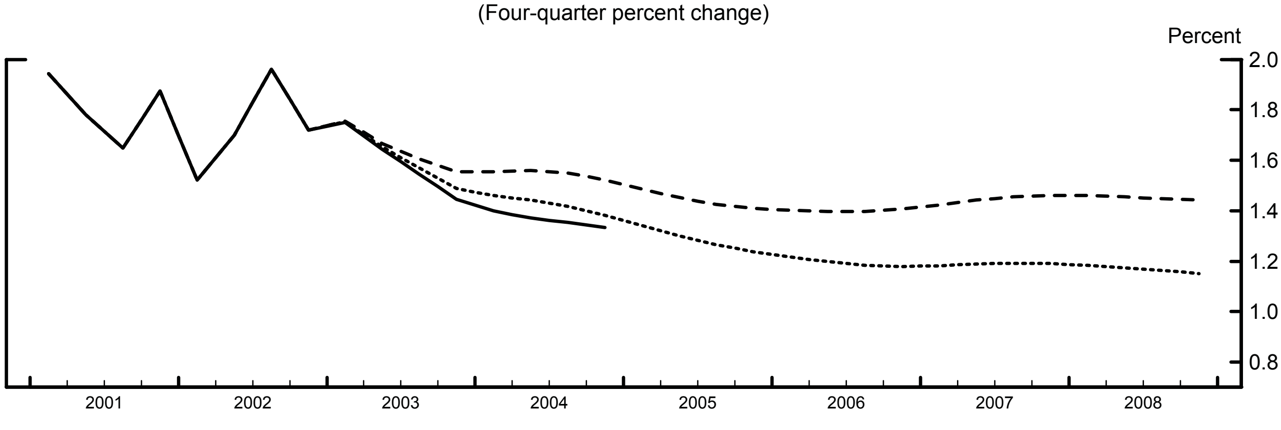
Real Federal Funds Rate[1]



Civilian Unemployment Rate



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



The perfect foresight simulations extend the key assumptions of the staff outlook (other than the path for monetary policy) through 2008:
- potential output grows at about 3-1/2 percent per year
- the relative price of oil stabilizes at its end of 2004 level
- the exchange value of dollar measured in real terms falls at a 3 percent clip
- federal budget deficit relative to GDP declines gradually

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

next several quarters suggests that the move could probably be reversed before any damage was done to the Committee's longer-run inflation objectives.

(9) Given that market participants see little chance of a shift in either the funds rate target or the assessment of risks at this meeting, a choice that matches this expectation should not have any appreciable effect on market prices. An easing of 25 basis points, however, would surprise investors, and the resulting fall in short-term interest rates could carry over in part to bond yields. Stock prices could rise as prospective earnings are discounted at lower interest rates and, perhaps, as investors revise up their outlook for earnings. The value of the dollar might move lower in line with the reduction in fixed-income yields. However, if equity markets rally strongly, these effects on bond yields and the dollar could well be reversed.

(10) Under the Greenbook forecast and its assumption of an unchanged policy stance though mid-2004, the projected growth of M2 from November through March, at 7 percent, would be a bit slower than in recent months. An ebbing of mortgage refinancing and renewed attractiveness of investment in the stock market should damp the expansion of liquid accounts. Reduced home mortgage growth is projected to cause a falloff in overall borrowing by households in coming months. Consumer credit growth should remain moderate, as the effects of a slowdown in spending on durables are roughly offset by smaller paydowns of consumer loans from cash-out mortgage refinancing. For businesses, the staff anticipates a small upturn in borrowing, reflecting a wider gap between capital spending and internal funds and some revival of merger activity. Corporate bond issuance, in particular, is likely to show some vigor, as investors' risk aversion diminishes further, while bank loans and commercial paper stay about flat. Nonfederal debt is projected to expand at a 6 percent rate in the first quarter, down a little from this year's pace. With federal debt growth likely to remain near this year's rate, overall domestic nonfinancial sector debt

growth is projected to edge down 1/2 percentage point from this year's pace to 6-1/4 percent in the first quarter.

