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<sup>1</sup> 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).

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JUNE 25, 1999

# MONETARY POLICY ALTERNATIVES

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

June 25, 1999

## MONETARY POLICY ALTERNATIVES

### Recent Developments

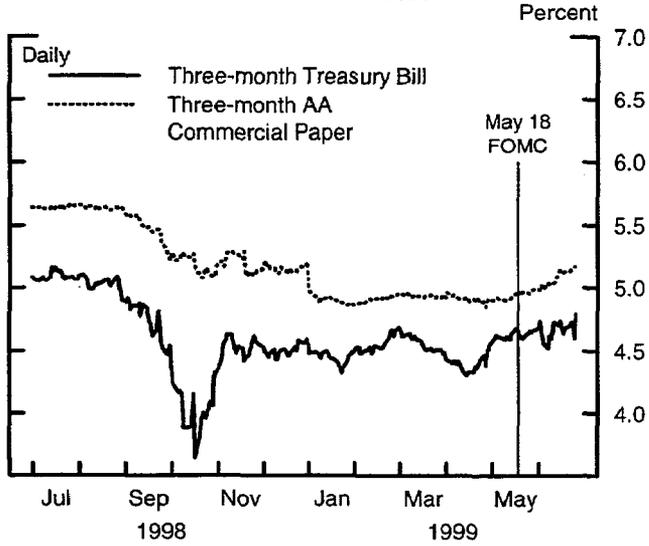
(1) The announcement of the adoption of a directive tilted toward tightening at the Committee's meeting on May 18 reinforced market expectations of firmer monetary policy. While most interest rates backed up only modestly that day, the announcement set the stage for the more pronounced increase in interest rates in subsequent weeks that was fueled by stronger-than-expected incoming data and published reports of the views of Federal Reserve officials, which boosted market participants' expectations of policy tightening (Chart 1).<sup>1</sup> The better-than-expected May CPI report on June 16 and the Chairman's testimony the next day only temporarily damped expectations of the extent of eventual policy firming. After allowing for term premiums, federal funds and Eurodollar futures rates now suggest that most market participants view a quarter-point rate hike at this meeting as virtually certain and expect a cumulative increase in the funds rate of three-quarters of a percentage point or more over the next year. Over the intermeeting period, most short-term rates have risen around 25 basis points; yields on Treasury coupon securities have increased about 25 to 40 basis points, perhaps pressured as well by a crowded calendar of upcoming agency and corporate issuance. The advance in nominal Treasury yields primarily reflected increases in forward rates at two- to five-year horizons, while longer-term forward rates rose much less. This configuration suggests that Federal Reserve policy is

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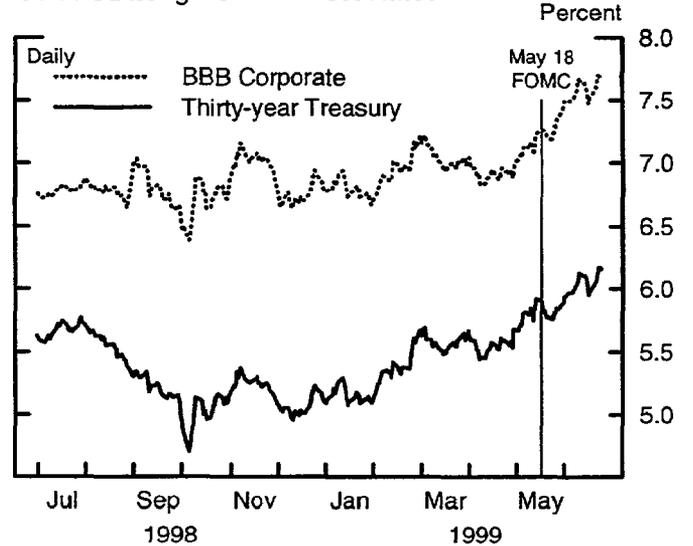
<sup>1</sup> The federal funds rate has averaged a shade under the intended rate over the intermeeting period in trading that has been somewhat less volatile than earlier this year.

Chart 1

Selected Short-Term Interest Rates

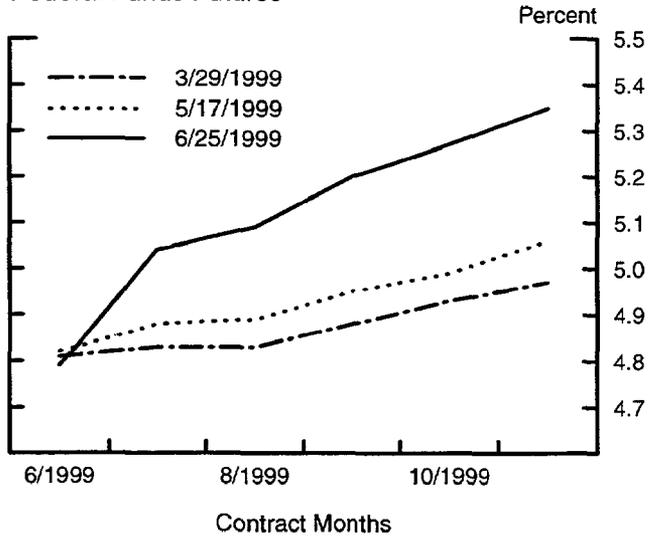


Selected Long-Term Interest Rates

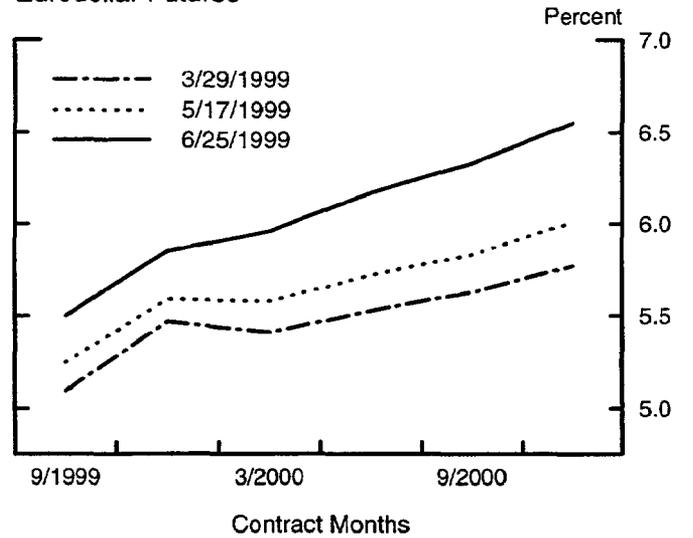


Source: Merrill Lynch

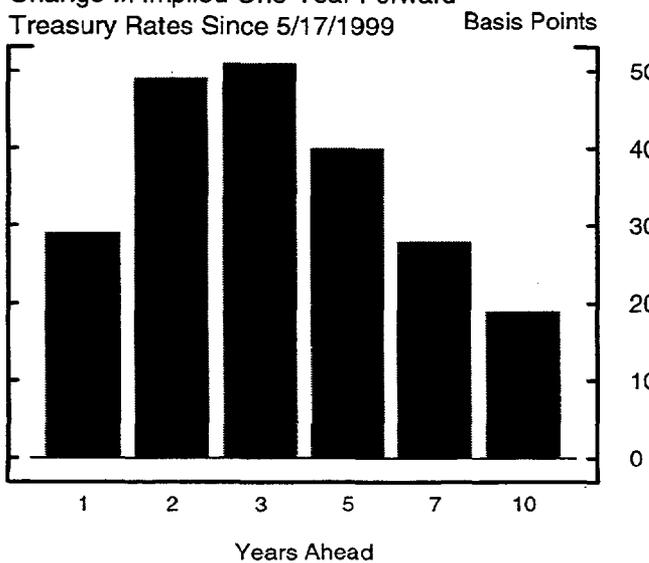
Federal Funds Futures



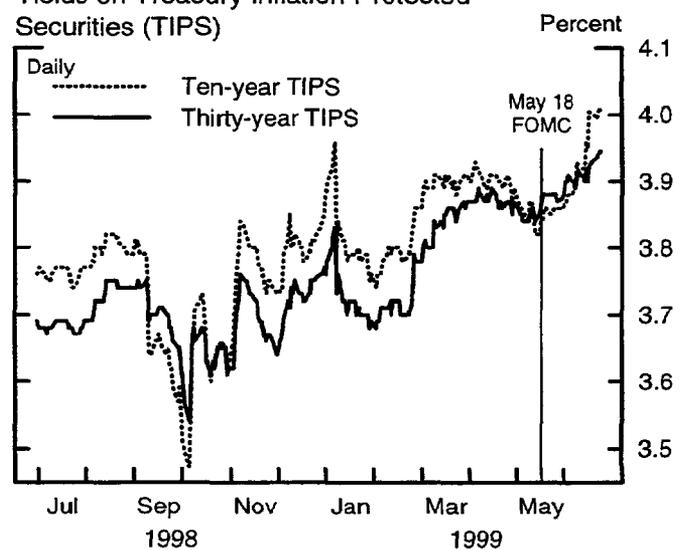
Eurodollar Futures



Change In Implied One-Year Forward Treasury Rates Since 5/17/1999



Yields on Treasury Inflation-Protected Securities (TIPS)



