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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 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.

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May 2, 2002

MONETARY POLICY ALTERNATIVES

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

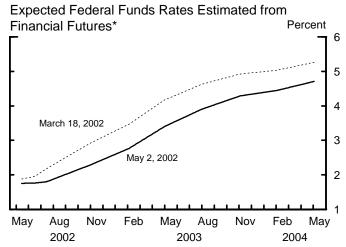
MONETARY POLICY ALTERNATIVES

Recent Developments

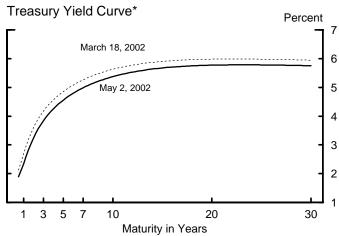
(1) Market participants had largely anticipated the Committee's decision to leave the intended federal funds rate at 1-3/4 percent and to shift its assessment of the risks to the economy to neutral at the March meeting. Nonetheless, the accompanying press release was read as more tentative about the pace of economic recovery than had been expected in financial markets, and short- and intermediatedated Treasury coupon yields fell 5 to 11 basis points over the balance of the day. In the weeks that followed, that interpretation of the FOMC statement was reinforced by mixed incoming data regarding the strength of final demand, by announcements of weaker-than-expected corporate earnings prospects, and by escalating tensions in the Middle East that fed concerns that higher oil prices could restrain spending. In addition, comments by several Federal Reserve officials were viewed as signaling that monetary policy would remain on hold for longer than had been thought. As a result, market participants have significantly trimmed back their expectations for policy action to the point that they now seem confident that the Committee will leave its target federal funds rate unchanged and retain a neutral balance-of-risks statement at this meeting. Looking further ahead, expected federal funds rates implied by eurodollar futures contracts have fallen more than 75 basis points since the March meeting, but they price in about 75 basis points of tightening by the end of this year and a target federal funds rate close to 4-1/2 percent by the end of 2003 (Chart 1).¹

¹ The federal funds rate has averaged close to its 1-3/4 percent target over the intermeeting period. The Desk has purchased \$9.6 billion of Treasury securities in outright operations: \$8.4 billion of Treasury coupon securities and bills in the market and \$1.2 billion of bills from foreign official institutions. The outstanding volume of long-term System RPs has decreased \$4 billion to \$19 billion.

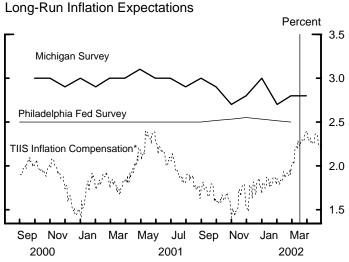
Chart 1 Financial Market Indicators



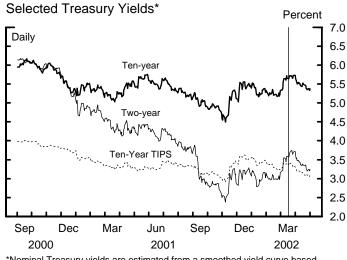
^{*}Estimates from federal funds and eurodollar futures rates with an allowance for term premia and other adjustments.



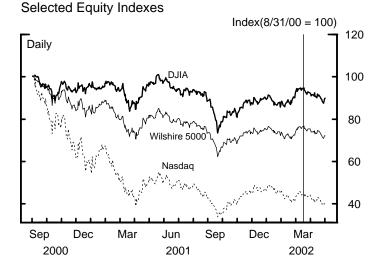
*Smoothed yield curve estimated from off-the-run Treasury coupon securities. Yields shown are those on notional par Treasury securities with semi-annual coupons.

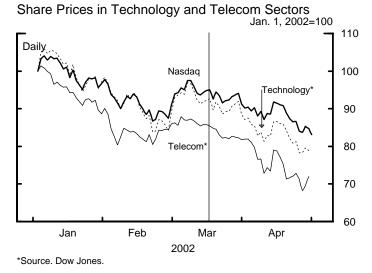


*The inflation rate that would equalize the price of the ten-year TIIS and the value of a portfolio of nominal zero-coupon securities with the same payments.



*Nominal Treasury yields are estimated from a smoothed yield curve based on off-the-run securities.



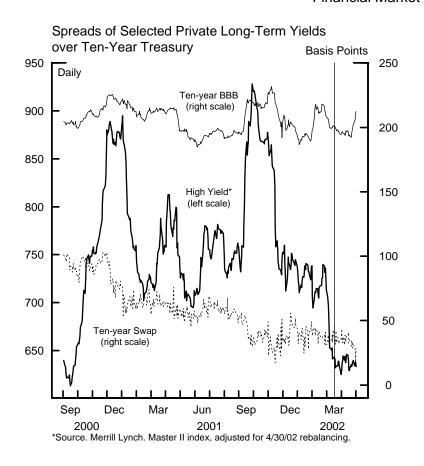


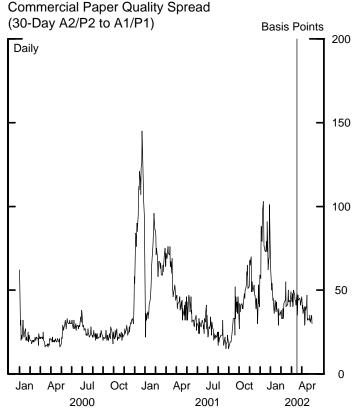
Note: Solid vertical line indicates March 19 FOMC meeting.