M2 Growth Under Alternative Policy Actions

		No change*	Ease 25 bp
Monthly Growth Rates			
	Oct-02	10.2	10.2
	Nov-02	8.8	8.8
	Dec-02	7.8	8.0
	Jan-03	7.5	8.1
	Feb-03	7.0	7.8
	Mar-03	6.0	6.8
Quarterly Growth Rates			
	2002 Q1	5.4	5.4
	2002 Q2	3.3	3.3
	2002 Q3	10.3	10.3
	2002 Q4	8.5	8.5
	2003 Q1	7.5	8.0
Annual Growth Rates			
	2001	10.3	10.3
	2002	7.0	7.0
Growth From	To		
2001 Q4	Nov-02	7.1	7.1
Nov-02	Mar-03	7.1	7.7
2002 Q4	Mar-03	7.2	7.8

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

Directive and Balance-of-Risks Language

(11) Presented below for the members' consideration is draft wording for (1) the directive and (2) the balance-of-risks sentence.

(1) Directive Wording

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with MAINTAINING/INCREASING/ reducing the federal funds rate AT/to an average of around ___~~1-1/4~~ percent.

(2) Balance-of-Risks Sentence

Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks [ARE WEIGHTED MAINLY TOWARDS CONDITIONS THAT MAY GENERATE ECONOMIC WEAKNESS] [are balanced with respect to prospects for both goals] [ARE WEIGHTED MAINLY TOWARD CONDITIONS THAT MAY GENERATE HEIGHTENED INFLATION PRESSURES] in the foreseeable future.

Appendix
Review of Debt and Money Growth in 2002

Declines in long-term interest rates, which brought yields to forty-year lows, importantly shaped private credit flows this year. In the business sector, low interest rates on corporate bonds helped sustain a brisk pace of gross bond issuance through mid-year, although the proceeds were largely used to refinance existing debt. Subsequently, mixed readings on the strength of the economic expansion, reports of deficiencies in corporate governance, a worsening of corporate credit quality, and heightened geopolitical risks pushed risk spreads sharply higher and brought issuance to a virtual halt. For the year as a whole, overall business borrowing was quite weak, mainly owing to sagging capital expenditures, an evaporation of merger and acquisition activity, and an increased reliance on liquid assets that had been built up previously.

Household borrowing, by contrast, remained robust in 2002. Credit flows in the residential mortgage market picked up from an already brisk pace as borrowers took advantage of low mortgage interest rates, and as strong motor vehicle sales boosted the expansion of consumer credit. Against the backdrop of weak tax receipts and increased outlays, the federal government tapped markets in heavy volume for the first time in several years. Meanwhile, greater safe-haven demand for liquid assets that likely reflected investors' disenchantment with the stock market supported the broad monetary aggregates this year, although their expansion slowed, owing to the waning effects of the substantial monetary policy easing of 2001.

Domestic Nonfinancial Sector Debt

The aggregate debt of domestic nonfinancial sectors expanded 6¾ percent in 2002, a bit faster than in 2001. Spurred by weak tax receipts and an acceleration in spending, federal debt grew 7½ percent this year after contracting slightly in 2001. The growth of nonfederal debt, by contrast, slowed to a 6½ percent pace in 2002 from 7½ percent last year, owing for the most part to a sharp slowdown in business borrowing.

Anemic business borrowing this year was largely attributable to weak demand for credit, reflecting depressed capital expenditures and modest increases in internal funds, as well as the tendency of some firms to draw on liquid assets—which began the year at high levels—rather than to seek external financing. Over the first half of the year, gross issuance of corporate bonds by nonfinancial corporations moderated somewhat from the rapid clip set in 2001, but still remained brisk. Firms used the proceeds to refinance higher-cost long-term debt at more attractive interest rates and to strengthen their balance sheets by paying down short-term obligations such as bank loans and commercial paper. Issuance of bonds by higher-rated speculative-grade firms outside the beleaguered telecom and energy sectors also held up reasonably well in the first half.

Both investment-grade and high-yield corporate bond issuance, however, slowed dramatically in the second half of 2002, as investors' demand for corporate debt weakened because of concerns about the reliability of financial statements and the quality of corporate governance, deteriorating credit worthiness, and historically low recovery rates on defaulted bonds in some sectors. Worries about the possibility of additional earnings restatements diminished after the SEC's August 14 deadline for certification of financial statements passed without any significant new revelations of corporate chicanery. However, with a weaker tone of economic data and heightened geopolitical risks early in the fall, spreads of lower-tier investment-grade and high-yield issues over Treasuries climbed to their highest levels in more than a decade, evidently reflecting both greater expected losses and some pullback from risk-taking. Trading conditions in the corporate bond market also deteriorated somewhat during this period, with debt issued by auto manufacturers and their finance subsidiaries especially hard hit at times. As the fall progressed, however, more upbeat news about the economy sparked a rally in equity prices and renewed investors' appetite for corporate debt, pushing risk spreads sharply lower and leading to a rebound in bond issuance.

