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

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[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 optical 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.

Content last modified 5/26/2009.

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) Over the intermeeting period, prices in financial markets were buffeted by shifting perceptions of global risks, including the situations in Iraq and North Korea and the disruptions to oil supplies in Venezuela.[1] U.S. economic releases were mostly mixed, although since the surprisingly strong ISM report in early January market participants have mostly been disappointed with incoming data. Adding to that discontent, the guidance many firms have been offering during the current corporate reporting season about earnings prospects and capital spending plans has been downbeat. That said, the absence of a major revelation of corporate wrongdoing seemed to lighten investors' concerns on that score. In addition, the unveiling of the Administration's economic stimulus package, which was larger than had been previously anticipated, created the sense that substantial additional fiscal impetus is in train. Market participants apparently are now betting that the fourth-quarter lull in economic activity will linger a bit longer than had previously been expected, at least as can be read from money market futures. These contracts suggest that the FOMC will stay on hold well into the third quarter and tighten by almost ½ percentage point less by mid-2004 than was expected at the time of the December meeting.

(2) Against this backdrop of revised policy expectations, Treasury note yields shed 10 to 20 basis points on net over the intermeeting period. The yield on the ten-year on-the-run indexed security fell about 1/4 percentage point, implying that inflation compensation ticked higher over the period. However, market

1. The FOMC's decision at its December meeting to leave the target federal funds rate at 1-1/4 percent and to maintain a neutral balance-of-risks assessment was widely anticipated and elicited little reaction in financial markets. The box on the next page discusses the implementation of monetary policy over the intermeeting period.

The Implementation of Monetary Policy over the Intermeeting Period

The Desk relied entirely on temporary operations to offset the factors affecting reserves over the intermeeting period. The trend increase in currency seems to have slowed some, making it unnecessary to purchase Treasury securities outright. Repurchase agreements were built up to accommodate the holiday increase in currency in circulation and then run down as currency flowed back to the Federal Reserve after year-end (table). In the event, the federal funds rate has averaged close to 1-1/4 percent since the December meeting and has mostly traded in a tight range around that level (chart). As a result, only a modest volume of credit was extended through the discount window. Since January 9, loans made outside the seasonal lending program have been charged a penalty rate under our new lending facilities. The daily quantity of primary credit outstanding averaged about $9 million. A total of thirty-one, predominantly small, institutions have borrowed, including twenty-five commercial banks, five thrifts, and one credit union. No secondary credit loans were extended.

Reserve Effects of Changes in Autonomous Factors and Open Market Operations

	12/13/02-12/31/02	12/31/02-1/22/03
Autonomous Factors		
Currency	-13.4	11.0
Other	3.0	6.9
Open Market Operations		
Short Term RPs	6.3	8.3
Long Term RPs	6.0	-11.0
Outright	0.0	0.0
Memo:		
Changes in DI Balances	1.9	15.1

Federal Funds Rate

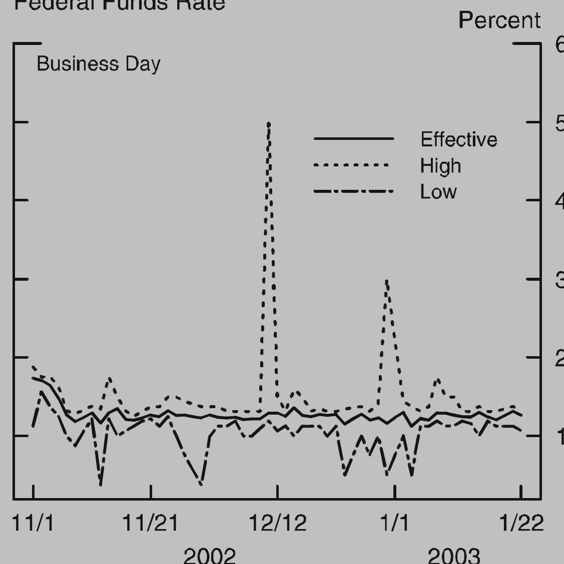
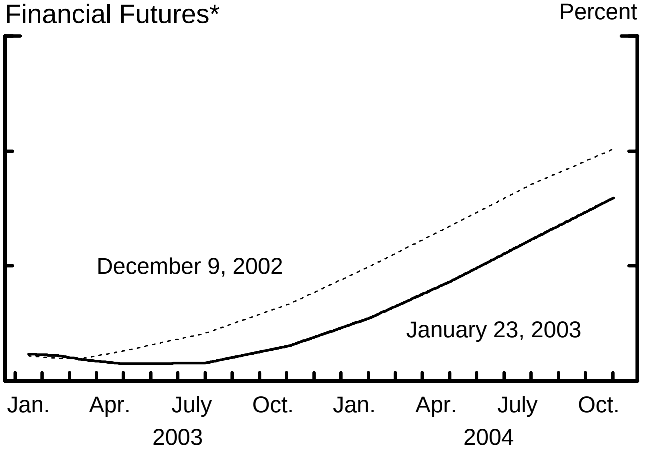


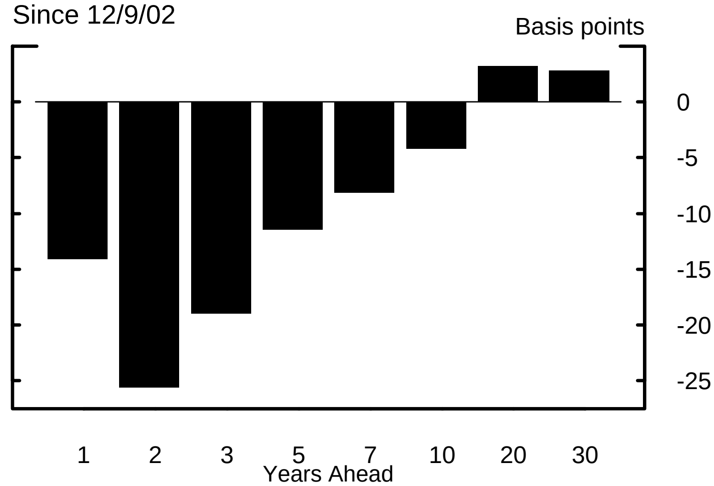
Chart 1
Financial Market Indicators

Expected Federal Funds Rates Estimated from Financial Futures*

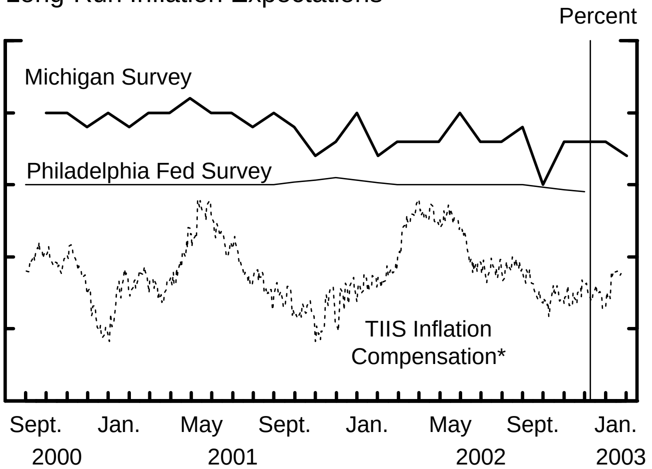


*Estimates from federal funds and eurodollar futures rates with an allowance for term premia and other adjustments.