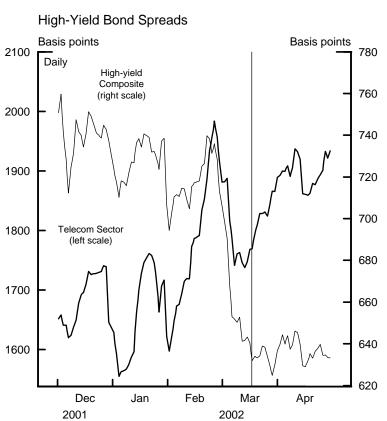
The lower trajectory of policy tightening now foreseen by investors has been reflected in yields on nominal Treasury coupon securities, which have fallen about 20 to 35 basis points since the March meeting. Real interest rates have apparently fallen a comparable amount—at least judging by the behavior of yields on Treasury indexed securities and by the stability of survey measures of inflation expectations.

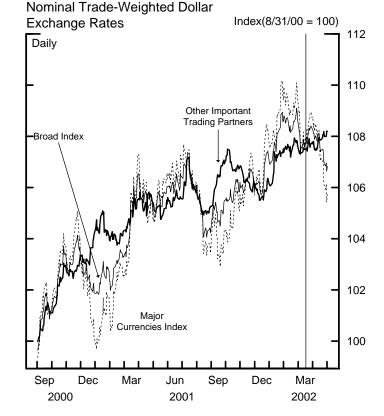
- (2) Investors appear to have been especially sensitive to earnings announcements, which mostly met or exceeded analysts' forecasts for the first quarter but often included downbeat "guidance" by firms regarding current and future revenue, particularly in the telecom and tech sectors. The Nasdaq has been hit hard, dropping 12-1/4 percent since the March meeting, and broader equity indexes have declined as much as 7 percent. While investors have become more skeptical about the strength of the economic expansion, they apparently have little doubt that one is under way: Investment-grade corporate bond spreads have only edged higher over the intermeeting period, and that widening has seemed to owe primarily to concerns about the transparency of the balance sheets of a few highly rated firms; risk spreads on commercial paper and speculative-grade bonds have eased a bit (Chart 2). The exception has once again been the telecom sector, where spreads have widened across the credit-quality spectrum.
- (3) Reassessment of the strength of the economic outlook and the likely path of policy tightening has not been confined to U.S. markets, although shifts in views abroad apparently have been more muted. Benchmark ten-year bond yields in most industrial economies have decreased over the intermeeting period but by smaller amounts than in the United States. Share prices have fared somewhat better abroad, falling only slightly in Japan and about 3 to 5 percent in Europe and Canada. Against this backdrop, the major-currencies index of the foreign exchange value of the dollar has declined 2-1/4 percent over the intermeeting period, with the dollar weakening

Chart 2
Financial Market Indicators









Source. Merrill Lynch. Graphed above are the spreads of the Master II index and the telecom index, adjusted for 4/30/02 rebalancing, over the ten-year Treasury yield estimated from a smoothed yield curve based on off-the-run securities.

Note: Solid vertical line indicates March 19 FOMC meeting.

against a wide range of currencies. The 2-1/4 percent depreciation of the dollar against the euro may have been damped a bit by growing concerns about labor unrest in Germany and Italy and political developments in France. The dollar has fallen 1-3/4 percent against the Canadian dollar, in part as the Bank of Canada reacted to further signs of economic strength by raising its policy rate 25 basis points; nonetheless, futures markets suggest that Canadian policy is expected to tighten less than was thought in mid-March. Although Japan's sovereign debt has been downgraded again, the yen seems to have been supported by recent data on trade and economic activity, more optimistic assessments of economic prospects, and the absence of anticipated large capital outflows after the turn of the fiscal year.²