In the commercial paper market, companies perceived as having questionable accounting practices experienced significant investor resistance and most discontinued their programs, while others shifted to alternative forms of finance in an effort to strengthen their balance sheets. In addition, commercial banks reported that they tightened standards and terms on commercial paper backup lines of credit, citing heightened concerns about possible deterioration in the credit quality of issuers and a higher probability of lines being drawn upon because of potential strains in the commercial paper market. All told, nonfinancial commercial paper outstanding declined 39 percent in 2002, after dropping almost a third the previous year.

The runoff of business loans at commercial banks that started early last year intensified in 2002. Large banks reported a further weakening of demand for C&I loans over the course of the year, mainly owing to reduced outlays on capital equipment and inventories and moribund merger activity. These institutions attributed the striking decline in C&I loans not only to the reduced funding needs of creditworthy borrowers that found bond financing or a runoff of liquid assets more attractive, but also to a reduction in the pool of creditworthy borrowers that stemmed from a deterioration in asset quality and a tightening of banks' lending policies over the course of the year. A significant net percentage of banks pointed to the possibility of further revelations of accounting problems as a reason for tightening their lending policies during the first half of the year. However, the proportions of banks that tightened lending standards and terms on C&I loans declined noticeably in 2002.

After having surged late in 2001, growth in commercial mortgage debt dropped sharply during the first quarter of 2002, as nonresidential construction spending fell. Despite the continued contraction in outlays on nonresidential structures, commercial mortgage debt expanded briskly over the remainder of 2002, reflecting in part substitution for other corporate debt and supporting a robust issuance of commercial mortgage-backed securities. Although vacancy rates moved somewhat higher, delinquency rates on commercial mortgages remained at historically low levels, and banks firmed standards on commercial real estate loans in 2002, on net.

Expansion of overall household debt picked up in 2002 to the fastest pace since 1989. With mortgage rates at very low levels by historical standards, new purchases of homes and mortgage refinancing activity were elevated throughout the year, spurring a rapid 11½ percent advance in home mortgage debt. Reportedly, a significant number of households that refinanced home mortgages took the opportunity to extract equity to repay other debt as well as to finance home improvements and other expenditures. Still, consumer credit expanded at a 4¼ percent pace in 2002, supported in part by the automakers' cut-rate financing incentives and generous rebates. Hefty growth of overall household debt offset declines in the cost of debt, on net, to keep the household debt-service burden near its mid-1980s peak over the year.

Despite the elevated debt-service burden, household balance sheets stayed in relatively good repair. Although the rate of personal bankruptcy fillings has risen, on net, this year and delinquency rates remain high for subprime borrowers, broad measures of delinquencies on home mortgages and consumer loans have edged down. The ratio of household assets to disposable income fell this year, as steep losses in equity markets outweighed solid gains in house prices and disposable income rose. Households continued net purchases of equity mutual funds through the spring, despite the falling and volatile stock market. Further net declines in equity prices since then, however, led to enormous withdrawals from equity mutual funds, which evidently were partly redirected toward government bond funds.

State and local government debt accelerated this year from the already brisk pace of 2001. Strong issuance of long-term municipal debt for new capital projects and advance refunding was bolstered by an appreciable decline in yields on both revenue and general obligation bonds. Fiscal difficulties in many states meant that short-term issuance also was well maintained. Credit quality in the municipal sector worsened somewhat in the second half of 2002, with the ratio of long-term municipal bond yields to Treasury yields rising significantly late in the year, reflecting deteriorating fiscal positions and the heavy pace of municipal issuance.

After it resumed net borrowing in the second half of 2001, the Treasury continued to tap markets in volume this year. Federal debt grew at an 8½ percent pace in the first half of the year, fueled by a significant weakening of tax receipts owing to reduced tax rates and sluggish income growth, the paucity of taxable capital gains, as well as increased outlays for defense and homeland security. In the spring, the Treasury had to resort to emergency accounting devices to create financing room within the existing $5.95 trillion statutory debt limit, which the Congress raised to $6.4 trillion on June 27. Federal borrowing remained at a brisk 6½ percent pace over the second half of 2002.