Change in One-Year Treasury Forward Rates Since 12/9/02

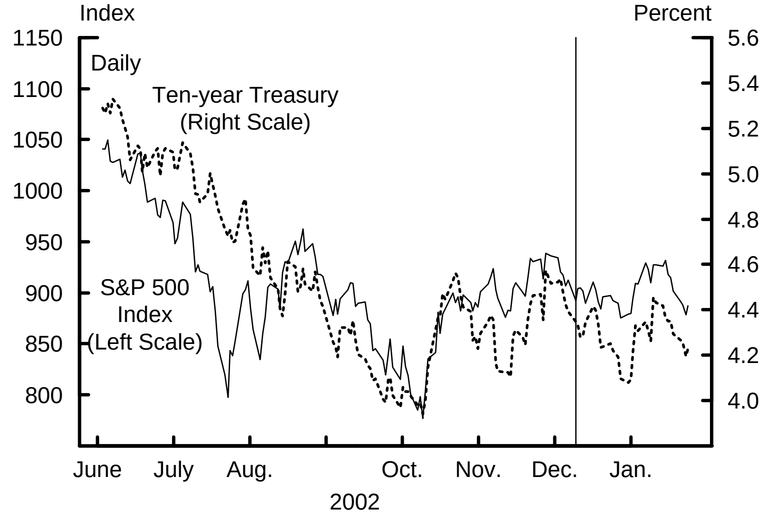


Long-Run Inflation Expectations

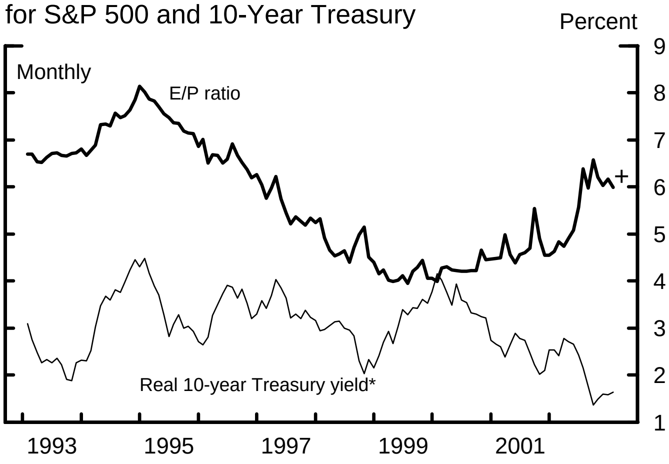


*The inflation rate that equalizes the price of the January 2012 TIIS and the value of a portfolio of nominal securities with the same payments.

S&P 500 and the Ten-year Treasury

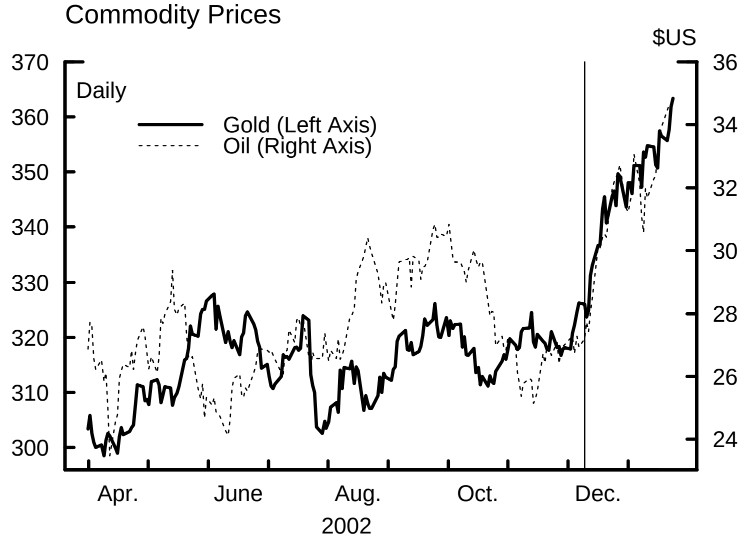


12-Month Forward Earnings-Price Ratio for S&P 500 and 10-Year Treasury



* 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.

Commodity Prices

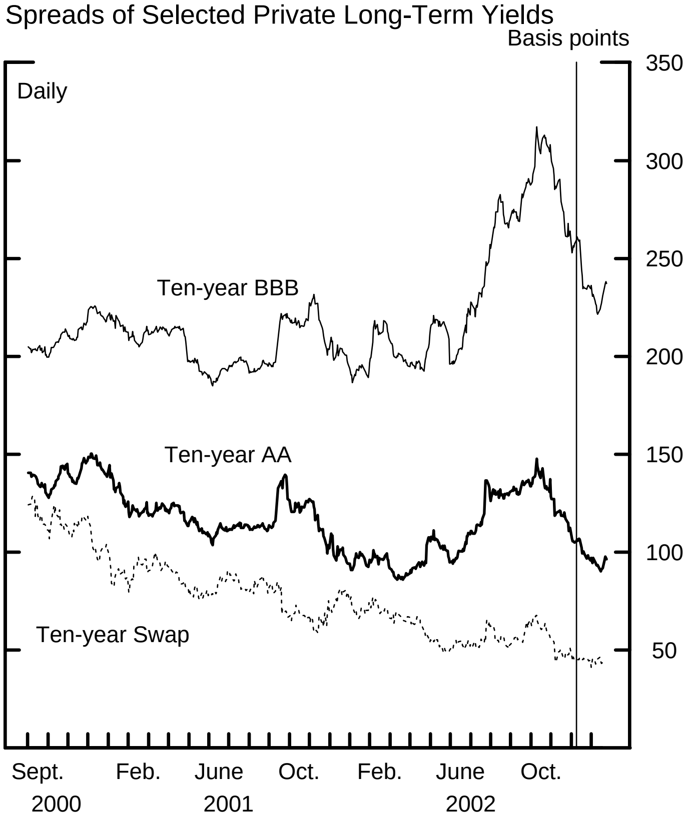


Note: Solid vertical lines indicate December 9.