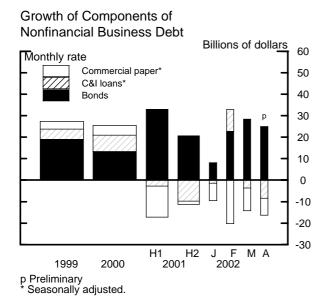
- (4) The foreign exchange value of the dollar has risen slightly since the March meeting vis-à-vis an index of the currencies of our other important trading partners. Argentina has made no significant headway in addressing its fiscal and other structural problems, and the peso has depreciated 25 percent against the dollar. In Venezuela, despite considerable economic strains and an abortive coup, the bolivar has appreciated almost 8 percent against the dollar, apparently benefitting from rising oil prices. The Mexican peso has fallen nearly 4 percent against the dollar following an easing in Mexican monetary policy. Argentine and Venezuelan debt spreads have moved in a wide range, but on balance have edged lower over the intermeeting period. In Brazil, concerns about the erosion of the government's popular support have widened debt spreads 180 basis points. On net, spreads on most other emerging market debt have changed little since the March meeting.
 - (5) Borrowing by domestic nonfinancial sectors is estimated to have slowed

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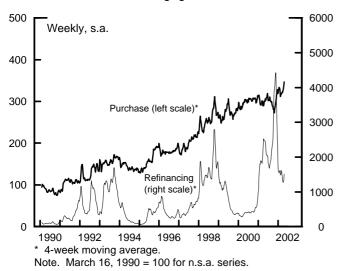
² Over the intermeeting period, U.S. monetary authorities have not intervened in the foreign exchange market,

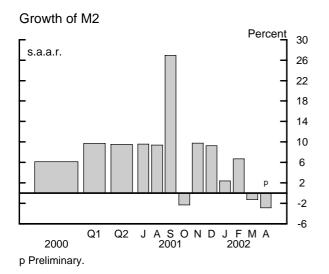
slightly in recent months, but credit appears to have remained available to all but the riskiest borrowers-albeit at terms that have stayed fairly tight. In the nonfinancial business sector, heavy net bond issuance has more than made up for runoffs of both commercial paper and bank loans in the past two months (Chart 3). This shift to longer-term financing has usually been by choice, except in the telecommunications sector, where several firms were pushed out of the commercial paper market. According to the April Senior Loan Officer Opinion Survey, banks have tightened standards and terms on business loans further over the past three months, but the net percentage of domestic banks tightening credit conditions has fallen noticeably. Household debt is estimated to have risen 8 percent at an annual rate in the first quarter, the same pace as in the fourth quarter of 2001. Growth in consumer credit slowed to a 4 percent rate in the wake of a surge in auto finance late last year, but mortgage debt growth picked up to a robust 9-1/2 percent pace. Mortgage refinancing activity has moderated in recent months, but the strong housing market has propelled loan applications to purchase homes to new highs. Treasury debt held by the public stepped up in April on a seasonally adjusted basis but, smoothing through the past few months, has grown slowly. (See the box on page 5 on Treasury debt management developments.)

Chart 3 Debt and Money Growth



MBA Residential Mortgage Indexes

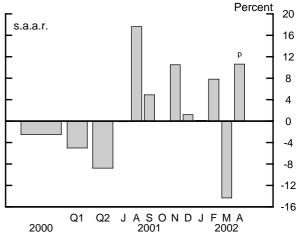




Growth of Household Debt Percent 20 Quarterly, s.a.a.r. Consumer Credit 15 10 5 Mortgage -10 1990 1992 1994 1996 1998 2000 2002

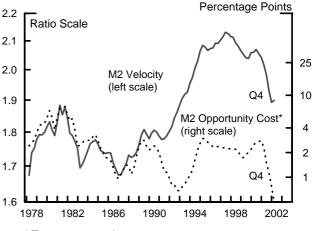
Note. Last observations are for 2002Q1, which are staff estimates.

Growth of Federal Debt



p Preliminary. Note. Treasury debt held by the public, month end.

M2 Velocity and Opportunity Cost



Treasury Debt Management Developments

In early April, the Treasury took unusual steps to avoid breaching its statutory borrowing limit of \$5.95 trillion, disinvesting as much as \$18.7 billion of non-marketable securities from the Government Securities Fund—the so called G-fund of the Federal Employees' Thrift Savings Plan—in exchange for obligations that do not count against the debt ceiling. Investors had expected the Treasury to take such measures, and the divestitures elicited no measurable reaction in financial markets. Even though smaller than anticipated, the inflow of individual non-withheld tax receipts in mid-April was sufficient to allow the Treasury to retire enough marketable debt to reinvest the G-fund in non-marketable debt.

As a result of the weak tax inflows, the Treasury indicated in its May quarterly refunding statement that it would not be paying down debt on net over the second quarter. Market participants were apparently caught by surprise—the Treasury had been projecting a sizable net paydown just three months ago—and Treasury yields rose a few basis points following the announcement. Given its funding needs, the Treasury suspended buy-backs in the second quarter, moved to auction new five-year notes each quarter, and added one more ten-year indexed security to its auction cycle.

Following the release of its refunding statement, the Treasury warned that, if the debt ceiling is not raised by mid-May, it will again have to use stopgap measures to manage its debt. Projections of federal receipts and expenditures by both Treasury and Board staff indicate that the standard measures relied upon to create room under the debt ceiling would be adequate to meet the government's financing needs only until the second half of June.