Depository Credit

The expansion of depository credit moderated in 2002. Credit at thrift institutions decelerated somewhat from last year's pace, though the slowdown can be attributed for the most part to a large thrift institution's conversion to a bank charter. The growth of bank credit picked up significantly from the anemic pace in 2001, driven by a robust acquisition of securities, especially mortgage-backed securities, as well as a surge in home equity and residential real estate loans. Business loans at commercial banks, by contrast, continued to run off. The pricing of new business loans indicated that banks remain particularly concerned about lower-quality borrowers, consistent with the selectivity observed in the bond and syndicated loan markets. In lending to households, moderate net percentages of domestic banks also tightened credit conditions for credit card and other consumer loans in 2002. The proportion of domestic banks that tightened credit standards on residential mortgage loans rose late in the year to the highest share in the past decade, but nonetheless remained quite low.

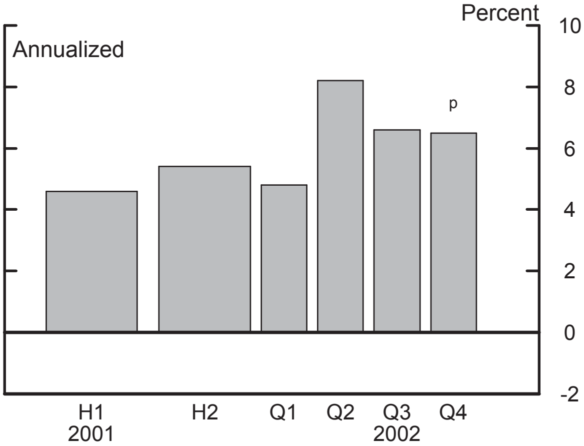
Commercial banks registered strong profit gains this year, reflecting robust fee income from mortgage and credit card lending, more stringent cost controls, as well as the relatively less expensive funding offered by inflows of core deposits. Loss provisioning and nonperforming loans increased overall, although banks generally remained very well capitalized.

Monetary Aggregates

M2 grew 7 percent this year, considerably below the 10¼ percent rate of increase in 2001. The growth of M2 dropped in the first half of 2002, owing to a sharp slowdown in its liquid components, as the opportunity cost of holding M2 leveled out, because deposit rates caught up with the earlier fall in market interest rates. M2 accelerated significantly in the second half, as households, apparently in response to falling and volatile equity prices, moved large sums from domestic equity mutual funds. M2 growth was also supported by another wave of mortgage refinancing activity, as mortgage interest rates fell to new lows. With the expansion of M2 continuing to outrun that of nominal income, M2 velocity declined for the fifth year in a row.

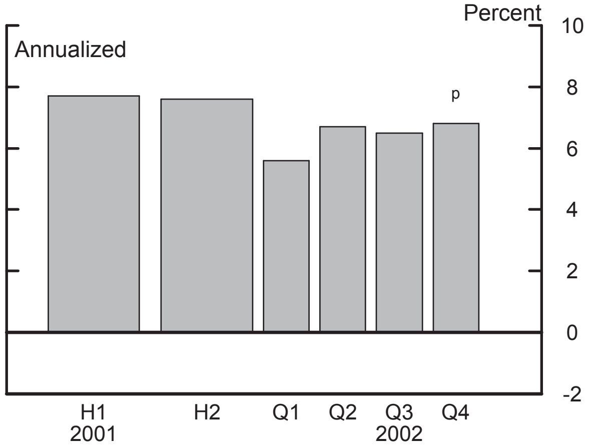
Chart A-1
Debt and Money Growth

Growth of Total Nonfinancial Debt



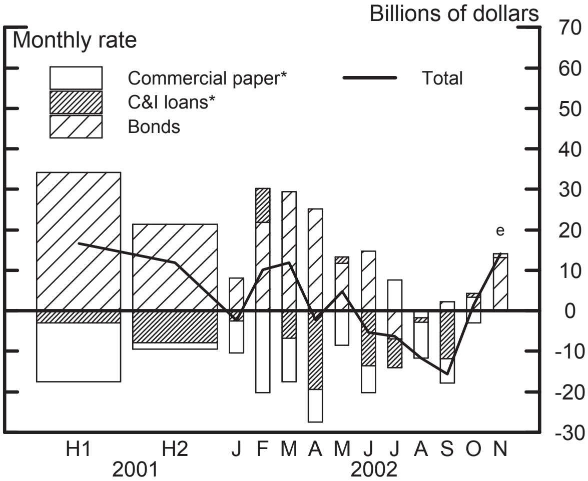
p Preliminary.