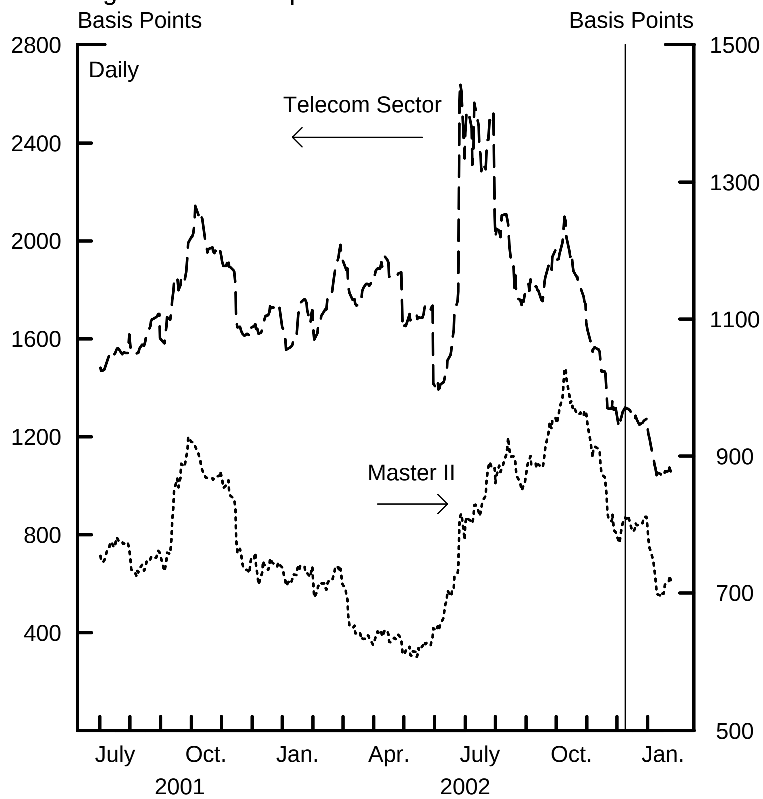
participants have attributed a significant portion of the reduction in real yields to an improvement in the liquidity of the ten-year TIIS following new auction supply. Supporting that assessment, survey measures of inflation expectations were little changed. Major equity indexes have moved in a wide range over the past six weeks; most now stand about ½ to 1 percent below their levels at the time of the December meeting although the NASDAQ finished up about 1-1/2 percent. Despite this volatility, forward-looking measures of uncertainty inferred from options prices have come off their December peaks. Bank stock prices edged up over the intermeeting period, as reports confirmed that most large banks remained quite profitable in the fourth quarter. Moreover, subordinated debt spreads for major banking corporations have narrowed further, even those for banks that have been under scrutiny for their possible involvement in accounting scandals. Indeed, more broadly in the corporate market, a sense of diminished concern about governance issues and perhaps also some increased appetite for risk-taking spurred a substantial decline in yields across the credit spectrum, further narrowing risk spreads.

(3) The foreign exchange value of the dollar declined about 4-1/4 percent against major currencies on balance over the intermeeting period. Market anxiety about global risks appeared to be the key factor weighing on the dollar, but concerns about the potential vulnerability of the dollar to a general pull-back of international capital and the weakish cast of U.S. economic data further dampened market sentiment. The fall occurred despite continued signs of weak growth in both the euro area and Japan and net declines of 20 to 30 basis points in yields on their long-term government securities. Broad measures of stock prices were down sharply in the euro area and about unchanged in Japan.

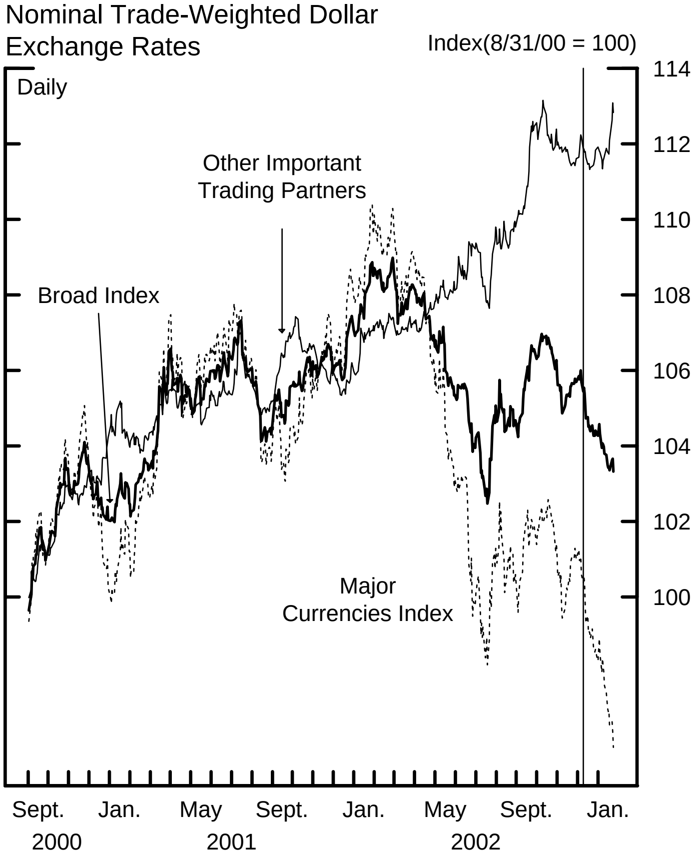
Chart 2
Financial Market Indicators

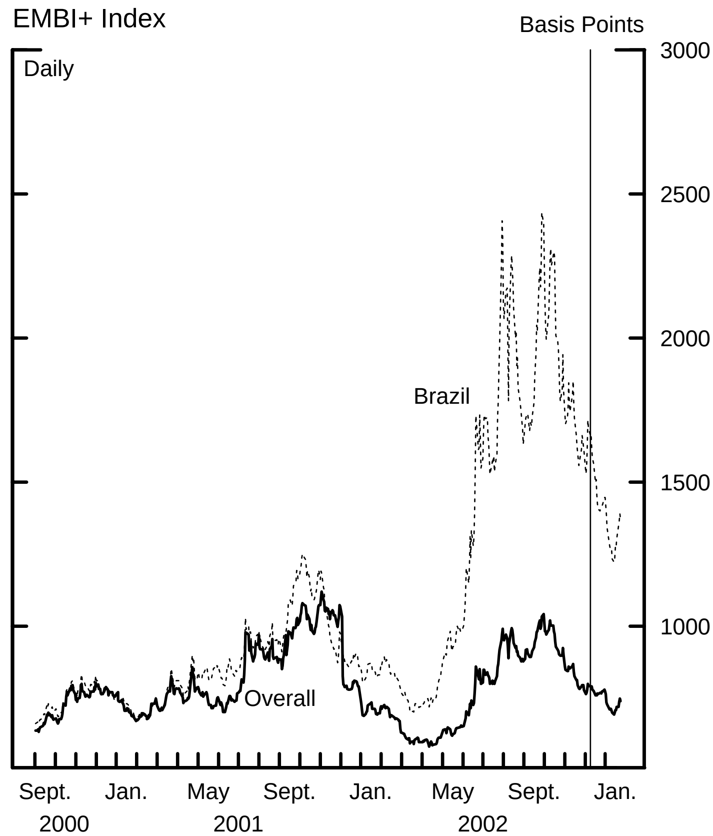


Note. Spreads measured over ten-year Treasury.