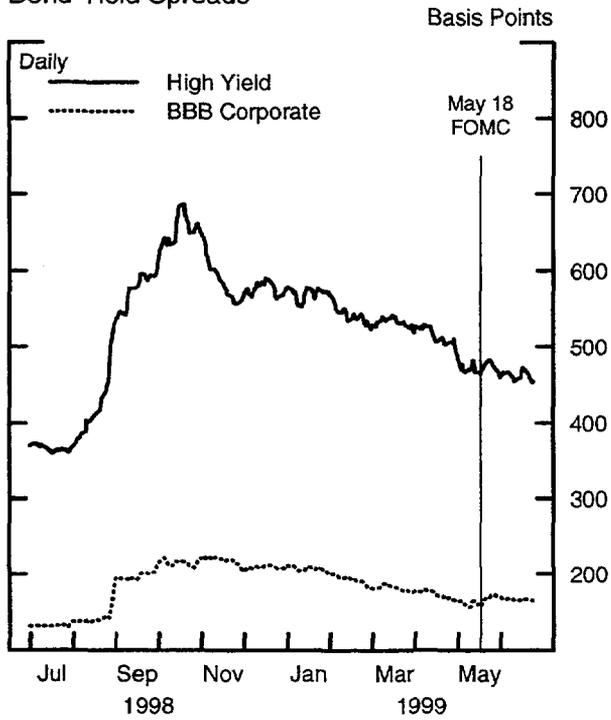
expected to push real interest rates higher over the next few years than had been expected prior to the May meeting, but perhaps not by enough to contain pressures on prices entirely. This view is supported by the fact that yields on indexed Treasury securities have gained about half as much as their nominal counterparts.

(2) The announcement of a biased directive, coming on the heels of stronger-than-expected April CPI figures the Friday before the last meeting, seemed to make market participants more cautious about taking on risk. This increased caution was evidenced by some deterioration in measures of market liquidity and a widening of risk spreads, although these effects mostly faded later in the intermeeting period (Chart 2). On balance, yield spreads on agency and investment-grade securities still are a touch wider than at the time of the May meeting. The effects of higher interest rates on stock prices were about offset by brighter second-quarter earnings prospects, and, on net, broad equity indexes are unchanged to down 3 percent.

(3) The exchange value of the dollar has changed little against an index of other major currencies over the intermeeting period. Even though U.S. interest rates rose less than those in euro-area countries, the dollar has risen about 2-1/4 percent against the euro, reflecting in part uncertainty about the attitude of the authorities owing to sometimes-conflicting public statements by officials. The Bank of England lowered its repo rate 25 basis points, responding largely to the implications of persistent strength of the pound for growth and inflation. Following that action, the dollar has appreciated 3/4 percent against the pound. In contrast, the dollar has depreciated 1-1/2 percent against the yen over the

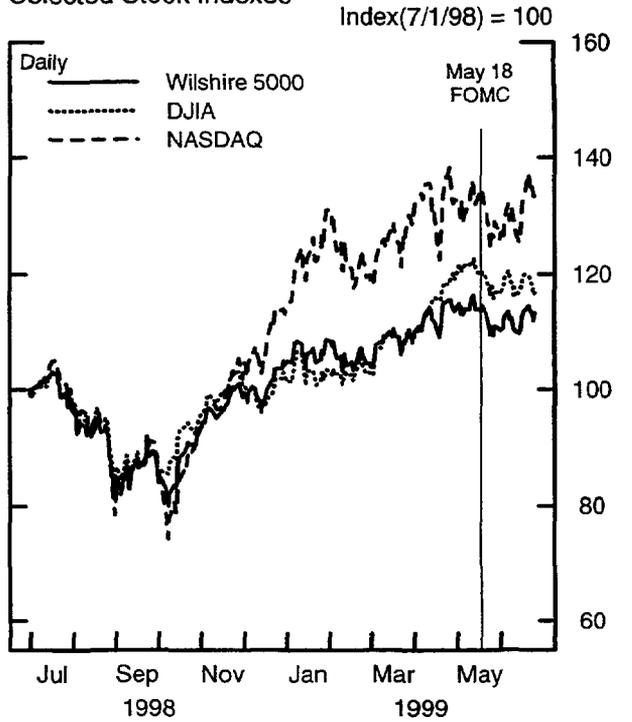
Chart 2

Bond Yield Spreads\*

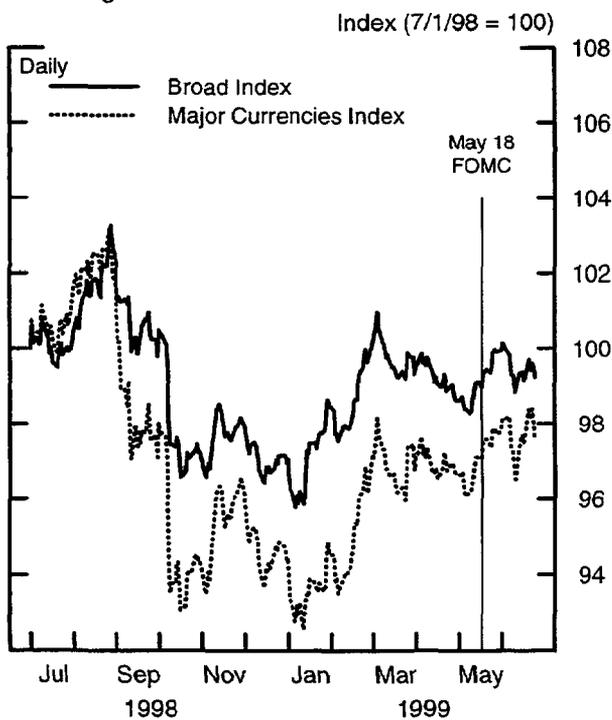


\*High yield spread is relative to the seven-year Treasury yield. BBB corporate spread is relative to the ten-year Treasury yield.

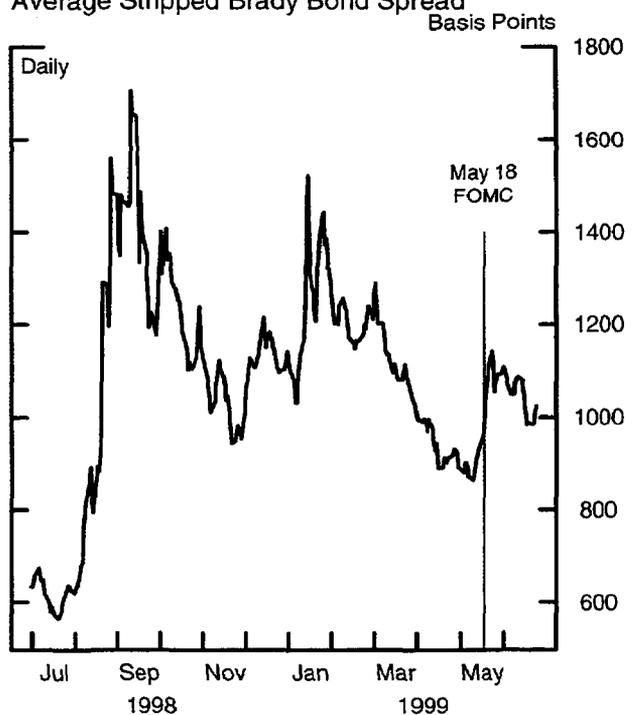
Selected Stock Indexes



Nominal Trade-Weighted Dollar Exchange Rates



Average Stripped Brady Bond Spread\*



\*J.P. Morgan Emerging Market Bond Index, an average of stripped Brady bond yield spreads over Treasuries for ten emerging market countries.

period, as yields on Japanese government debt rose sharply relative to rates on U.S. Treasuries. The rise in Japanese rates owed to perceptions of improved prospects for the Japanese economy, supported in part by the surprising strength of reported Japanese GDP in the first quarter. Monetary authorities in Japan have leaned against the rise in the foreign exchange value of the yen, intervening on four recent days in both Japan and Europe and purchasing more than \$20 billion and the equivalent of more than \$4-1/4 billion in euro.<sup>2</sup>

(4) In Latin America, financial markets have been subject to heightened stress over the intermeeting period, related only in part to market expectations of higher U.S. interest rates. Uncertainty about Argentina's longer-term commitment to its currency-board regime and concerns over the slow progress of fiscal reform in Brazil have contributed to these pressures. Stripped Brady bond spreads spiked higher in late May and early June; on balance, Brady bond spreads have increased 60 to 140 basis points from their levels in mid-May. In Argentina, domestic short-term interest rates are up 2-3/4 percentage points since early May. The Brazilian *real* has depreciated almost 7-1/2 percent against the dollar on balance, while the Mexican peso has fallen almost 1-1/2 percent. Major Latin American stock market indexes are up slightly to off 5-1/2 percent over the intermeeting period. In contrast, financial markets in emerging Asian economies have generally improved, with their currencies appreciating and share price indexes up considerably in many cases.