Growth of Nonfederal Debt



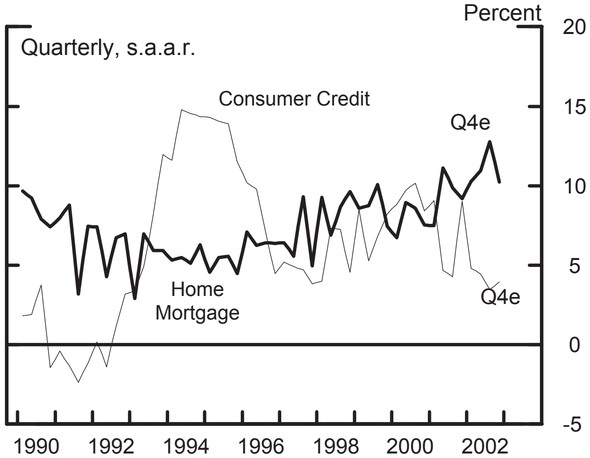
p Preliminary.

Growth of Components of Nonfinancial Business Debt



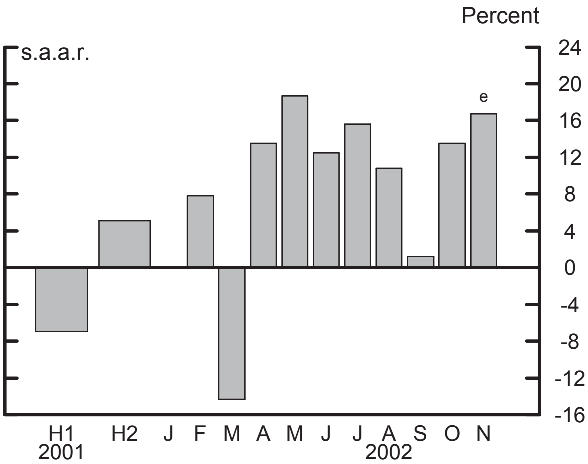
* Seasonally adjusted.
e Estimated.

Growth of Household Debt



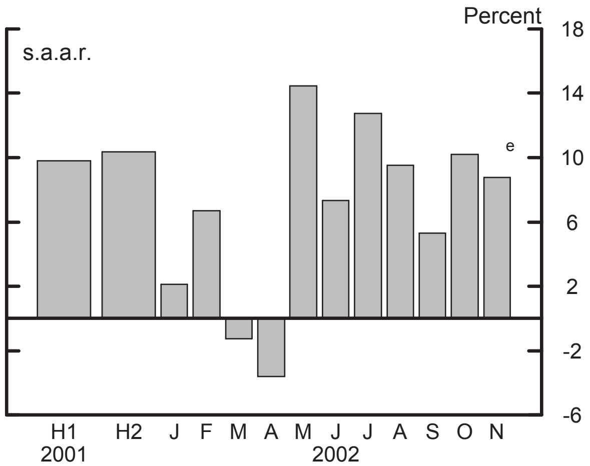
e Estimated.

Growth of Federal Debt



Note. Treasury debt held by the public, month end.
e Estimated.

Growth of M2



e Estimated.

MARA:DD

SELECTED INTEREST RATES
(percent)