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





Note: Solid vertical lines indicate December 9.

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(4) The dollar rose about 1 percent over the intermeeting period against an index of the currencies of our other important trading partners, mainly reflecting a 6 percent gain against the Mexican peso. Continued above-target inflation forced the central bank of Mexico to tighten policy in January, its third tightening in four months. The ongoing general strike in Venezuela has sliced oil revenue and contributed–along with worries about the possible curtailment of crude oil from Iraq–to a sharp rise in the price of oil on global markets. The Venezuelan bolivar tumbled more than 30 percent against the dollar, to a new low, and Venezuela's EMBI+ spread widened 475 basis points. In contrast, financial market sentiment toward Brazil and Argentina improved on balance over the intermeeting period. Market participants were encouraged by the new Brazilian administration's signal of its intention to run a tight fiscal policy and reform the pension system and by the Brazilian central bank's tightening to bring inflation back toward its target, but this enthusiasm appears to have waned in recent days. On net, the *real* rose more than 7 percent against the dollar and Brazil's EMBI+ spread contracted 280 basis points. The Argentine peso appreciated nearly 13 percent versus the dollar, and the extremely high spread on Argentina's debt narrowed 130 basis points, as Argentina negotiated an agreement with the IMF that will allow it to stay current on its official obligations. Stock markets in both Brazil and Argentina recorded sharp gains during the intermeeting period. In emerging Asia, tensions over the North Korean situation weighed on South Korean equity prices, which fell nearly 14 percent.

(5) In recent months, business demands for credit have firmed a bit, albeit from a quite anemic pace, while household borrowing has edged off its previous rapid

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2. .

Our Desk did not intervene.

rate. Nonfinancial corporations have raised funds in the bond market on net over the past few months after paydowns in the third quarter, and runoffs of bank loans and commercial paper have abated somewhat. A smaller net percentage of banks responding on the January Bank Lending Practices survey reported that demand for business loans continued to weaken. However, as in the past few surveys, banks on net continued to indicate that they had tightened terms and standards on business loans over the past three months. In the household sector, growth of mortgage debt has remained robust while revolving credit appears to have decelerated, perhaps reflecting the only modest increase in sales over the holiday season and continued substitution of mortgage credit for other forms of consumer credit. The federal budget seems poised to record a small surplus this month, but is projected to return to deficit in February.

(6) M2 growth stepped down from a 7-3/4 percent rate in November to about a 2-3/4 percent pace last month, considerably weaker than projected in the December Bluebook.[3] Much of the deceleration was concentrated in the liquid components of M2, likely in part reflecting a falloff in the volume of mortgage refinancings and the associated prepayments on mortgage-backed securities, which boost liquid deposits for a time. Even so, the drop-off in money growth runs counter to the impetus that might be expected from the November policy easing.

3. These data incorporate the effects of the annual seasonal factor review and are confidential until their release, which is planned for January 30.

Policy Alternatives

(7) The data that have become available since the December meeting have made even starker the contrast in the economic outlook in the past few Greenbooks between near-term sluggishness and longer-term strength. Businesses' apparent reluctance to invest and willingness to keep even leaner inventory positions brought output growth to a standstill last quarter. But the continued resilience of household spending, prospects for enhanced fiscal stimulus, an upward revision to estimated structural productivity growth, and a weaker dollar have led the staff to raise its projection for real GDP growth this year and next. With the funds rate target assumed to be unchanged until tightening begins in mid-2004, stock prices rising steadily, and corporate bond yields edging down as risk spreads narrow (all about as projected in the December Greenbook), output is expected to expand 3-1/2 percent this year and 4-3/4 percent in 2004, around 1/4 and ½ percentage points faster, respectively, than in the previous forecast. While businesses have remained cautious about new investment and hiring, they are apparently managing to make their existing resources more productive, leading the staff to raise its assessment of structural productivity. As a result, actual GDP growth is projected to remain below that of its upward-revised potential over the first half of this year, contributing to a rise in the unemployment rate to 6-1/4 percent. Thereafter, economic activity is seen as accelerating noticeably, owing in part to a strengthening fiscal impetus–though the fiscal stimulus that eventually materializes is projected to be smaller than the proposals currently on the table. The unemployment rate drops to just under 5-1/2 percent by the end of next year, still about ½ percentage point above the staff's NAIRU estimate. Inflation edges down a bit more than in the December Greenbook owing to the greater resource slack and faster productivity growth, offset in part by the effects of higher oil and non-oil import prices. The core PCE inflation rate is only a tad above 1 percent by the fourth quarter of 2004. (Some observations on monetary policy and geopolitical tensions are offered in the box on the next page.)

Monetary Policy and Geopolitical Tensions

The phrase "geopolitical tensions" that has gained much currency of late is meant to stand in for a variety of global trouble spots, most notably including a possible war with Iraq, nuclear standoff on the Korean peninsula, a general strike in Venezuela that has curtailed the flow of oil from that important supplier, and the risk of terrorist attacks around the globe. To put it mildly, economists cannot provide much guidance on quantifying the probability of when these problems will come to a head or how the public will react as they are played out.

The difficulties in specifying such uncertainties in a meaningful way lie at the heart of why the staff forecast does not spell out a single scenario as to how the situation in Iraq is settled. But to the extent that the staff follows the lead of markets–say, as in the forecast that oil prices will gradually recede from their current levels–some average of potential scenarios is implicit in parts of the Greenbook.

Over the years, a simple syllogism has served the Committee well in explaining how an event essentially exogenous to its action influences its decisions, whether that event be a major fiscal initiative, a change in the stance of monetary policy abroad, or a significant swing in a key asset price. The logic runs:

- Given the lags in the effect of monetary policy, a central bank should be preemptive–that is, act in advance of anticipated major shocks to the economic system;

- Setting policy preemptively requires basing decisions on a forecast of aggregate demand and inflation pressures;

- As a result, any event that affects the forecast influences monetary policy.

Following this argument, the Committee would presumably want to put in place policy that best positions the economy to absorb the effects of potential hostilities. But in that regard, the Committee has already responded to geopolitical tensions by pulling the funds rate down to a historically accommodative level to counter the effects of those tensions in exacerbating businesses' reluctance to hire and spend.