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

(5) Growth of the broad monetary aggregates has been volatile in recent months, reflecting in part the effects of tax-related flows on liquid deposits. Smoothing through the monthly swings, money growth appears to have moderated slightly, with M2 expanding at an average rate of about 5-1/4 percent over the four months through June, down from about 6 percent in January and February and double-digit rates late last year. The slowing earlier in the year owed to an unwinding of the heightened demand for safety and liquidity of last fall, while more recently M2 growth has been damped by a rise in its opportunity cost as market rates have increased. Through June of this year, M2 has expanded at about a 6-1/4 percent pace from the final quarter of last year, above the upper end of its 1 to 5 percent annual range. Growth in M3 has also declined this year, partly as the consequence of the behavior of M2. In addition, the sluggish expansion of depository credit since the start of the year has reduced depository institutions' issuance of managed liabilities in M3, including large time deposits and RPs. Institution-only money market funds also contributed to the slowdown in M3: These funds pay rates that are averages of recent short-term market rates, and so their relative attractiveness has diminished with the backup in market interest rates in recent months. From the fourth quarter of last year through June, M3 has grown at a rate of about 6 percent, leaving that aggregate at the upper end of its annual range.

(6) The expansion of domestic nonfinancial sector debt also has moderated a bit recently. Business borrowing appears to have fallen back a bit from its very rapid pace earlier in the year. Moreover, the uptick in rates following the May meeting appeared to redirect business credit, with bond issuance slowing, as some borrowers deferred coming to market,

and commercial paper issuance and bank lending picking up. Household debt has advanced less rapidly in recent months than early in the year, owing to a slowing in consumer credit growth. Municipal debt issuance also has dipped of late, as higher interest rates have reduced the attractiveness of the advance refunding of earlier issues. Despite the recent slowing, the debt of nonfederal sectors grew at an 8-3/4 percent annual rate from the final quarter of last year through May, up slightly relative to 1998. Paydowns of federal debt have accelerated this year, however, leaving the growth rate of total domestic nonfinancial debt from the fourth quarter of 1998 through May at 6 percent--about the same pace as last year and in the upper half of its annual range.

**MONEY, CREDIT, AND RESERVE AGGREGATES**  
(Seasonally adjusted annual percentage rates of growth)

	Apr.	May.	Jun.	1998:Q4 to Jun. <sup>2</sup>
<u>Money and Credit Aggregates</u>				
M1	6.9	-4.0	-5.0	2.0
Adjusted for sweeps	9.0	4.1	-0.7	5.5
M2	8.8	4.5	4.9	6.3
M3	8.1	4.3	4.7	5.9
Domestic nonfinancial debt	6.8	4.8	n.a.	6.0
Federal	-2.4	-5.3	n.a.	-3.1
Nonfederal	9.5	7.8	n.a.	8.8
Bank credit	1.8	2.6	8.4	0.5
Adjusted <sup>1</sup>	1.6	2.9	10.4	2.4
<u>Reserve Measures</u>				
Nonborrowed reserves	4.4	11.6	-42.1	-6.9
Total reserves	7.2	10.5	-41.9	-6.9
Adjusted for sweeps	10.8	19.4	-17.8	3.3
Monetary base	10.3	13.8	2.1	9.0
Adjusted for sweeps	10.6	14.9	2.7	9.5
Memo: (millions of dollars)				
Adjustment plus seasonal borrowing	166	127	131	--
Excess reserves	1159	1259	1209	--

NOTE: Monthly reserve measures, including excess reserves and borrowing, are calculated by prorating averages for two-week reserve maintenance periods that overlap months. Reserve data incorporate adjustments for discontinuities associated with changes in reserve requirements.

1. Adjusted to remove the effects of mark-to-market accounting rules (FIN 39 and FASB 115).

2. For nonfinancial debt and its components, 1998:Q4 to May.

## Long-Term Strategies

(7) This section uses the staff quarterly econometric model of the U.S. economy to extend the Greenbook forecast and to consider alternative monetary policies: The baseline strategy caps inflation at 2-1/2 percent as measured by the chain-weight core PCE price index, while the price stability alternative is constructed to bring this gauge of inflation down to around 3/4 percent by the middle of the next decade.<sup>3 4</sup>

(8) The Greenbook projection for this year and next shows an economy marked by several notable imbalances that shape the evolution of the economy over the next decade. One imbalance is the excess of domestic investment over domestic saving. In response to the apparent improvement in productivity trends, as well as to the partly related surge in equity prices, consumers have boosted their spending to levels that are unusually high relative to *current* income (although not to perceived *permanent* income). This low rate of saving, which implies little direct addition to wealth, together with the projection that equity prices rise less rapidly than nominal income, implies that the ratio of household net worth to GDP

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<sup>3</sup> The price stability alternative was obtained by using a Taylor rule with the target for the inflation rate assumed to be 3/4 percent rather than the 2-1/2 percent implied in the baseline. The rule was modified from the standard version by having a considerably higher response to inflation (so that inflation in the simulation is brought to the target in about seven years) and by phasing in the lower inflation target over two years to make the policy shift less abrupt. The numerical target of this “price stability” strategy approximates true stability after allowance is made for the biases produced by measurement problems.

<sup>4</sup> In the version of the model used for these simulations, expectations of inflation and other variables are formed in a forward-looking manner, but with incomplete knowledge of the structure of the economy and the intent of the policymakers. Over an intermediate term, the sacrifice ratio--the cumulative percentage point increase in the unemployment rate required to cut inflation 1 percentage point--is 2-1/2.

falls gradually over the next decade. As current income moves higher in line with the public's anticipations, saving out of that income is likely to rise gradually over time, to a level more in line with historical norms, moderating the decline in the ratio of wealth to GDP. Federal budget surpluses are assumed to remain sizable relative to nominal GDP, and the behavior of households boosts national saving, lowering the equilibrium real rate of interest over the long term.<sup>5</sup>

(9) A related imbalance is on the international side. The current account deficit has ballooned in response to strong domestic spending, weak growth abroad, and a relatively high value of the dollar. With the rest of the world called upon to finance the continuing excess of domestic spending over production, international portfolios are likely to be increasingly dominated by dollar-denominated assets. The extended forecast assumes that the discomfort implied by burgeoning dollar asset holdings in foreign portfolios, together with the downward movement of U.S. real interest rates as domestic saving increases, leads to a secular decline in the real foreign exchange value of the dollar.

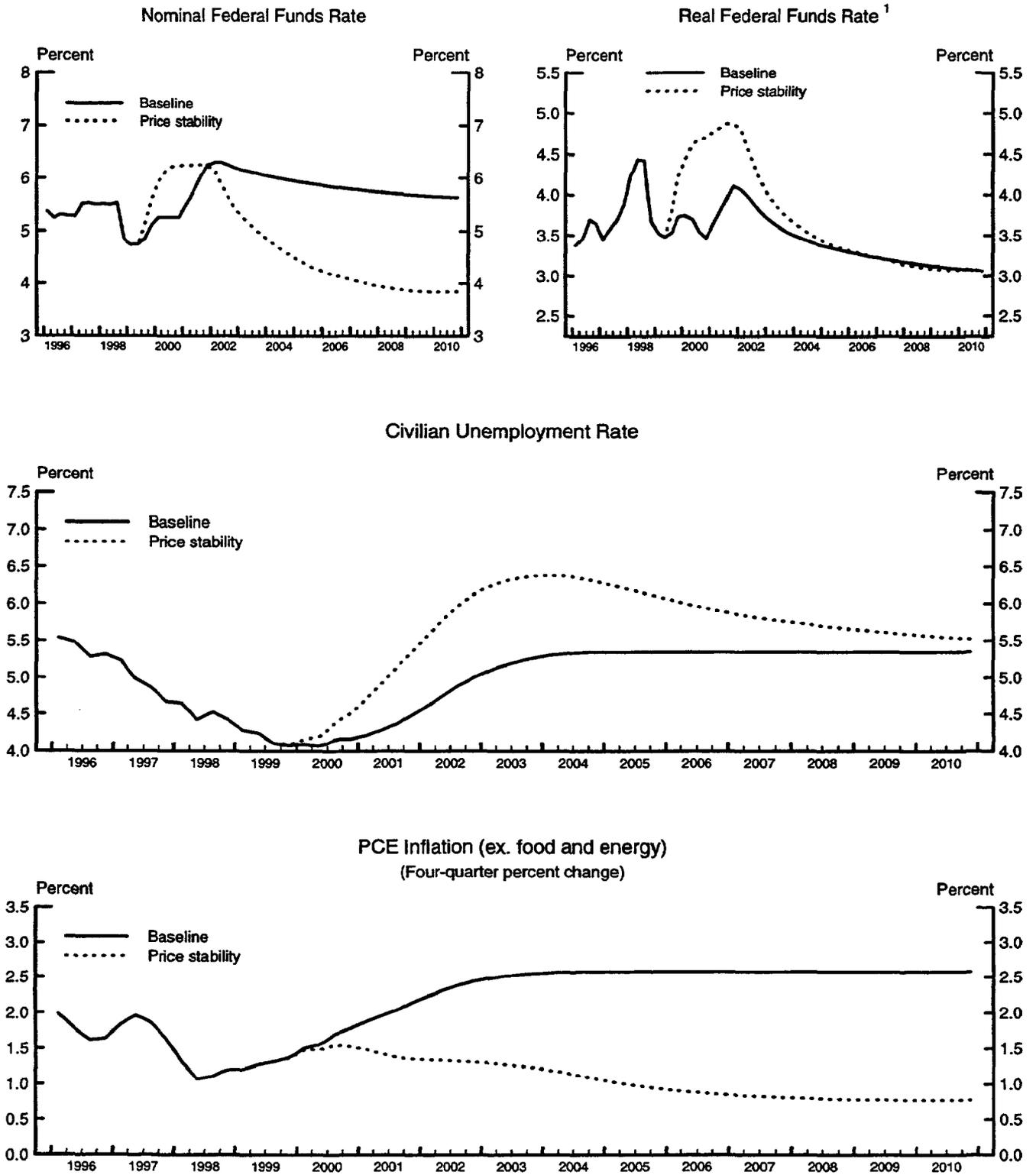
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<sup>5</sup> Also helping to reduce the equilibrium real interest rate in the long run is a moderation in the pace of business investment. Capital formation in recent years has been, and for a time going forward is likely to continue to be, boosted above its long-run trend by the desire of businesses to raise the capital-output ratio in response to a faster pace of technological progress. As this adjustment of the capital stock is completed, however, investment growth slows. In addition to lowering the equilibrium real interest rate, the slower pace of investment implies that in the later part of the extended outlook capital will grow less rapidly relative to labor (reducing the pace of capital deepening), which will in turn restrain labor productivity growth. As a result, the growth rate of potential GDP, which remains at its currently assumed rate of 3-1/4 percent per annum until the middle of the next decade, edges down a few tenths of a percent in subsequent years.