(6) M2 contracted in March and April, pulling down growth over the first four months of the year to a 1-1/4 percent rate from last year's 10-1/2 percent pace. The slowing in M2 growth owed in part to the turnaround in the opportunity costs of holding M2 assets as yields on its components fell in lagged response to the earlier easing of monetary policy. Among M2 components, retail money market funds have run off as investors have apparently shifted funds into stock and bond mutual funds.

In recent months, lower individual non-withheld federal tax payments and the slowing in mortgage refinancing activity appear also to have contributed importantly to the weakness in $M2.^3$ With nominal income expanding rapidly in the first quarter, M2 velocity rose at a 1-1/4 percent annual rate, in sharp contrast to the declines registered throughout 2001.

³ Households typically accumulate M2 assets to pay taxes owed in April. When such payments are lower than usual, the growth rate of M2, which is reported on a seasonally adjusted basis, is reduced.

Policy Alternatives

- (7)The data received over the intermeeting period led the staff to make modest changes to the contour of its projection of final demand in the near term and to mark up its estimated growth rate of structural labor productivity. The latter revision stretches back several years, implying that the current level of the output gap is now seen to be noticeably wider than in the March Greenbook. In light of this greater degree of resource slack and the associated lessened pressures on inflation, the staff assumes that the Committee will maintain the current stance of policy through the third quarter, and then raise the target federal funds rate to 2 percent in the fourth quarter and to 3-3/4 percent by the end of 2003, 1/4 percentage point lower than in the last projection. Investors currently anticipate more tightening over this period than built into the Greenbook, but, in the staff projection, their growing realization that less tightening will be forthcoming is expected to limit increases in longer-term Treasury yields and mortgage rates through 2003 even as short-term rates move higher. Corporate bond yields are projected to edge lower as investors become more confident in the vigor of the expansion and more receptive to taking on risk. Stock prices are projected to rise enough to provide a risk-adjusted return comparable to that from corporate bonds, and the foreign exchange value of the dollar is assumed to remain near its current level. These financial conditions, along with the boost to spending that results from the more favorable outlook for structural productivity, are expected to support sufficient expansion in real GDP to close most, but not all, of the output gap by the end of 2003. Downward pressure on inflation from slack in labor and product markets over the period is tempered, however, by rising non-energy import prices, and core PCE inflation edges down from 1-1/2 percent in 2001 to 1-1/4 percent this year and next.
 - (8) If the Committee finds the staff forecast to be both likely and

acceptable, it might choose an unchanged target federal funds rate at this meeting, as assumed by the staff. While the current stance of policy is very accommodative and cannot be sustained indefinitely, keeping the funds rate at this level for a couple of quarters, as in the staff forecast, could be seen as consistent with maintaining inflation at a relatively low level as output gradually moves toward its potential. Indeed, as explained in the box on a "perfect foresight" policy on the next page, were the fundamentals of the economy to evolve as in the staff forecast, a policy maker attempting to limit the deviations of output from its potential and inflation from a target of about 1-1/4 percent over the next several years would hold the funds rate near its current level until fall. But policy makers do not have the benefit of perfect foresight: The expansion of aggregate demand in the staff forecast is underpinned by a recovery in investment for which there are only tentative signs thus far in the data, and a delay in tightening would permit the receipt of additional readings on the prospects for capital spending. The Committee may also see little cost to delaying a firming of policy at this time given well-anchored inflation expectations and the apparent lack of other pressures on inflation. Even if the Committee perceived some possibility that inflation at the end of 2003 could be higher than in the staff forecast, it might not be uncomfortable with that outcome given the potential downside risks associated with reduced monetary policy flexibility when inflation is at a low level.

A "Perfect Foresight" Policy

Model simulations in which the FRB/US model is solved to find a path for the funds rate that minimizes squared deviations of output from its potential and inflation from a long-run target have appeared several times in recent Bluebooks. Under this policy—labeled "perfect foresight"—the policy maker is assumed to choose a path for the funds rate with complete knowledge of the various forces shaping the outlook.

We updated this experiment based on an extension of the Greenbook forecast through 2007, using the staff model with certain judgmental adjustments so as to capture key features of the staff outlook. In particular, potential output is expected to grow at a 3-1/2 percent rate after 2003, essentially extending the performance anticipated toward the end of the Greenbook forecast, and the unemployment rate consistent with stable inflation is close to 5-1/4 percent. As for the foreign sector, growth in activity abroad is expected to strengthen to a 3-3/4 percent rate by 2004, and, to hold the current account roughly flat relative to nominal GDP, the dollar is assumed to depreciate 3 percent per year. The fiscal authorities are assumed to produce a small improvement in the budget balance over time, with the unified deficit falling from about 3/4 percent of nominal GDP in 2003 to 1/4 percent, on average, over the next four years.