Monetary Policy and Geopolitical Tensions (continued)

Thus, all else equal, the current stance of policy would not need to be changed unless the Committee's assessments of the probability of war and the likely effect of war on the economy have changed significantly. Perhaps the more pertinent possibility is to consider how the Committee should act if it came to the conclusion that war with Iraq was almost a certainty. The problem is putting a sign to the effect of war on aggregate demand and inflation pressures. A lesson from the Gulf War is that uncertainties may be resolved by military action, making it possible that household and business confidence will be emboldened should it become evident that the war will be brief and successful. If so, an unleashing of pent-up private demands fueled in part by the currently accommodative stance of monetary policy (at least as judged by the level of the real federal funds rate relative to estimates of its equilibrium) would likely combine with near-term fiscal impetus to spur aggregate demand, particularly if added supplies on the world market sent oil prices tumbling. But the Committee might also envisage worse outcomes, including a protracted stalemate, the use of weapons of mass destruction, or a slashing of available oil supplies. While the relative probabilities of such tail events might heavily favor positive outcomes for spending, the expected cost to the Committee's objective of the adverse ones should they occur might be substantial.

This is a specific example of the general property that the Committee has previously noted: Heightened uncertainty makes forecasting difficult, implying that it is harder to act preemptively. The Committee may be even less inclined to key its policy now on the expectation of a specific war scenario if it believed that at some later date public confidence or fragile financial markets might need the boost associated with significant policy ease. That said, research on the zero bound to nominal interest rates generally has the implication that it is better to ease early in anticipation of an adverse shock than to "save your ammunition."

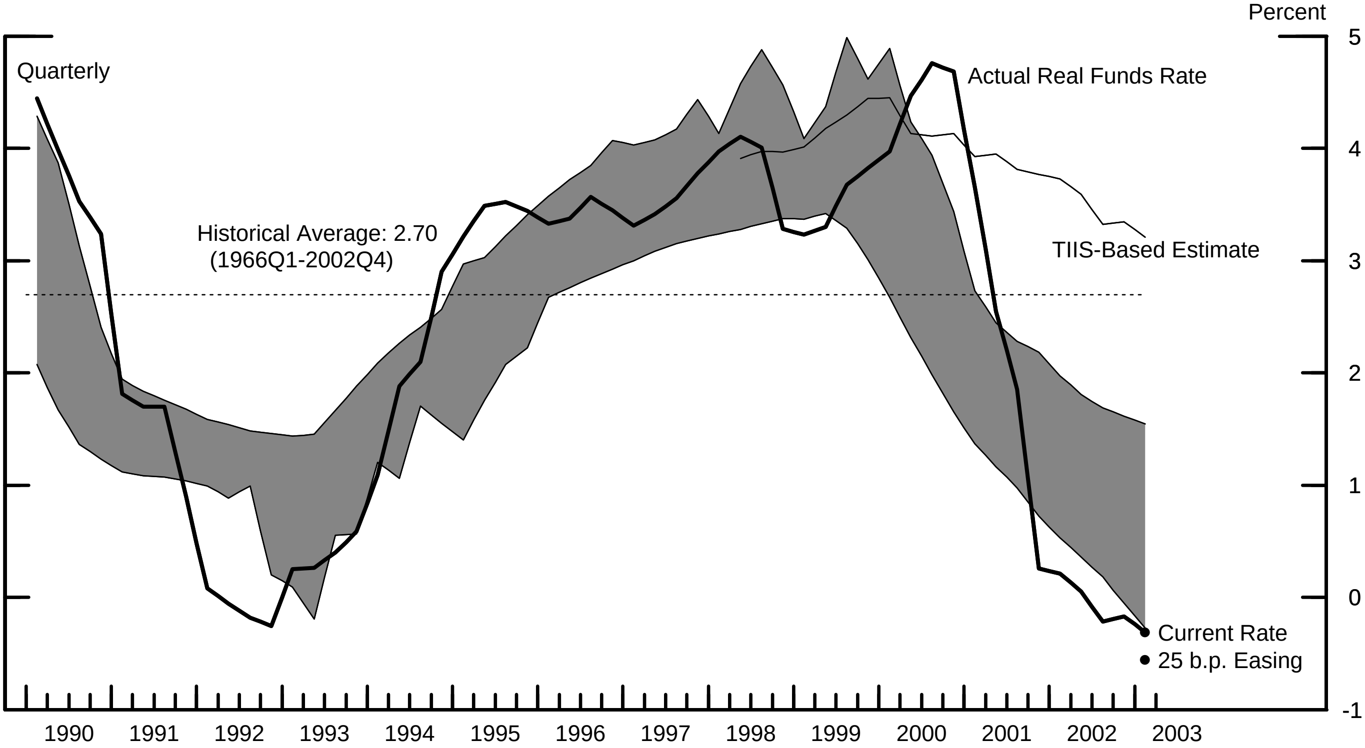
(8) If the Committee shares the staff's assessment of economic prospects, it may want to **keep policy unchanged** at this meeting, even granted that the unemployment rate seems poised to head higher and stay at an elevated level for longer than had been expected in December. Given the lags in monetary policy, the Committee may view the near-term increase in economic slack as inevitable and be satisfied that the existing policy stance will help to return economic growth to a pace

above that of its potential by the second half of this year. Indeed, with private yields lower and the dollar weaker than in December, the Committee may be more convinced that the existing financial stimulus will be adequate to achieve satisfactory economic growth with low inflation, especially given the odds of more substantial fiscal impetus. While considerable uncertainty surrounds estimates of equilibrium interest rates (as addressed in the box below), the current real funds rate is negative and below nearly all current estimates of its equilibrium level. Even though economic slack persists through 2004, the Committee may place slim odds on the possibility that disinflation would cumulate to the point that core inflation becomes unacceptably

Uncertainty Regarding the Equilibrium Real Funds Rate

As in recent bluebooks, the shaded region in Chart 3 portrays the range of estimates of equilibrium real federal funds rates shown in the table. This range reflects uncertainty across the two models used (FRB/US and a statistical model) and across two estimation methods (a "one-sided" approach that uses only historical data and a "two-sided" approach that takes account of data and projections after the date of the estimate of the equilibrium rate). However, the shaded region understates the full extent of uncertainty because it does not incorporate the imprecision with which specific models are estimated–that is, parameter uncertainty. For example, standard errors of the equilibrium rates estimated using the "two-sided" statistical filter are about 1-1/4 percentage points. This yields a 70 percent confidence interval of 2-1/2 percentage points, wider than the shaded region itself. Moreover, the standard error for the "one-sided" filter estimates, which probably better characterizes statistical uncertainty regarding the current equilibrium rate estimate, implies a 3-1/2 percentage point confidence interval.