(10) Another imbalance occurs in the labor market, which in the Greenbook remains tight through the end of next year. As a consequence, inflation picks up and is poised to rise further in 2001 and beyond. In the absence of additional increases in productivity growth or of declines in relative import and commodity prices, consumer price inflation would continue to move up until the economy returns to a sustainable level of resource utilization, which for labor markets in the model is represented by a NAIRU of 5-1/4 percent.

(11) Under the **baseline** strategy, policy is assumed to tighten sufficiently to raise the unemployment rate gradually to 5-1/4 percent, thereby capping inflation at a moderate rate (shown by the solid lines in Chart 3). This action requires 100 basis points of tightening in 2001 (beyond the 50 basis points assumed in the Greenbook) and brings the nominal funds rate to 6-1/4 percent. Over the longer run, short-term interest rates decline modestly, along with the downward drift in the equilibrium rate. Under the alternative **price-stability** strategy (shown by the dotted lines in the chart), policy must create enough economic slack to bring inflation down from its current level. This entails a similar-sized increase in the nominal federal funds rate, but it is put in place much sooner so that the real funds rate rises higher and remains elevated for a more extended period. As a result, the unemployment rate peaks at almost 6-1/2 percent at the end of 2003, but thereafter drifts down to its sustainable level, as inflation settles in at the lower target rate and policy returns to a neutral stance.

Chart 3  
Alternative Strategies for Monetary Policy



1. The real federal funds rate is calculated as the quarterly nominal funds rate minus the four-quarter percent change in the PCE chain-weight price index excluding food and energy.

## Ranges for Money and Debt

(12) The table below shows staff projections for money and debt growth consistent with the Greenbook forecast for this year and next and the ranges for 1999 chosen by the Committee in February. Growth of the aggregates so far this year relative to these ranges and projected outcomes for 1999:Q4 under the staff forecast are depicted in Chart 4.

	Money and Debt Growth (percent)				
	1998 (Actual)	1998:Q4-1999:Q2 (Est./Proj.)	1999 (Projected)	2000 (Projected)	1999 Ranges
<b>M2</b>	8.5	6.5	6	5	1 to 5
<b>M3</b>	10.9	6.1	6-1/4	6	2 to 6
<b>Debt</b>	6.1	6.0	5-1/2	4-1/4	3 to 7
<b>Memo: Nom. GDP</b>	5.2	5.4	5-1/4	4-1/2	

### *Projected Money and Debt Growth*

(13) Over the first half of this year, **M2** grew about 1 percentage point faster at an annual rate than did nominal GDP, extending the decline in velocity that has been evident since mid-1997. The factors behind that decrease over the past two years are not entirely clear. As the lower two panels of Chart 5 suggest, velocity, after shifting higher over the early 1990s, appears to have responded to movements in the standard measure of opportunity cost (the three-month Treasury bill rate minus the average rate earned on M2 assets) in a fashion similar to its behavior during the 1960s, 1970s, and 1980s. Nonetheless,