	Short-term						Long-term									
	Federal funds	Treasury bills secondary market			CDs secondary market	Comm. paper	Off-the-run Treasury yields				Indexed yields		Moody's Baa	Municipal Bond Buyer	Conventional home mortgages primary market	
		4-week	3-month	6-month	3-month	1-month	2-year	5-year	10-year	30-year	5-year	10-year			Fixed-rate	ARM
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
01 -- High	5.99	3.66	5.51	5.30	5.96	6.12	4.91	5.11	5.68	5.99	3.59	3.61	8.20	5.65	7.24	6.86
-- Low	1.74	1.69	1.69	1.77	1.79	1.76	2.47	3.66	4.58	5.06	2.65	2.96	7.62	5.20	6.45	5.06
02 -- High	1.80	1.80	1.85	2.12	1.97	1.79	3.69	4.94	5.69	6.00	3.31	3.54	8.18	5.67	7.18	5.26
-- Low	1.23	1.22	1.22	1.27	1.34	1.28	1.77	2.79	4.01	4.91	1.27	2.17	7.37	5.02	5.94	4.09
Monthly																
Dec 01	1.82	1.71	1.72	1.82	1.83	1.84	3.12	4.52	5.40	5.77	3.28	3.54	8.05	5.56	7.07	5.23
Jan 02	1.73	1.67	1.68	1.77	1.74	1.70	3.03	4.45	5.32	5.71	3.14	3.45	7.87	5.48	7.00	5.18
Feb 02	1.74	1.74	1.76	1.86	1.82	1.76	3.01	4.36	5.24	5.62	2.91	3.32	7.89	5.43	6.89	5.03
Mar 02	1.73	1.79	1.82	2.05	1.91	1.78	3.52	4.80	5.60	5.93	2.94	3.36	8.11	5.61	7.01	5.06
Apr 02	1.75	1.72	1.75	1.97	1.87	1.76	3.40	4.69	5.49	5.87	2.64	3.16	8.03	5.59	6.99	4.96
May 02	1.75	1.74	1.76	1.91	1.82	1.75	3.24	4.54	5.40	5.82	2.50	3.10	8.09	5.54	6.81	4.79
Jun 02	1.75	1.71	1.73	1.83	1.81	1.74	2.97	4.24	5.16	5.71	2.46	3.08	7.95	5.44	6.65	4.65
Jul 02	1.73	1.72	1.71	1.74	1.79	1.74	2.52	3.86	4.90	5.60	2.23	2.92	7.90	5.34	6.49	4.51
Aug 02	1.74	1.68	1.65	1.64	1.73	1.72	2.12	3.37	4.54	5.27	1.80	2.51	7.58	5.30	6.29	4.38
Sep 02	1.75	1.67	1.66	1.64	1.76	1.73	1.98	3.01	4.16	4.97	1.45	2.25	7.40	5.10	6.09	4.29
Oct 02	1.75	1.62	1.61	1.59	1.73	1.72	1.92	3.02	4.25	5.13	1.52	2.40	7.73	5.16	6.11	4.27
Nov 02	1.34	1.26	1.25	1.30	1.39	1.34	1.94	3.13	4.33	5.16	1.63	2.44	7.62	5.25	6.07	4.16
Weekly																
Oct 4 02	1.78	1.60	1.58	1.53	1.72	1.73	1.77	2.80	4.03	4.92	1.27	2.18	7.44	5.03	6.01	4.29
Oct 11 02	1.73	1.60	1.59	1.56	1.72	1.72	1.78	2.79	4.01	4.94	1.31	2.23	7.57	5.02	5.98	4.23
Oct 18 02	1.75	1.65	1.67	1.68	1.78	1.72	2.10	3.21	4.42	5.23	1.66	2.52	7.86	5.23	6.15	4.27
Oct 25 02	1.75	1.67	1.67	1.68	1.78	1.73	2.14	3.29	4.50	5.34	1.79	2.60	7.95	5.33	6.31	4.30
Nov 1 02	1.78	1.53	1.50	1.46	1.65	1.68	1.79	2.98	4.29	5.21	1.57	2.44	7.81	5.20	6.13	4.25
Nov 8 02	1.54	1.30	1.30	1.33	1.46	1.43	1.84	3.03	4.27	5.18	1.55	2.40	7.71	5.19	6.11	4.15
Nov 15 02	1.23	1.22	1.22	1.27	1.34	1.28	1.86	3.02	4.21	5.09	1.54	2.37	7.56	5.22	5.94	4.09
Nov 22 02	1.27	1.23	1.22	1.28	1.36	1.28	2.02	3.19	4.35	5.14	1.68	2.48	7.56	5.30	6.03	4.14
Nov 29 02	1.26	1.26	1.23	1.30	1.36	1.30	2.10	3.32	4.48	5.23	1.78	2.53	7.60	5.28	6.13	4.19
Dec 6 02	--	1.24	1.23	1.31	1.36	1.29	2.05	3.34	4.49	5.23	1.82	2.53	--	--	6.19	4.21
Daily																
Nov 19 02	1.20	1.23	1.21	1.28	1.36	1.28	1.93	3.08	4.25	5.06	1.61	2.42	7.49	--	--	--
Nov 20 02	1.23	1.22	1.22	1.28	1.35	1.27	2.02	3.20	4.36	5.14	1.68	2.46	7.56	--	--	--
Nov 21 02	1.27	1.23	1.22	1.28	1.36	1.29	2.07	3.27	4.43	5.20	1.75	2.52	7.60	--	--	--
Nov 22 02	1.25	1.23	1.23	1.29	1.35	1.27	2.13	3.32	4.46	5.22	1.75	2.54	7.61	--	--	--
Nov 25 02	1.32	1.24	1.24	1.31	1.36	1.28	2.12	3.32	4.47	5.22	1.75	2.53	7.61	--	--	--
Nov 26 02	1.26	1.27	1.22	1.29	1.36	1.30	2.01	3.20	4.36	5.14	1.72	2.48	7.53	--	--	--
Nov 27 02	1.27	1.28	1.23	1.31	1.37	1.31	2.17	3.40	4.57	5.30	1.83	2.56	7.65	--	--	--
Nov 28 02	1.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nov 29 02	1.23	1.25	1.22	1.30	1.36	1.30	2.09	3.35	4.52	5.25	1.83	2.55	7.60	--	--	--
Dec 2 02	1.27	1.26	1.24	1.32	1.36	1.31	2.10	3.38	4.52	5.25	1.84	2.55	7.59	--	--	--
Dec 3 02	1.24	1.23	1.23	1.32	1.37	1.28	2.10	3.39	4.54	5.27	1.85	2.56	7.59	--	--	--
Dec 4 02	1.23	1.23	1.22	1.30	1.35	1.27	2.04	3.32	4.48	5.23	1.81	2.52	7.56	--	--	--
Dec 5 02	-- p	1.23	1.22	1.28	1.35	--	1.99	3.26	4.42	5.18	1.77	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