The perfect foresight policy path for the funds rate was chosen to minimize an equally weighted discounted sum over the entire forecast period of squared deviations of output from its estimated potential and inflation from an assumed long-run target of about 1-1/4 percent, with a small penalty for changing the funds rate. A penalty on interest rate changes was included because, in the FRB/US model, monetary policy has a contemporaneous—albeit small—effect on spending. As a result, an unconstrained policy maker with perfect foresight might move policy dramatically to smooth current-quarter fluctuations in income. Such precise control over very near-term outcomes does not seem credible given the real-world uncertainty surrounding the monetary policy transmission mechanism. The penalty limits this tendency to oversteer the economy, with its value selected so that the policy prescriptions would replicate, on average, the funds rate volatility witnessed over the past ten years.

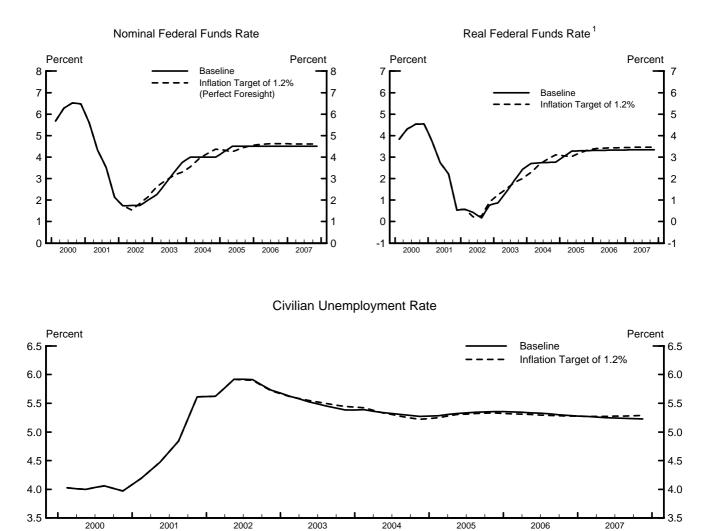
A "Perfect Foresight" Policy (continued)

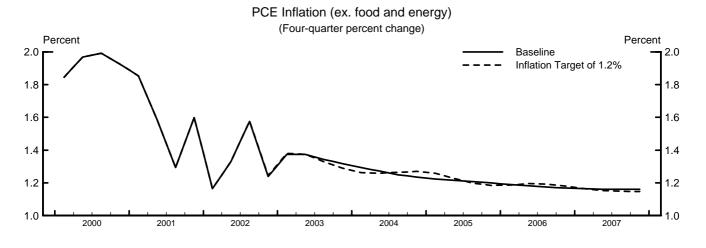
The solid line in the upper left panel of Chart 4 shows the path for the federal funds rate assumed in the Greenbook out to 2003 and judgmentally extended to move inflation ultimately to around 1-1/4 percent. The dotted line plots the federal funds rate that would be chosen by a policy maker with perfect foresight beginning this quarter. This exercise delivers a policy path quite similar to that assumed in the Greenbook. In particular, some delay in the near term appears consistent with bringing inflation to around 1-1/4 percent while remaining sensitive to output fluctuations. As evident in the upper right panel, the return of the real funds rate to its equilibrium level of around 3 percent is gradual and extends beyond the Greenbook horizon.

(9) If the Committee chooses to leave policy unchanged at this meeting, the selection of the balance-of-risks statement would be particularly important in shaping market participants' expectations about the likely future path for policy as well as the reaction to the announcement in financial markets.⁴ If, as in the Greenbook, the Committee sees inflation pressures as likely to remain muted and expects output to grow only somewhat faster than potential supply, then it might well choose to indicate that **risks to the outlook are balanced** over the "foreseeable future." In an environment of heightened uncertainty, in particular, the Committee may view the horizon at which the foreseeable future ends to be shorter than the date at which the Greenbook assumes tightening begins. Even if the Committee is fairly certain its next action will be to tighten, such a statement could still be appropriate if the odds on some disappointment on economic performance in the near term roughly balance

⁴ See the box "Market Expectations Regarding the Balance-of-Risks Statement and the Timing of Policy Moves" for a discussion.

Chart 4
"Perfect Foresight" Strategy for Monetary Policy



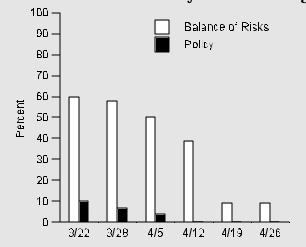


^{1.} The real federal funds rate is calculated as the quarterly nominal funds rate minus the four-quarter lagged core PCE inflation rate as a proxy for inflation expectations.