Chart 4  
 Ranges for Money and Debt Aggregates

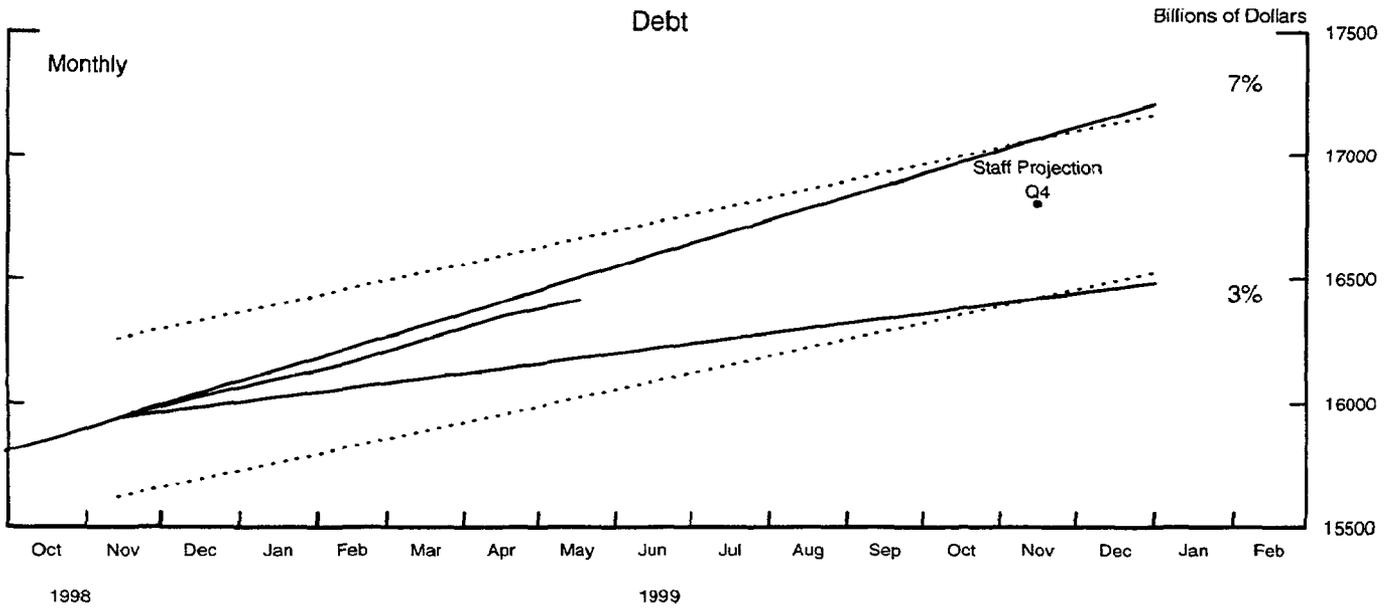
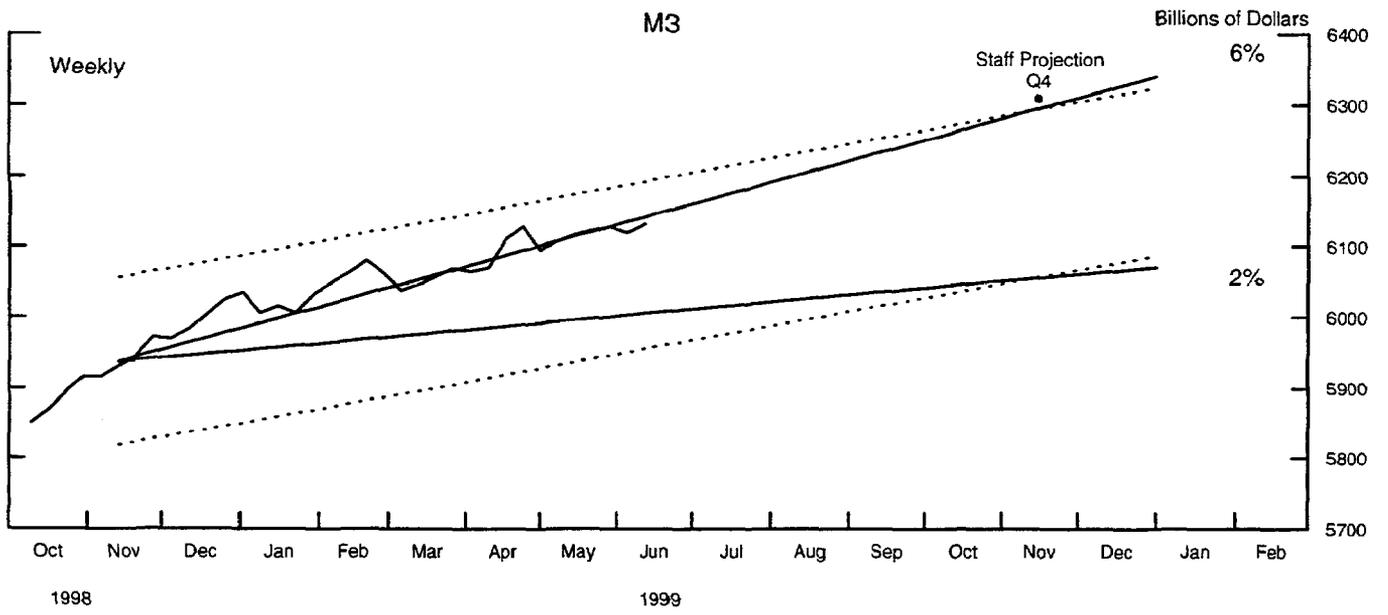
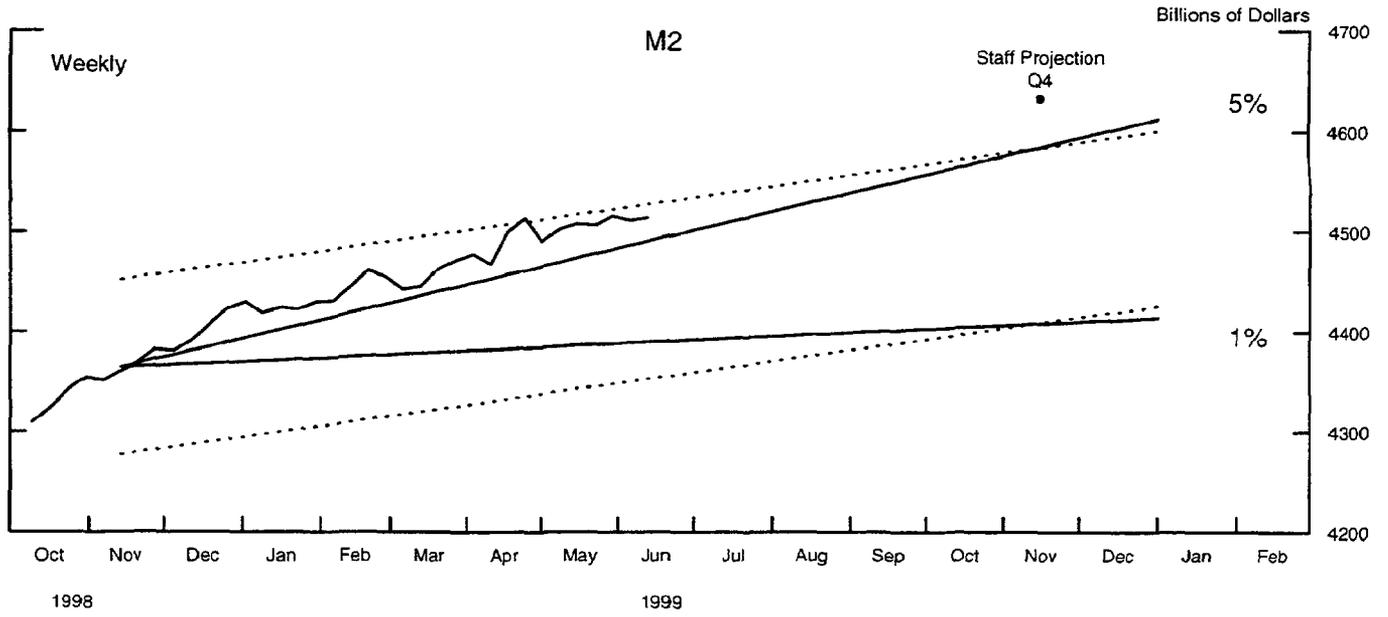
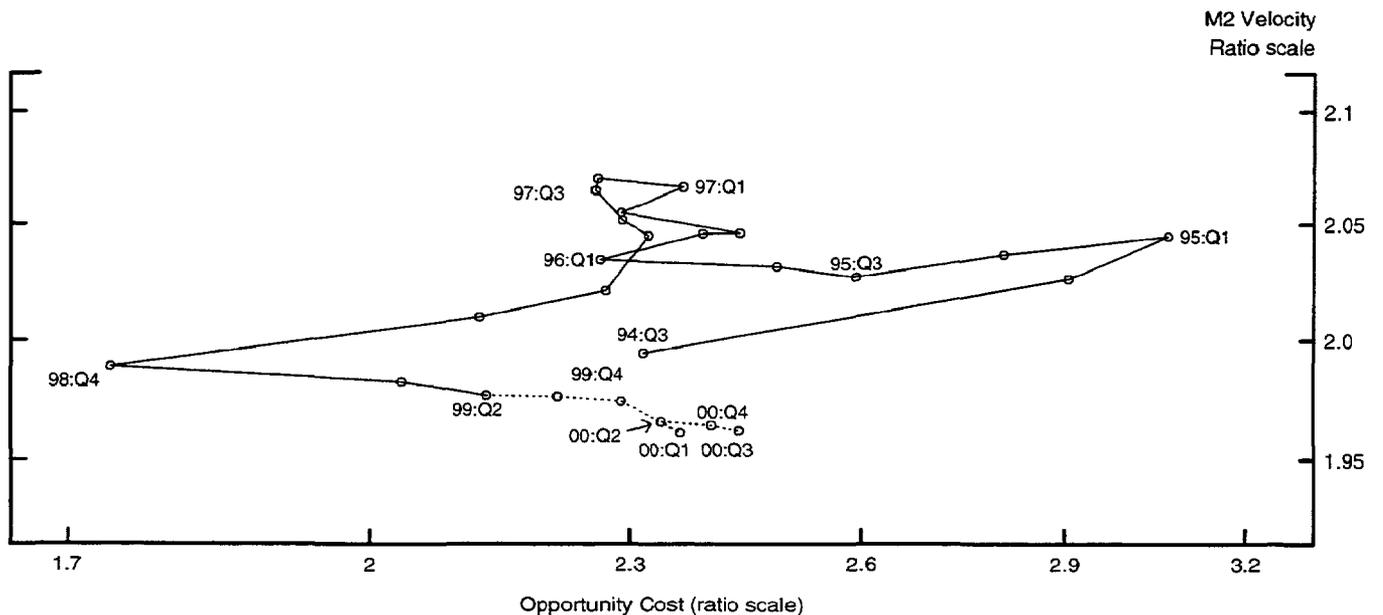
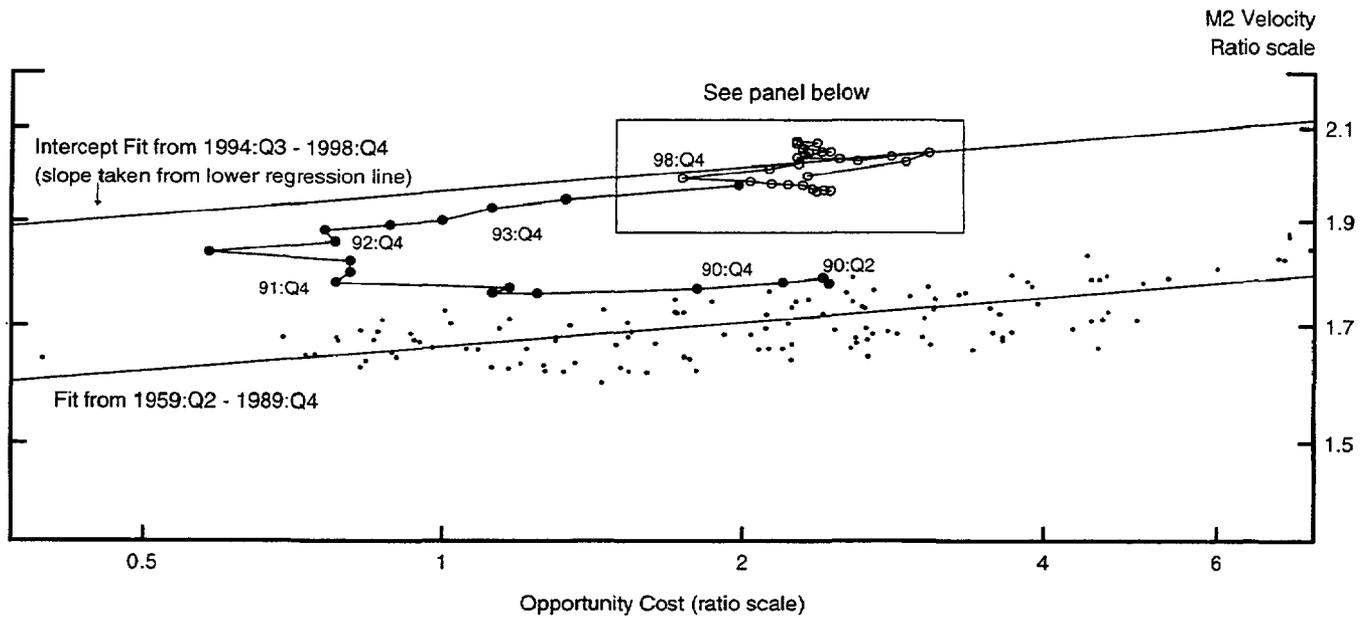
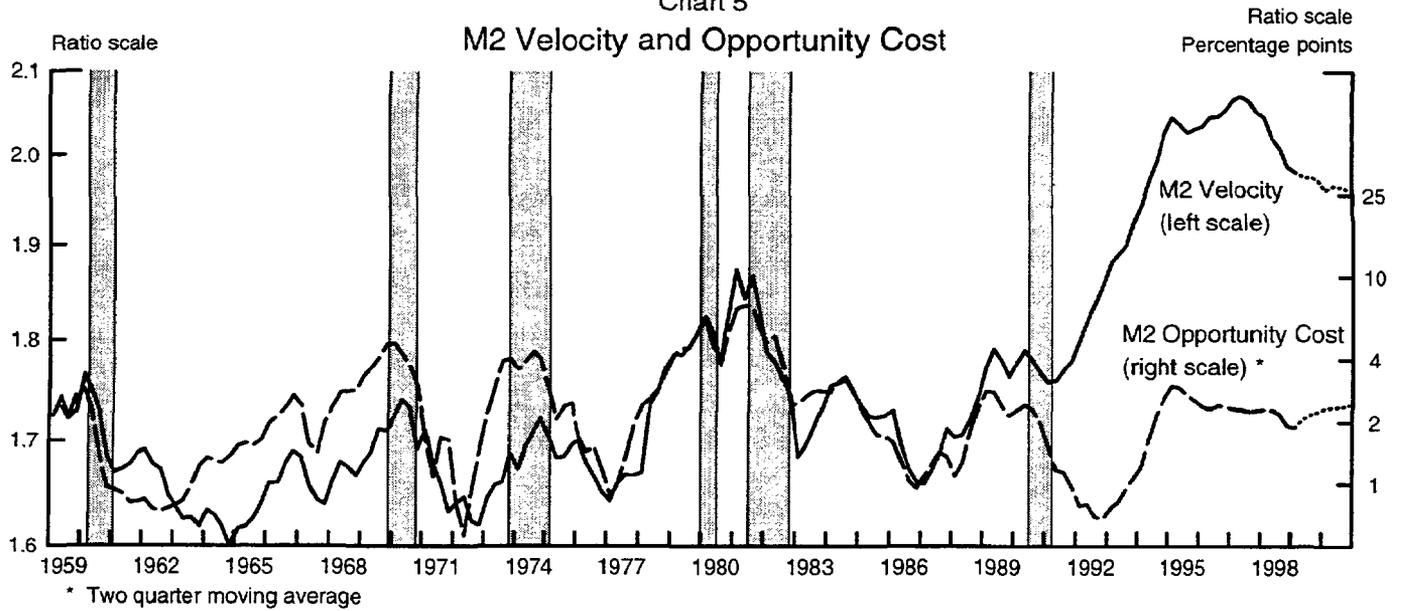