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 four 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 - 2003Q1.

Equilibrium Real Funds Rate Estimates (Percent)

	2001	2002H1	2002H2	2003Q1
Statistical Filter				
- Two-sided:				
Based on historical data and the staff forecast	1.1	0.4	0.3	0.3
December Bluebook	*1.2*	*0.6*	*0.3*	--
- One-sided:				
Based on historical data*	2.3	1.3	0.1	-0.3
December Bluebook	*2.4*	*1.6*	*0.6*	--
FRB/US Model				
- Two-sided:				
Based on historical data and the staff forecast	2.4	1.9	1.7	1.5
December Bluebook	*2.2*	*1.8*	*1.6*	--
- One-sided:				
Based on historical data**	2.2	1.4	0.7	0.4
December Bluebook	*2.3*	*1.4*	*0.7*	--
Treasury Inflation-Indexed Securities	3.9	3.7	3.3	3.2
December Bluebook	*3.9*	*3.7*	*3.4*	--

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

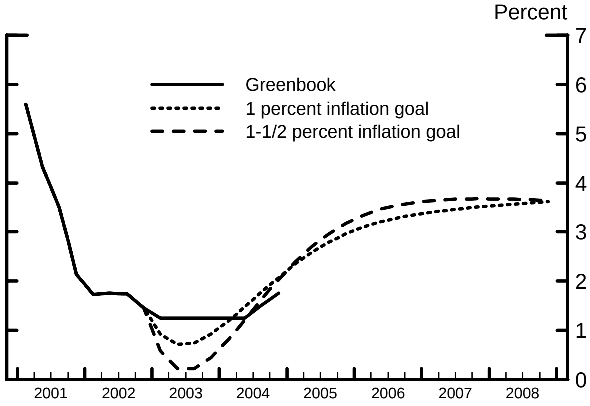
low. To date, inflation expectations have remained stable, and the response of inflation to resource slack has been very sluggish. Moreover, the Committee may view the staff's estimates of the natural rate of unemployment or of the trend of structural productivity as too optimistic. In that regard, the Committee may now see upside risks (perhaps in the form of a sharp revival of private spending, greater-than-expected fiscal stimulus, or a steeper dollar depreciation than is built into the staff forecast) as well balanced with downside risks (including the failure of business confidence to recover or more protracted tensions around the globe).

(9) Alternatively, the Committee may choose to ease policy **25 basis points** at this meeting to make faster progress than in the Greenbook baseline in reducing economic slack, which runs along a higher path than in the prior forecast. For example, the policymaker perfect foresight simulations indicate that near-term easing would bring the unemployment rate more quickly to its natural rate, even with a 1 percent core PCE inflation target and an element of interest-rate smoothing (see chart). The case for easing would be strengthened if the Committee believes that current inflation is already at the lower end of its desirable range so that the further disinflation in the Greenbook should be avoided. Moreover, the Committee might be concerned that inflation could well fall short of the path in the Greenbook absent an easing, producing a firming in the real short-term interest rate. The Committee might put particular weight on that possibility if it believes that, owing to the global threats, continued capital overhangs, and lingering business pessimism, the chance of further sluggish investment and hiring remains unacceptably high. In such a circumstance, the Committee may see additional stimulus as needed to support overall spending until business confidence can recover. In addition, while the staff has read the continuing weakness in the labor market as signaling higher structural productivity, the Committee may place sizable odds on the view that the same data augur more sluggish economic activity than in the Greenbook forecast.

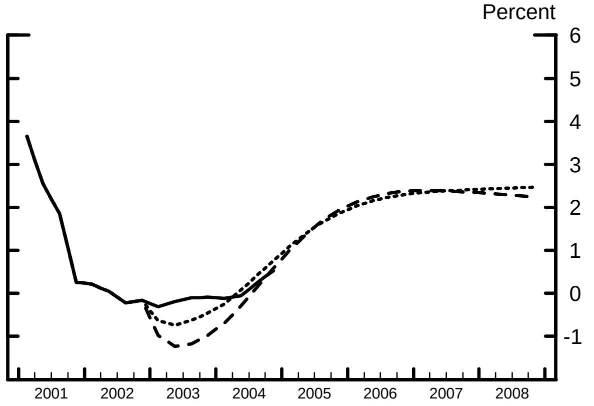
(10) According to futures markets and surveys, market participants see only