Strictly Confidential (FR)-
Class II FOMC

December 9, 2002

Exhibit 1

Money Aggregates

Seasonally adjusted

Period	M1	M2	nontransactions components		M3
			In M2	In M3 only	
	1	2	3	4	5
Annual growth rates(%):					
Annually (Q4 to Q4)					
1999	1.9	6.3	7.8	11.2	7.7
2000	-1.7	6.1	8.6	17.4	9.3
2001	6.8	10.3	11.3	18.5	12.8
Quarterly(average)					
2001-Q4	2.1	9.5	11.5	18.3	12.2
2002-Q1	5.9	5.4	5.3	3.1	4.6
Q2	-0.6	3.3	4.4	2.8	3.1
Q3	2.4	10.3	12.4	3.5	8.1
Monthly					
2001-Nov.	2.9	10.4	12.5	20.7	13.7
Dec.	16.0	9.8	8.1	12.4	10.6
2002-Jan.	3.7	2.1	1.7	-8.3	-1.2
Feb.	1.9	6.7	8.0	3.6	5.7
Mar.	3.0	-1.3	-2.4	0.3	-0.8
Apr.	-11.2	-3.6	-1.5	1.6	-2.0
May	6.8	14.4	16.5	6.5	11.9
June	6.9	7.4	7.4	3.1	6.0
July	7.3	12.7	14.2	-1.8	8.1
Aug.	-14.2	9.5	16.0	11.3	10.1
Sep.	8.1	5.3	4.5	1.8	4.2
Oct.	8.5	10.2	10.7	-13.9	2.6
Nov. e	-3.8	8.8	12.1	43.1	19.4
Levels ($billions):					
Monthly					
2002-June	1190.2	5576.4	4386.1	2582.7	8159.1
July	1197.4	5635.5	4438.1	2578.9	8214.4
Aug.	1183.2	5680.2	4497.1	2603.2	8283.4
Sep.	1191.2	5705.3	4514.1	2607.1	8312.5
Oct.	1199.6	5753.8	4554.2	2576.9	8330.7
Weekly					
2002-Oct. 7	1174.9	5716.4	4541.4	2572.2	8288.6
14	1193.4	5746.0	4552.5	2569.0	8315.0
21	1197.9	5754.4	4556.5	2569.4	8323.8
28	1217.8	5777.0	4559.2	2583.2	8360.3
Nov. 4	1200.4	5777.0	4576.7	2591.1	8368.1
11	1191.2	5790.4	4599.2	2618.3	8408.8
18p	1195.8	5817.9	4622.1	2687.0	8504.9
25p	1202.7	5799.7	4597.1	2725.3	8525.1

p preliminary
e estimated

Changes in System Holdings of Securities [1]

(Millions of dollars, not seasonally adjusted)