Chart 5  
M2 Velocity and Opportunity Cost



velocity continued to drift higher until mid-1997 and since then has dropped considerably despite the fact that the standard measure of opportunity cost has changed little on balance in the last two years. Much of the recent decline in velocity could reflect the substantial rise in wealth relative to income in recent years: Investors may have been attempting to rebalance their portfolios by reallocating some of their wealth from equities to assets included in M2. The staff projects that velocity will continue to fall over the balance of 1999 and during 2000, albeit only marginally, as the presumed effects on money demand of the previous build-up in wealth begin to fade and as M2's opportunity cost increases in response to the monetary policy tightening assumed for this year. M2 growth is projected to slow to 5-1/4 percent over the balance of 1999, bringing growth for the year to 6 percent. Next year, growth is expected to moderate further to 5 percent as expansion of nominal income slows.<sup>6</sup>

(14) **M3** is forecast to increase 6-1/4 percent in 1999, its slowest pace since 1995 and well below the nearly 11 percent advance posted in 1998. The non-M2 component of M3 should decelerate sharply from last year's rate, partly owing to reduced funding needs of depository institutions. Adjusted for mark-to-market effects, bank credit growth is

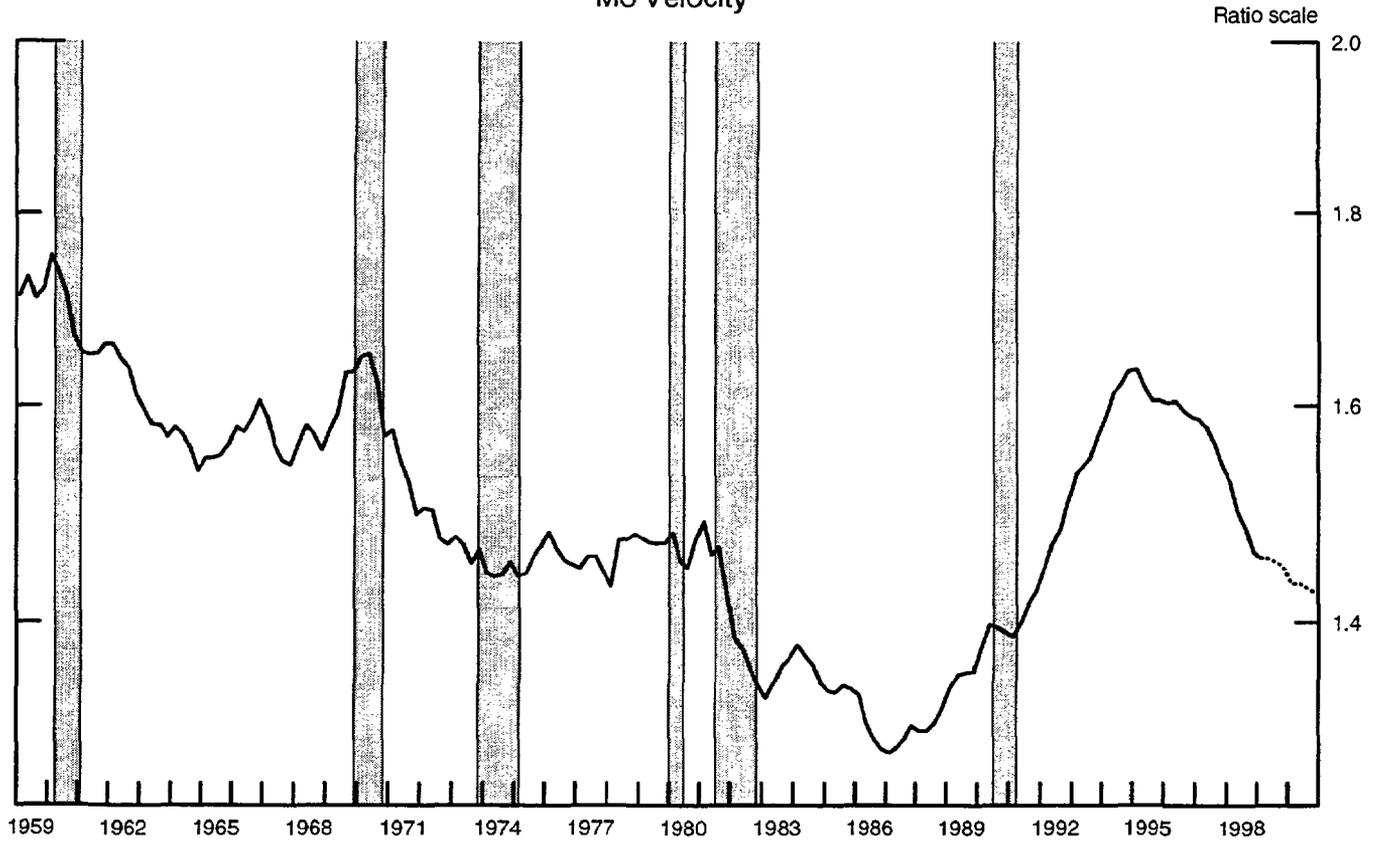
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<sup>6</sup>The public, concerned about the century date change, is projected to shift funds into currency and deposits from obligations that are not federally insured, thereby boosting the growth of M2 and M3 by 1/4 percentage point on balance this year relative to nominal income. As noted in the Greenbook, income growth is also expected to be lifted slightly by inventory-building and purchases of consumer goods in advance of the century date change, which should also buoy money demand. Any fillip to monetary growth associated with the century date change would be reversed next year. Obviously, substantial uncertainty attends these assumptions.