Chart 4
Policymaker Perfect Foresight Strategy for Monetary Policy

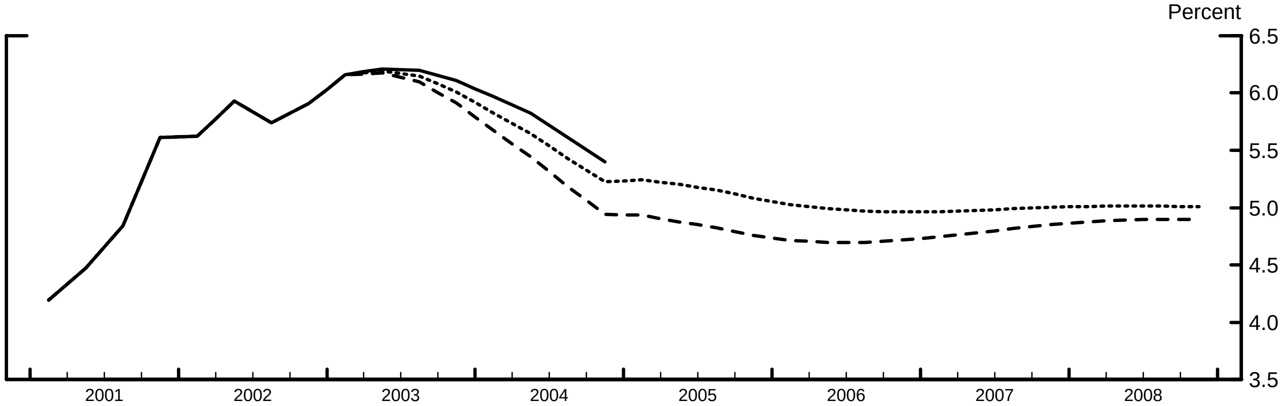
Nominal Federal Funds Rate



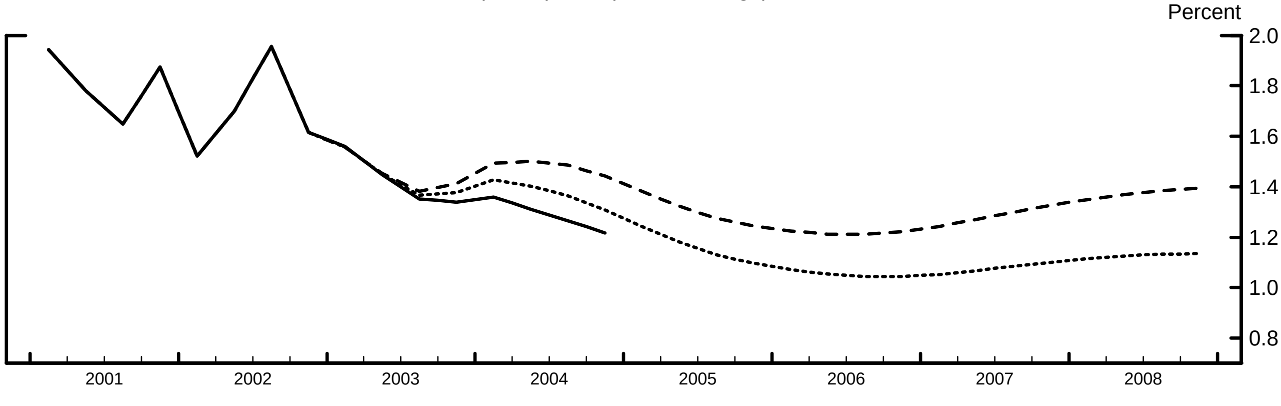
Real Federal Funds Rate[1]



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 3-3/4 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 moderately

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.

very slim odds of an easing of policy at this meeting and only a few expect a change in the balance-of-risks statement. Market prices would therefore likely react little to a Committee decision that confirmed those expectations, absent a change in the tone of the announcement. In contrast, a 25 basis point easing, even if associated with continued balance in the risk assessment, would surprise markets and likely induce a decline in short-term interest rates of roughly comparable magnitude. Longer-term yields and the foreign exchange value of the dollar would probably also fall, but the declines would be tempered if equities rallied. However, the odds of a significant stock market rally would be reduced by any impression that the FOMC saw appreciable further weakness in economic activity.

(11) Under the Greenbook forecast, the growth of total nonfinancial debt is projected to slow to a 6-1/4 percent rate this quarter and to 5-1/2 percent in the next. The government components, both federal and state and local, register the sharpest deceleration over the period.[4] Household borrowing is projected to moderate, as purchases of cars and new homes finally slow from their brisk run. Business borrowing is projected to pick up over the first half of this year, with some restocking of inventories, recovery of fixed investment, and resumption of merger activity. Firms are expected once again to turn to the bond market for most of their external financing needs in order to lock in longer-term financing at historically low interest rates.

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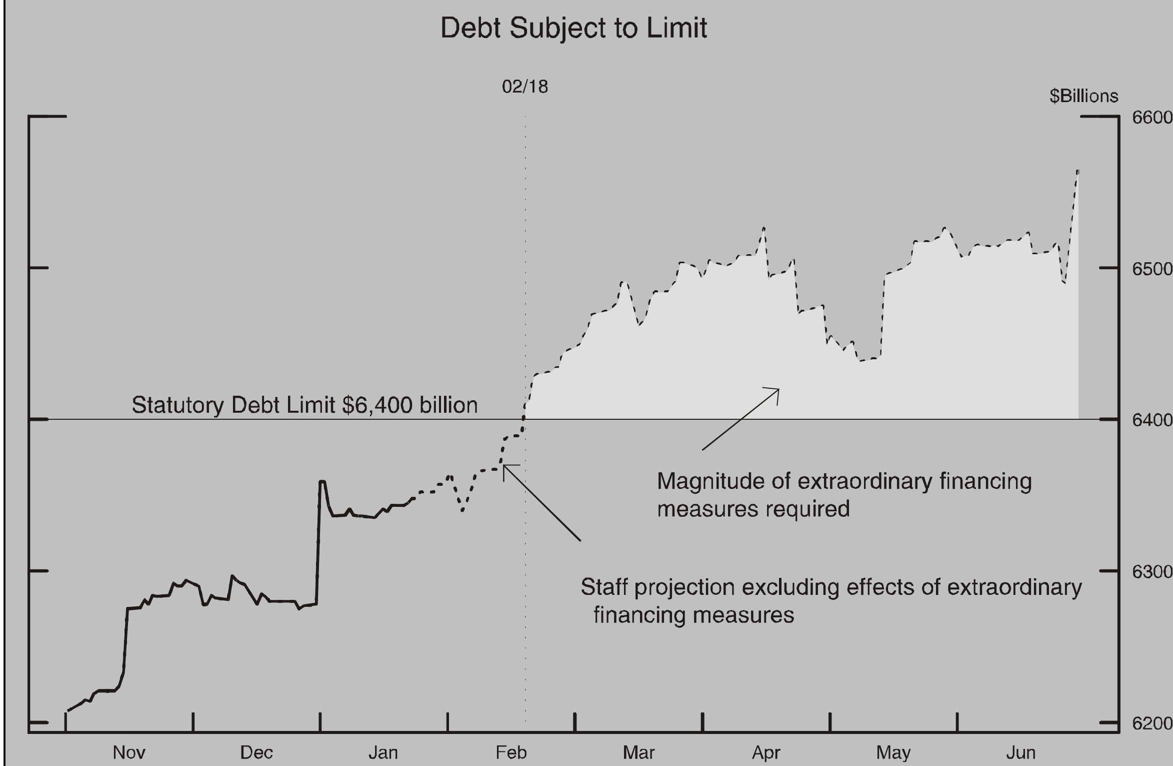
4. In this forecast, the debt ceiling constraint leaves no material imprint on the level of federal debt. As discussed in the box on the next page, the staff projects that in the latter half of February the federal government will begin to resort to the accounting devices it has used in similar circumstances in the past in the absence of legislation to raise the debt ceiling.

The Treasury Debt Ceiling

Congress raised the debt limit to $6.4 trillion last summer, but the pace of borrowing since then has pushed debt subject to the limit to within about $60 billion of this ceiling (chart). Staff estimates suggest that–absent Congressional action–the current ceiling will become binding by mid-February. Thereafter, the Treasury would need to resort to the tactics it has followed in past episodes–calling in compensating balances at depository institutions to obtain more operating cash and temporarily disinvesting government pension funds--to create room under the ceiling for the issuance of marketable debt. Such maneuvers could create a funding cushion of perhaps $100 billion–enough to allow the Treasury to operate comfortably for a few weeks and perhaps until its cash is replenished by April tax receipts.



(12) Over the first half of this year, M2 is projected to grow at a pace closer to that of nominal income, after having posted a 2-3/4 percent decline in its velocity last year. The moderation in M2 growth owes partly to the ebbing of the response of money demand to the easing of last November and partly to the unwinding of the boost to the aggregate from the latest wave of mortgage refinancings. That said, monthly growth rates of M2 are likely to be uneven in the period just ahead, in part because the staff projects an unusually small buildup of deposits ahead of the April tax date owing to another year of low individual tax payments.