Market Expectations Regarding the Balance-of-Risks Statement and the Timing of Policy Moves

Market participants' expectations for policy and for the balance-of-risks statement appear to be fairly closely linked. The Money Market Services survey indicates that as expectations for policy tightening at the May meeting waned over the intermeeting period, the fraction of respondents expecting a shift in the balanceof-risks statement toward heightened inflation risks fell considerably (chart). Nonetheless, most market participants expect that the target federal funds rate will have moved higher and the balance-of-risks statement will have shifted toward heightened inflation pressures by the August meeting. However, market participants do not necessarily expect a shift in the balance-of-risks statement to come in advance of the first policy move. For example, eleven of the sixteen respondents expecting a tightening action to come at the August meeting expect the Committee to take that action after maintaining a neutral balance-of-risks statement at the June meeting (table). Similarly, of the five respondents expecting tighter policy at the June meeting, all but one expect the balance-of-risks statement selected at the May meeting to be neutral. Of course, some respondents may think that policy will be tightened following a meeting at which the Committee chooses a neutral balance-of-risks statement because the Committee will be surprised by the strength of aggregate demand. Nonetheless, market participants also appear to see a neutral balance-of-risks statement as providing considerable flexibility with regard to subsequent policy decisions. For example, a few of the respondents expect that the balance-of-risks statement will remain neutral even after the first tightening move.

Expectations of Changes in Policy and the Balance of Risks at the May FOMC Meeting*



^{*} Percentage of respondents to the Money Market Services survey on the dates shown expecting an increase in the target federal funds rate or a shift in the balance-of-risks statement toward heightened inflation

Expectations of Policy and the Balance Risks at Upcoming FOMC Meetings

Number of Respondents	June Balance-of-Risks Statement								
August Policy Decision	Neutral	Inflation Pressures	Total						
No Change	5	2	7						
Tighter Policy	11	5	16						
Total	16	7	23						

Source. Money Market Services.

the possibility that inflation may ultimately pick up. An unchanged target federal funds rate, along with a statement indicating that the risks to the outlook are balanced, would match investors' expectations, and so would likely have little effect on financial markets.

The Committee might see it as less likely than does the staff that final (10)sales will pick up in time to support output growth once the impetus from inventories has run its course or, at least, that the risks are skewed in the direction of disappointing economic growth. For example, the Committee may be concerned that the latest reports and commentary on corporate earnings, as well as the recent data on durable goods orders and shipments, suggest that recovery in the technology and telecommunications sectors could be weaker or delayed longer than in the staff forecast.⁵ In addition, the combination of lower stock prices and rising unemployment could be seen as weighing more on consumer sentiment and spending than assumed by the staff. Indeed, the recent sharp slowing in money growth, although partly explicable in terms of interest rates and other identifiable factors, might be viewed as suggesting some weakness in households' income and spending plans. While the staff has revised up its assessment of past and prospective productivity growth, the Committee may put some weight on the possibility that the growth of potential supply has been even higher for, perhaps, a longer time, implying that economic slack is more sizable than assumed by the staff. In such a circumstance, there would be some risk of an unacceptable updrift of unemployment that may produce a decline in inflation, perhaps inclining the Committee to return to a statement that the **risks are weighted toward economic weakness**. Such an

⁵ In the alternative scenario of "flat investment" reported in the Greenbook, in the FRB/US model, holding capital spending at its current level for the next two years slows the growth of real GDP enough to send the unemployment rate up to 6-1/4 percent by the end of 2003 absent a monetary policy response.

announcement would surprise market participants, because they generally expect the balance-of-risks statement to shift toward heightened inflation pressures before too long. Absent a surprisingly weak employment report tomorrow, the quick reversal of the adoption of a statement of balanced risks at the March FOMC meeting would probably confuse market participants and might be read as signaling a considerable deterioration in the Committee's confidence in economic expansion. In that case, expectations for policy tightening would be pushed back, interest rates could fall substantially, and stock prices and the foreign exchange value of the dollar could decline.

stronger than in the staff forecast and that, if policy were to remain unchanged, economic slack will erode fairly soon, then the risks would seem to be **weighted toward increased inflation pressures**. This more immediate emergence of pressure on resources might eventuate, for example, if economic growth abroad picks up more quickly than projected by the staff.⁶ The Committee might also opt for such a statement if it were concerned about other sources of risks to the inflation outlook, including a widespread jump in health insurance costs, a substantial pass-through of the recent increases in oil prices to prices and wages more generally, and a continuation of the recent weakness in the foreign exchange value of the dollar. While a statement that the risks are weighted toward heightened inflation pressures is consistent with market participants' expectations for the direction of policy, in light of the perceived tone of recent statements by Federal Reserve officials, such a selection

 $^{^6}$ In an alternative simulation of the FRB/Global model reported in the Greenbook, with U.S. monetary policy unchanged, more expansionary foreign demand (amounting to 1 percent of real GDP in foreign industrial countries and 2 percent in emerging market economies) added about $\frac{1}{2}$ percentage point to U.S. real GDP growth over the second half of this year.