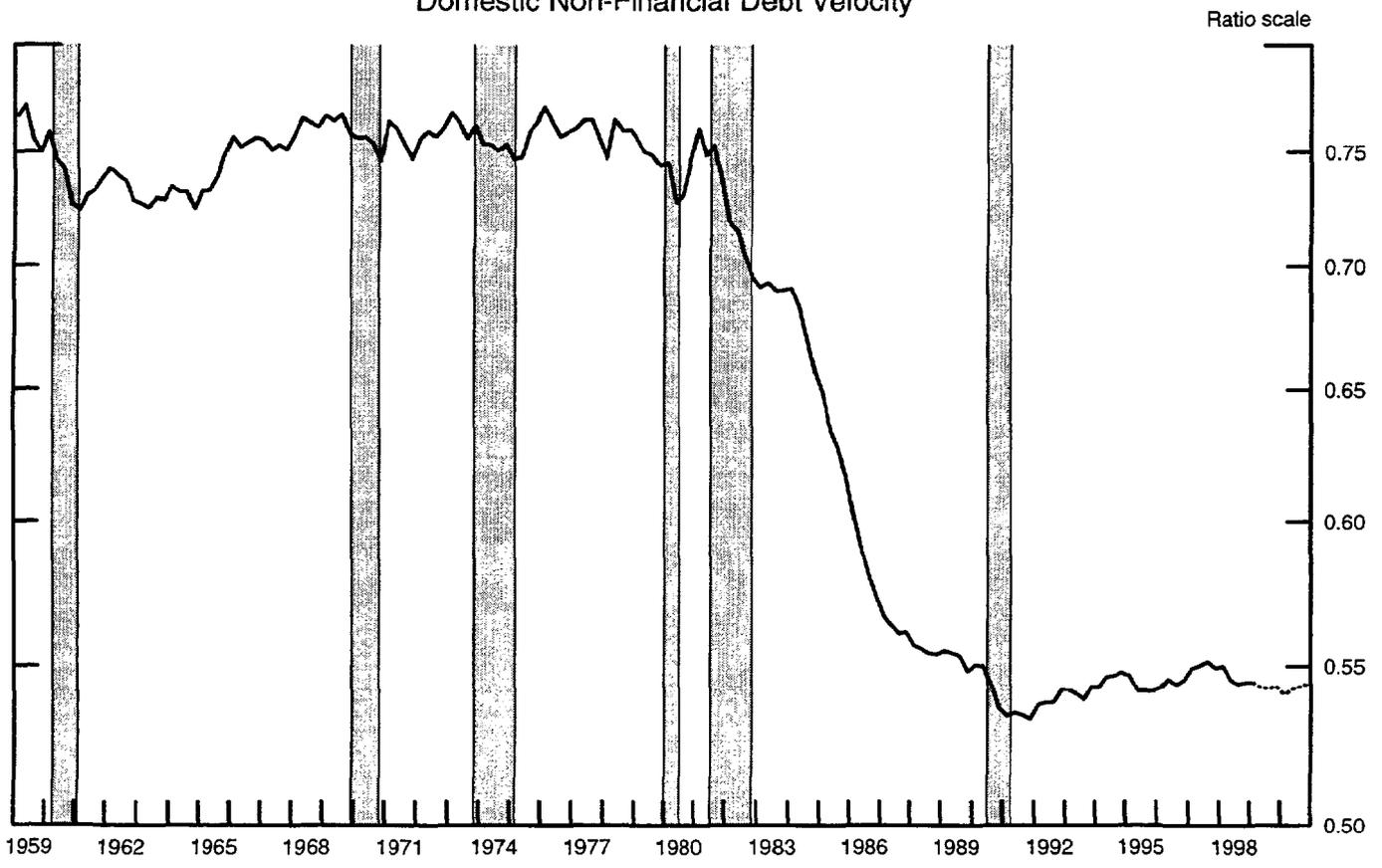
projected to plunge to 3-1/4 percent this year from 10-1/4 percent in 1998, largely reflecting an unwinding of the bulge related to the market turmoil in the latter part of 1998. The slack demands for bank credit this year translate into very subdued issuance by banks of managed liabilities included in M3, such as large time deposits. M3 also decelerates because the expansion of institutional money market mutual funds this year is lagging behind the blistering pace of 1998, perhaps as more corporations complete their shift toward the outsourcing of corporate cash management and as the effects of last year's monetary easings wear off. Next year, the expansion of M3 is seen as declining slightly further to 6 percent. Although bank funding needs should be boosted a little by a modest rebound in bank credit growth, the deceleration in M2 should hold down M3 growth. With M3 growth still outstripping that of nominal GDP over both 1999 and 2000, V3 is projected to extend its secular decline (Chart 6).

(15) In the staff forecast, **domestic nonfinancial sector debt** expands 5-1/2 percent in 1999 and 4-1/4 percent in 2000, about in line with nominal income. In both years, debt growth is accounted for by the nonfederal sectors, whose debt is expected to increase about 8 percent this year and about 7 percent next year. Increasing federal surpluses imply that the government is a growing net supplier of funds to credit markets, facilitating household and business borrowing and spending. Nonetheless, most credit supply conditions, as measured by interest rate spreads in open markets and lending terms and standards of banks, are expected to remain around current levels, which are a bit tighter than one year ago, imparting little, if any, additional restraint on spending.

Chart 6  
M3 Velocity



Domestic Non-Financial Debt Velocity



## *Ranges for Money and Debt*

(16) In February, the Committee chose ranges of 1 to 5 percent for M2, 2 to 6 percent for M3, and 3 to 7 percent for debt for 1999. The Committee established those ranges for the monetary aggregates--the same ranges that have been in place since 1995--to provide benchmarks for money growth consistent with long-term price stability and historically typical velocity trends. Thus, the ranges did not necessarily reflect the Committee's expectations for actual money growth over 1999. Indeed, the staff's projections for monetary growth exceeded the upper ends of the selected ranges, and those projections were based on a forecast of nominal GDP growth that was slower than those of most FOMC members.<sup>7</sup> The predictability of the velocity of the monetary aggregates does not appear to have improved markedly in the last two years. After two years of relatively small errors in annual staff projections, V2 fell about 3 percentage points more in 1998 than the staff had projected at the beginning of that year; relatively little of that error can be explained by unforeseen movements in opportunity costs prompted by the Committee's policy actions in the second half of the year. As noted above, the velocity of M2 has continued to decline in 1999, albeit at a slower pace than in 1998, and, based on the Greenbook GDP forecast, the rate of decline in velocity over the first half of this year appears to have been about 1-1/2 percentage points less than forecast by the staff this January.

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<sup>7</sup> The February Humphrey-Hawkins report noted the possibility that the aggregates could overshoot their ranges this year.

(17) The table below displays two sets of ranges for money and debt for 1999 and 2000, along with staff projections. Given the continued uncertainty regarding appropriate rates of money growth and relatively small errors in forecasting debt growth in recent years, the alternatives are constructed under the presumption that the Committee will continue with its current approach to the ranges--that is, ranges for money keyed to the Federal Reserve's price stability objective and the range for debt aligned with its expected growth.

**Staff Projections and Alternative Money and Debt Ranges  
(Q4 to Q4, percent)**

	Staff Projections		Alternative I		Alternative II	
	1999	2000	1999 (current)	2000	1999	2000
<b>M2</b>	6	5	1 to 5	1 to 5	2 to 6	2 to 6
<b>M3</b>	6-1/4	6	2 to 6	2 to 6	3 to 7	3 to 7
<b>Debt</b>	5-1/2	4-1/4	3 to 7	2 to 6	3 to 7	2 to 6

(18) The Committee's selection of ranges for M2 and M3 may be influenced by the possibility that underlying trends in productivity and potential GDP growth have strengthened appreciably since the adoption of these ranges and their underlying rationale in the mid-1990s. If the Committee were confident that the faster trend in potential output would persist, it might choose to increase the monetary ranges, as discussed below. If not, it presumably would opt to maintain the current monetary ranges for 1999 and carry them over to 2000, as in **Alternative I**. Those ranges would be consistent with an expectation of potential real GDP growth of 2-1/2 percent, the staff estimate of a 1/2 percentage point

upward bias in inflation calculated using the GDP deflator, no true inflation, and the assumptions that V2 would be flat and V3 would decline at 1 percent per year, their long-term historical tendencies. The July Humphrey-Hawkins report would need to note that the monetary aggregates could well overshoot their ranges again during 1999 and very possibly in 2000.

(19) If the Committee believed that long-term productivity trends had improved significantly, price stability and historically typical velocity trends would involve more rapid rates of monetary growth than implied by the midpoint of the existing ranges. For example, allowing for the 3-1/4 percent growth in potential real GDP in the Greenbook forecast, the 1/2 percentage point bias in inflation measured by the GDP deflator, and a very low rate (1/4 percent) of true inflation would call for M2 and M3 ranges centered on 4 and 5 percent, respectively, 1 percentage point higher than their current ranges. **Alternative II** gives such ranges.<sup>8</sup>

(20) The Committee has not employed a price-stability rationale in choosing ranges for the debt of domestic nonfinancial sectors but instead has based ranges on forecasts of actual growth. The current 3 to 7 percent range remains consistent with this approach for 1999. However, centering the range for 2000 approximately on the staff forecast would imply selecting a range of 2 to 6 percent. As it happens, a range of 2 to 6

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<sup>8</sup> The Committee might also adjust the monetary ranges upward, as in Alternative II, if it wished to shift away from its current, long-run price-stability rationale and toward ranges based on forecasts in 2000, perhaps because it believed that the period of especially large disturbances to velocity was coming to an end. Staff forecasts suggest that an upward adjustment probably would be necessary to center the ranges on expected monetary growth.

percent would also be centered on the 4 percent expected rate of growth of debt under assumptions of increased productivity growth, price stability, and the flat trend of velocity that has prevailed over most of the postwar period.

## Short-Run Policy Alternatives

(21) The general contours of the staff forecast have not changed much from the May Greenbook. Smoothing through turn-of-the-year effects, output increases on average over the next 1-1/2 years at a rate a little below the growth of its potential, down noticeably from the pace of the last few years. In the near term, financial conditions act as more of a restraint on demand than was assumed in the last forecast, reflecting both recent market developments and an assumption that tightening by the Committee will take place sooner than in the previous forecast. Financial conditions remain roughly unchanged over the forecast period--bond yields, equity prices, and the dollar fluctuate near current levels--which contributes to the maintenance of economic growth near trend. The current tautness of labor markets persists, and core inflation begins to edge higher. Core PCE price inflation moves from a little below 1-1/2 percent over 1999 to a little above 1-3/4 percent over 2000, and core CPI inflation from just above 2 percent to 2-1/2 percent--in both cases revised up slightly from the May Greenbook. Pressures on compensation are expected to be a bit stronger in this forecast, based on a slightly firmer tone to recent wage and benefits reports.