M2 Growth Under Alternative Policy Actions

		No Change*	Ease 25 bp
Monthly Growth Rates			
	Nov-02	7.7	7.7
	Dec-02	2.7	2.7
	Jan-03	5.5	5.5
	Feb-03	6.7	7.1
	Mar-03	5.4	6.2
	Apr-03	0.0	0.8
	May-03	10.0	10.7
	Jun-03	2.8	3.3
Quarterly Growth Rates			
	2002 Q2	4.1	4.1
	2002 Q3	9.2	9.2
	2002 Q4	6.9	6.9
	2003 Q1	5.4	5.6
	2003 Q2	4.5	5.2
Annual Growth Rates (Q4/Q4)			
	2001	10.2	10.2
	2002	6.9	6.9
Growth From	To		
2002 Q4	Mar-03	5.5	5.8
2002 Q4	Jun-03	5.0	5.5
Dec-02	Mar-03	5.9	6.3
Dec-02	Jun-03	5.1	5.7

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

Directive and Balance-of-Risks Language

(13) Presented below for the members' consideration is draft wording for (1) the directive and (2) the "balance of risks" sentence to be included in the press release issued after the meeting (not part of the directive).

(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.

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	1.13	1.18	1.26	1.34	1.28	1.69	2.79	4.01	4.91	1.27	2.17	7.37	5.02	5.93	4.01
Monthly																
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
Dec 02	1.24	1.20	1.21	1.27	1.34	1.31	1.84	3.09	4.31	5.12	1.57	2.41	7.45	5.20	6.05	4.12
Weekly																
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	1.24	1.22	1.30	1.36	1.29	2.03	3.31	4.47	5.22	1.79	2.52	7.55	5.24	6.19	4.21
Dec 13 02	1.24	1.22	1.21	1.28	1.34	1.32	1.89	3.12	4.32	5.11	1.64	2.45	7.45	5.20	6.04	4.18
Dec 20 02	1.27	1.20	1.22	1.27	1.34	1.32	1.83	3.08	4.32	5.15	1.54	2.40	7.45	5.18	6.03	4.07
Dec 27 02	1.23	1.13	1.18	1.26	1.35	1.33	1.69	2.94	4.19	5.05	1.38	2.30	7.38	5.16	5.93	4.01
Jan 3 03	1.20	1.18	1.22	1.25	1.31	1.28	1.69	2.94	4.20	5.06	1.35	2.33	7.37	5.16	5.85	4.06
Jan 10 03	1.21	1.17	1.20	1.25	1.31	1.25	1.80	3.13	4.36	5.20	1.45	2.38	7.44	5.20	5.95	4.03
Jan 17 03	1.25	1.17	1.19	1.23	1.30	1.25	1.77	3.12	4.35	5.18	1.36	2.29	7.39	5.20	5.97	4.03
Jan 24 03	--	1.17	1.18	1.21	1.28	1.26	1.69	2.98	4.23	5.09	1.23	2.18	--	--	5.91	3.93
Daily																
Jan 7 03	1.20	1.17	1.19	1.24	1.32	1.25	1.77	3.06	4.31	5.16	1.44	2.41	7.43	--	--	--
Jan 8 03	1.29	1.17	1.19	1.23	1.31	1.25	1.73	3.03	4.26	5.12	1.37	2.30	7.35	--	--	--
Jan 9 03	1.29	1.18	1.20	1.25	1.30	1.26	1.89	3.24	4.45	5.28	1.48	2.38	7.48	--	--	--
Jan 10 03	1.25	1.17	1.20	1.24	1.30	1.25	1.81	3.21	4.43	5.26	1.48	2.38	7.47	--	--	--
Jan 13 03	1.26	1.17	1.21	1.27	1.31	1.27	1.82	3.18	4.42	5.23	1.44	2.35	7.44	--	--	--
Jan 14 03	1.24	1.18	1.19	1.24	1.30	1.23	1.78	3.12	4.36	5.19	1.38	2.30	7.41	--	--	--
Jan 15 03	1.30	1.17	1.20	1.23	1.30	1.25	1.77	3.12	4.35	5.18	1.35	2.28	7.39	--	--	--
Jan 16 03	1.24	1.17	1.18	1.22	1.30	1.26	1.77	3.12	4.35	5.17	1.37	2.28	7.39	--	--	--
Jan 17 03	1.20	1.17	1.18	1.21	1.29	1.25	1.73	3.07	4.29	5.12	1.28	2.22	7.34	--	--	--
Jan 20 03	1.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Jan 21 03	1.31	1.17	1.19	1.22	1.28	1.27	1.70	3.02	4.26	5.10	1.27	2.21	7.32	--	--	--
Jan 22 03	1.26	1.17	1.17	1.19	1.28	1.24	1.67	2.95	4.20	5.07	1.20	2.15	7.28	--	--	--
Jan 23 03	--	1.16	1.17	--	1.27	--	1.70	2.98	4.23	5.09	1.22	2.17	--	--	--	--

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

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)					
2000	-1.7	6.1	8.6	17.4	9.3
2001	6.8	10.3	11.3	18.5	12.8
2002 p	3.3	7.0	8.0	5.2	6.4
Quarterly(average)					
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	4.8	8.5
Q4 p	5.4	8.3	9.0	9.7	8.7
Monthly					
2001-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	7.3	7.5	3.1	6.0
July	7.3	12.7	14.2	-0.5	8.5
Aug.	-14.2	9.5	16.0	13.6	10.8
Sep.	8.1	5.3	4.6	4.7	5.1
Oct.	8.7	10.3	10.8	-12.5	3.2
Nov.	1.2	10.0	12.3	41.4	19.7
Dec. p	18.1	2.7	-1.3	18.9	7.8
Levels ($billions):					
Monthly					
2002-Aug.	1183.2	5680.3	4497.1	2611.0	8291.3
Sep.	1191.2	5705.5	4514.3	2621.3	8326.7
Oct.	1199.8	5754.6	4554.9	2594.1	8348.7
Nov.	1201.0	5802.4	4601.4	2683.5	8485.9
Dec. p	1219.1	5815.6	4596.4	2725.7	8541.2
Weekly					
2002-Dec. 2	1229.5	5822.3	4592.8	2719.7	8542.0
9	1207.4	5810.2	4602.8	2732.1	8542.3
16	1210.6	5813.9	4603.3	2736.9	8550.8
23	1228.0	5825.9	4597.9	2719.3	8545.2
30p	1227.6	5816.1	4588.5	2724.5	8540.6
2003-Jan. 6p	1206.0	5797.8	4591.9	2684.2	8482.0

p preliminary