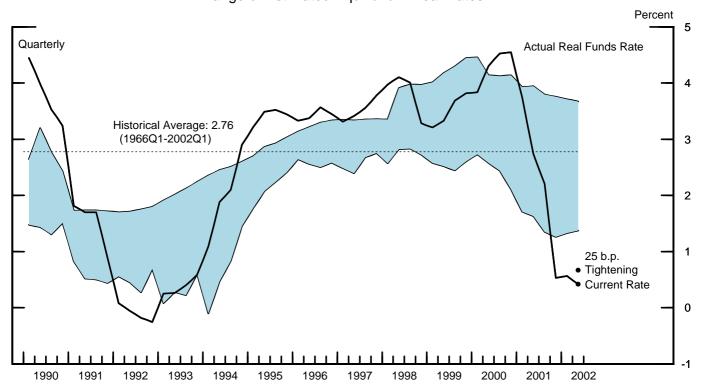
likely would lead investors to move up the timing of their anticipated tightening of policy. As a result, interest rates would rise, especially at shorter maturities, stock prices would fall, and the dollar might appreciate.

- (12) If the Committee views aggregate demand going forward as likely to be more robust than in the staff forecast, then it might choose a **25 basis point increase** in the target federal funds rate at this meeting. With the current real federal funds rate well below its likely equilibrium value, the Committee may believe that the time has come to start the process of moving back toward a more neutral stance in order to reduce the possibility of having to make very rapid adjustments later or risk having inflation pressures mount.⁷ Indeed, the Committee might view a 25 basis point rate hike as merely taking back a portion of the easing undertaken to support the economy in the aftermath of the terrorist attacks, and such a rate increase might be seen as justified since the economic fallout from the attacks has proven to be considerably smaller than had been feared. A 25 basis point move would probably be unlikely to balance the risks to the outlook on this view, and so the balance-of-risks statement would presumably point to risks weighted toward increased inflation pressures.
- (13) The choice of a 25 basis point tightening move accompanied by a statement that the balance of risks is weighted toward increased inflation pressures would catch market participants off guard. Moreover, there is some evidence that market expectations are particularly sensitive to policy moves that mark a change in the direction of policy.⁸ As a result, the tightening could have substantial effects on

 $^{^7}$ The estimate of the prevailing equilibrium real federal funds rate derived from the FRB/US model has been marked down more than $\frac{1}{2}$ percentage point in light of the staff's upward revision to the output gap and a methodological change (Chart 5). Still, the actual real funds rate is seen as lying well below that equilibrium rate.

⁸ See "The Behavior of Financial Markets During Three Recent Episodes of Monetary Policy Tightening," Memorandum to the FOMC from Board Staff, May 1, 2002.

Chart 5
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 five estimates of the equilibrium real federal funds rate. Real federal funds rates employ four-quarter lagged core PCE inflation as a proxy for inflation expectations, with the staff projection used for 2002Q2.

Equilibrium Funds Rate Estimates

Equilibriui	Equilibrium Funds Rate Estimates						
_	<u>2000</u>	<u>2001</u>	2002Q1	Percent 2002Q2 —			
Statistical Filter							
-Based on historical data* <i>March Bluebook</i>	2.6 3.0	2.3 2.7	2.3 2.7	2.2			
-Based on historical data and the staff forecast <i>March Bluebook</i>	2.5 2.8	2.1 2.3	1.9 2.2	1.9 2.1			
FRB/US Model							
-Based on historical data** March Bluebook***	3.6 3.7	1.8 2.0	1.3 1.6	1.4			
-Based on historical data and the staff forecast <i>March Bluebook</i> ***	2.5 2.9	1.7 2.1	1.7 2.1	2.0 2.3			
Treasury Inflation-Indexed Securities March Bluebook	4.2 4.2	3.9 3.9	3.7 3.7	3.7 			

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

^{**} Also employs the staff projection for the current quarter. Backward-looking moving averages, rather than centered moving averages, are used to estimate the persistent and transitory components of shocks to the model.

^{***}These numbers differ from those in the March Bluebook, which were based on FRB/US historical estimates of the output gap. We now use staff estimates of the output gap, and the numbers shown in the table have been adjusted accordingly. This change in methodology reduces the estimates of the equilibrium funds rate about 20 basis points in 2000, about 40 basis points in 2001, and about 50 basis points in 2002.

asset prices, as market participants move up the timing and perhaps increase the cumulative size of expected policy actions. Interest rates would likely rise, especially so on shorter-term instruments, equity markets sell off, and the dollar appreciate on foreign exchange markets.