Strictly Confidential

Class II FOMC

December 5, 2002

	Treasury Bills			Treasury Coupons						Federal Agency	Net change	Net RPs [5]		
	Net Purchases [2]	Redemptions (-)	Net Change	Net Purchases [3] < 1	Net Purchases [3] 1-5	Net Purchases [3] 5-10	Net Purchases [3] Over 10	Redemptions (-)	Net Change	Redemptions (-)	total outright holdings [4]	Short-Term [6]	Long-Term [7]	Net Change
1999	---	---	---	11,895	19,731	4,303	9,428	1,429	43,928	157	43,771	2,035	8,347	10,382
2000	8,676	24,522	-15,846	8,809	14,482	5,871	5,833	3,779	31,215	51	15,318	-2,163	7,133	4,970
2001	15,503	10,095	5,408	15,663	22,814	6,003	8,531	16,802	36,208	120	41,496	3,492	636	4,128
2001 QIII	3,965	1,543	2,422	1,619	5,854	1,691	1,535	5,723	4,976	---	7,398	3,832	2,587	6,419
QIV	4,659	---	4,659	5,761	2,577	982	1,632	473	10,479	---	15,138	-4,223	10,847	6,624
2002 QI	6,827	---	6,827	4,349	6,153	971	1,927	---	13,401	---	20,228	-1,961	-2,191	-4,152
QII	8,227	---	8,227	5,535	2,580	2,471	210	---	10,796	---	19,023	-2,644	-4,563	-7,207
QIII	6,117	---	6,117	2,835	3,676	1,318	143	---	7,972	---	14,089	-3,067	-5,225	-8,291
2002 Apr	1,047	---	1,047	2,709	1,142	1,670	210	---	5,730	---	6,777	1,211	-3,714	-2,503
May	3,524	---	3,524	2,826	1,439	259	---	---	4,524	---	8,048	-2,091	133	-1,958
Jun	3,656	---	3,656	---	---	542	---	---	542	---	4,198	79	-833	-754
Jul	4,838	---	4,838	1,104	1,755	577	63	---	3,499	---	8,336	-2,434	-1,296	-3,730
Aug	529	---	529	445	1,921	690	80	---	3,136	---	3,665	-527	-4,645	-5,172
Sep	750	---	750	1,286	---	51	---	---	1,337	---	2,087	1,084	-1,026	59
Oct	---	---	---	---	---	---	---	---	---	---	---	2,779	-4,716	-1,937
Nov	250	---	250	---	---	---	---	---	---	---	250	2,910	4,616	7,526
2002 Sep 11	236	---	236	---	---	---	---	---	---	---	236	-6,152	---	-6,152
Sep 18	205	---	205	1,286	---	51	---	---	1,337	---	1,542	77	-1,000	-923
Sep 25	200	---	200	---	---	---	---	---	---	---	200	-4,432	---	-4,432
Oct 2	---	---	---	---	---	---	---	---	---	---	---	6,518	-1,000	5,518
Oct 9	---	---	---	---	---	---	---	---	---	---	---	-3,476	-3,000	-6,476
Oct 16	---	---	---	---	---	---	---	---	---	---	---	6,620	-1,000	5,620
Oct 23	---	---	---	---	---	---	---	---	---	---	---	-3,764	---	-3,764
Oct 30	---	---	---	---	---	---	---	---	---	---	---	4,339	---	4,339
Nov 6	---	---	---	---	---	---	---	---	---	---	---	-2,085	---	-2,085
Nov 13	---	---	---	---	---	---	---	---	---	---	---	1,608	3,000	4,608
Nov 20	---	---	---	---	---	---	---	---	---	---	---	675	3,000	3,675
Nov 27	250	---	250	---	---	---	---	---	---	---	250	1,516	1,714	3,230
Dec 4	---	---	---	---	339	314	---	---	653	---	653	-1,408	4,286	2,878
2002 Dec 5	---	---	---	---	---	---	---	---	---	---	---	-1,916	---	-1,916
Intermeeting Period														
Nov 6-Dec 5	250	---	250	---	339	314	---	---	653	---	903	-4,852	12,000	7,148
Memo: LEVEL (bil. $)														
Dec 5			224.6	95.6	173.9	53.3	79.8		402.6	0.0	627.2	-20.4	18.0	-2.4

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 matched sale-purchases.
6. Original maturity of 15 days or less.
7. Original maturity of 16 to 90 days.

MRA:HRM