- (14)Domestic nonfinancial sector debt is projected to expand at a 5-3/4 percent annual rate over the final three quarters of 2002, somewhat faster than in the first quarter. Federal debt growth is expected to rise sharply this quarter on a seasonally adjusted basis, reflecting weak tax receipts and stronger spending, but then fall back in the third and fourth quarters. Nonfederal debt growth is expected to dip this quarter but then pick up to a 6 percent pace over the second half of this year. With the deterioration in business credit quality beginning to reverse as the economy improves, business debt growth is projected to pick up over the course of the year, reflecting increases in investment spending that outstrip gains in internally generated funds. While household bankruptcy rates and losses on consumer loans are expected to remain at elevated levels in the near term, household credit providers generally remain financially sound, and access to credit should not significantly constrain household spending. Nonetheless, household debt growth, which was supported in the first quarter by robust spending on new homes, is expected to moderate over the remainder of the year as growth in spending slows.
- (15) Under the Greenbook forecast, M2 is projected to expand at a 6-1/4 percent pace from April through December, considerably faster than earlier in the year. In part, the pickup reflects the reversal of tax-related effects that have put downward pressure on M2 in March and April but are expected to provide a boost in May. Other special factors that have weighed on money growth this year–including the effects of very strong mortgage refinancing and the increased attractiveness of bond and stock mutual funds–should also have less of a damping effect on money

growth over the balance of the year. For 2002 as a whole, money growth is expected to nearly match the 5-1/4 percent advance in nominal GDP, leaving its velocity about unchanged.

Directive and Balance of Risks Language

(16) 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 ____1-3/4 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 balanced with respect to prospects for both goals [ARE WEIGHTED MAINLY TOWARD CONDITIONS THAT MAY GENERATE HEIGHTENED INFLATION PRESSURES] [ARE WEIGHTED MAINLY TOWARD CONDITIONS THAT MAY GENERATE ECONOMIC WEAKNESS] in the foreseeable future.

May 2, 2002

	Treasury Bills			Treasury Coupons						Federal	Net change	Net RPs ⁵		
	Net	Redemptions	Net					Redemptions Net	Agency Redemptions		Short-	Long-	Net	
4000	Purchases ²	(-)	Change	<1	1-5	5-10	Over 10	(-)	Change	(-)	holdings 4	Term ⁶	Term 7	Change
1999 2000	9.676		45.046	11,895 8,809	19,731	4,303	9,428	1,429	43,928 31,215		43,771	2,035	8,347	10,382
	8,676		-15,846		14,482	5,871	5,833	3,779			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 QI	3,782	1,076	2,706	1,672	5,792	1,283	1,791	3,951	6,586	120	9,172	1,884	-1,378	506
QII	3,097	7,476	-4,379	6,611	8,592	2,047	3,573	6,656	14,167		9,788	639	-2,186	-1,547
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
2001 Sep	348	1,543	-1,195		851				851		-344	11,963	983	12,946
Oct	772		772	1,411	22	422	1,184	473	2,566		3,338	-10,012	5,503	-4,509
Nov	3,075		3,075	1,408	1,920	459			3,787		6,862	-4,236	3,360	-876
Dec	812		812	2,942	634	101	448		4,125		4,937	2,088	3,862	5,951
2002 Jan	2,772		2,772		2,872		582		3,454		6,226	1,115	-4,871	-3,756
Feb	1,042		1,042	2,894	1,101	334	1,054		5,383		6,425	-3,647	-1,401	-5,048
Mar	3,013		3,013	1,455	2,181	637	291		4,564		7,577	-1,866	-276	-2,142
Apr	1,047		1,047	2,709	1,142	1,670	210		5,730		6,777	1,211	-3,714	-2,503
2002 Feb 6	94		94		374	334			708		802	-1,511	1,286	-225
Feb 13	413		413	1,463					1,463		1,876	-4,095	1,000	-3,095
Feb 20	214		214	1,432			582		2,014		2,228	7,053	2,000	9,053
Feb 27	307		307		727		472		1,199		1,505	-5,747		-5,747
Mar 6	345		345		365	347			712		1,057	3,462		3,462
Mar 13	200		200	1,455	1,086				2,541		2,741	-6,363		-6,363
Mar 20	275		275		730				730		1,004	2,814	-1,000	1,814
Mar 27	2,209		2,209			291	291		582		2,791	-3,267	-2,000	-5,267
Apr 3	11		11	1,342		59			1,401		1,412	6,957	-1,000	5,957
Apr 10	339		339								339	-3,785	-1,000	-4,785
Apr 17	486		486		609	1,028	151		1,788		2,273	4,727	-1,000	3,727
Apr 24	183		183	1,367	533	170			2,069		2,252	-6,998	1,000	-5,998
May 1	42		42			413	59		472		514	4,552		4,552
2002 May 2	14		14								14	-10,985		-10,985
Intermeeting Period														
Mar 18-May 2	3,320		3,320	2,709	1,142	1,960	501		6,312		9,632	-3,112	-4,000	-7,112
Memo: LEVEL (bil. \$) May 2			213.2	92.0	161.4	54.0	81.5		388.9	0.0	602.0	-16.6	19.0	2.4

Change from end-of-period to end-of-period.
 Outright purchases less outright sales (in market and with foreign accounts).
 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.

Includes redemptions (-) of Treasury and agency securities.
 RPs outstanding less matched sale-purchases.
 Original maturity of 15 days or less.
 Original maturity of 16 to 90 days.