(22) The Committee might nonetheless favor the unchanged federal funds rate of **alternative B** if it did not view the prospects for a rise in inflation as having increased since the last meeting, when it saw the risks as tilted, but not enough to tighten. The staff sees the growth of GDP slowing in the second and third quarters to about the pace of its potential. This slowing presumably does not owe in any appreciable way to the firming of

financial conditions over May and June and could reflect more fundamental tendencies of aggregate demand. If so, a partial reversal of that financial market firming, which would occur under this alternative, would not lead to tauter labor markets, especially if continued rapid growth in productivity were viewed as a reasonable prospect. Furthermore, CPI data that have become available since the last Committee meeting have extended the downward trend in the twelve-month change in core prices, underlining uncertainties about the supply side of the economy. In these circumstances, before tightening policy, the Committee may want to see more concrete evidence that the economy was growing faster than its potential or that upward pressures in costs and prices were emerging.

(23) A decision to leave the federal funds rate unchanged would come as a surprise to market participants and prompt a reassessment of the Federal Reserve's strategy and tactics. Interest rates would decline some and the dollar would drop on foreign exchange markets, although the extent of the declines could be limited by expectations that a tightening may not be far off, especially if market participants were to believe that the Committee's directive retained the tilt announced in May. Still, the hesitancy of the Committee to tighten at this meeting would signal lessened concern about inflation prospects than the market has inferred from announcements and statements and would suggest a less steep trajectory for short-term rates going forward. Equity prices might be boosted for a while by declines in interest rates, but they could reverse any gains if,

consistent with the staff forecast, news on earnings proved to be disappointing in coming quarters.

(24) The Committee might choose the 25 basis-point increase in the federal funds rate under **alternative C** if it agreed with the staff's forecast that the risks were decidedly on the side of an upward tilt to inflation and wished to take preemptive action now. Although inflation remains subdued, as yet signs that economic expansion will moderate to a pace that will avoid added strains in labor markets are tentative. With foreign economies continuing to recover and the real federal funds rate appreciably below its level of a year ago, the Committee may desire some added assurance that the economy will slow to trend. Validating at least the initial step of the sequence of expected policy moves now embedded in financial prices would help to preserve the recent firming in financial conditions. Grounds for tightening would be even stronger if the Committee saw, as the staff does, the unchanged unemployment rate in the Greenbook forecast as too low to forestall an upward trend in inflation. The Committee, in this case, might even want to consider a 50 basis point firming; in the extended baseline strategy, a 150 basis point tightening over the next three years is needed to cap PCE inflation at 2-1/2 percent.

(25) Although a 25 basis-point firming is built into prices, financial markets might still react to a tightening move of this magnitude. The fluctuations in yields of the past few weeks have demonstrated that financial markets are especially sensitive to perceptions of Federal Reserve intentions, and the near-term reaction to alternative C will depend on the

market's interpretation of the announcement together with the choice of the tilt of the directive. If the wording of the announcement suggested that the Committee was less concerned about inflationary pressures than market participants have come to believe--and therefore that the extent of policy firming in coming quarters might be less than now anticipated--intermediate- and longer-term interest rates could decline some, perhaps reversing a significant portion of the run-up over the past week. In this case, the dollar could weaken some and equity markets could turn up. If, instead, the announcement suggested serious concern about inflation risks, market participants could expect a more rapid or protracted subsequent series of moves. In this case, interest rates and the foreign exchange value of the dollar could rise a good bit, and stocks and emerging market debt could come under selling pressure. While market talk that the Committee might tighten by 50 basis points at this meeting has recently surfaced, such an action would nonetheless come as a considerable surprise. Price movements would likely be outsized, though a clear indication that the Committee would be on hold for some time could limit the response.

## Directive Language

(26) Presented below for the members' consideration is draft wording relating to the Committee's ranges for the aggregates in 1999 and 2000 and the operational paragraph for the intermeeting period.

### 1999-2000 RANGES

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. In furtherance of these objectives, the Committee REAFFIRMED at THIS its meeting THE RANGES IT HAD ESTABLISHED in February ~~established ranges~~ for growth of M2 and M3 of 1 to 5 percent and 2 to 6 percent respectively, measured from the fourth quarter of 1998 to the fourth quarter of 1999. [IN FURTHERANCE OF THESE OBJECTIVES, THE COMMITTEE AT THIS MEETING RAISED/LOWERED THE RANGES IT HAD ESTABLISHED IN FEBRUARY FOR GROWTH OF M2 AND M3 TO RANGES OF \_\_\_ TO \_\_\_ PERCENT AND \_\_\_ TO \_\_\_ PERCENT RESPECTIVELY, MEASURED FROM THE FOURTH QUARTER OF 1998 TO THE FOURTH QUARTER OF 1999.] The range for growth of total domestic nonfinancial debt was MAINTAINED set at 3 to 7 percent (RAISED/LOWERED TO \_\_\_ TO \_\_\_ PERCENT) for the year.

FOR 2000, THE COMMITTEE AGREED ON A TENTATIVE BASIS TO SET THE SAME RANGES FOR GROWTH OF THE MONETARY

AGGREGATES AND DEBT, MEASURED FROM THE FOURTH QUARTER OF 1999 TO THE FOURTH QUARTER OF 2000. [FOR 2000, THE COMMITTEE AGREED ON TENTATIVE RANGES FOR MONETARY GROWTH, MEASURED FROM THE FOURTH QUARTER OF 1999 TO THE FOURTH QUARTER OF 2000, OF \_\_\_ TO \_\_\_ PERCENT FOR M2 AND \_\_\_ TO \_\_\_ PERCENT FOR M3. THE COMMITTEE PROVISIONALLY SET THE ASSOCIATED RANGE FOR GROWTH OF TOTAL DOMESTIC NONFINANCIAL DEBT AT \_\_\_ TO \_\_\_ PERCENT FOR 2000.] The behavior of the monetary aggregates will continue to be evaluated in the light of progress toward price level stability, movements in their velocities, and developments in the economy and financial markets.

#### **OPERATIONAL PARAGRAPH**

To promote the Committee's long-run objectives of price stability and sustainable economic growth, the Committee in the immediate future seeks conditions in reserve markets consistent with maintaining/INCREASING/DECREASING the federal funds rate at/TO an average of around \_\_\_  $4\frac{3}{4}$  percent. In view of the evidence currently available, the Committee believes that prospective developments are [EQUALLY LIKELY TO WARRANT AN INCREASE OR A DECREASE] more likely to warrant an increase/A DECREASE than a decrease /AN INCREASE in the federal funds rate operating objective during the intermeeting period.

Alternative Growth Rates for Key Monetary and Credit Aggregates

	M2		M3		Debt
	Alt. B	Alt. C	Alt. B	Alt. C	All Alternatives
<b>Monthly Growth Rates</b>					
Jun-99	4.9	4.9	4.7	4.7	4.5
Jul-99	4.9	4.5	5.8	5.6	4.7
Aug-99	4.9	4.1	5.9	5.5	5.7
Sep-99	5.3	4.5	6.2	5.8	4.5
Oct-99	6.6	5.9	7.0	6.7	4.1
Nov-99	6.9	6.4	7.4	7.2	5.5
Dec-99	7.9	7.5	8.0	7.8	3.6
<b>Quarterly Averages</b>					
1998 Q4	11.0	11.0	12.8	12.8	6.3
1999 Q1	7.2	7.2	7.3	7.3	5.9
1999 Q2	5.7	5.7	4.8	4.8	6.0
1999 Q3	4.9	4.5	5.5	5.3	4.9
1999 Q4	6.4	5.7	6.9	6.6	4.7
<b>Growth Rate</b>					
From	To				
Jun-99	Dec-99		6.2	5.5	4.7
Jun-99	1999 Q4		5.8	5.2	4.8
1998 Q4	May-99		6.5	6.5	6.0
1998 Q4	Jun-99		6.3	6.3	5.8
1998 Q4	Dec-99		6.3	6.0	5.4
1997 Q4	1998 Q4		8.5	8.5	6.1
1998 Q4	1999 Q2		6.5	6.5	6.0
1999 Q2	1999 Q4		5.7	5.1	4.8
1998 Q4	1999 Q4		6.2	5.9	5.4
1999 Annual Ranges:			1.0 to 5.0	2.0 to 6.0	3.0 to 7.0

## Appendix A

### ADOPTED LONGER-RUN RANGES FOR THE MONETARY AND CREDIT AGGREGATES

(percent annual rates)

	M1		M2		M3		Domestic Non-financial Debt <sup>1</sup>	
	Range	(Actual)	Range	(Actual)	Range	(Actual)	Range	(Actual)
QIV 1979 - QIV 1980	4 - 6.5	(7.3) <sup>2,3</sup>	6 - 9	(9.8)	6.5 - 9.5	(9.9)	6 - 9	(7.9)
QIV 1980 - QIV 1981	3.5 - 6	(2.3) <sup>2,4</sup>	6 - 9	(9.4)	6.5 - 9.5	(11.4)	6 - 9	(8.8) <sup>5</sup>
QIV 1981 - QIV 1982	2.5 - 5.5	(8.5) <sup>2</sup>	6 - 9	(9.2)	6.5 - 9.5	(10.1)	6 - 9 <sup>6</sup>	(7.1) <sup>5</sup>
QIV 1982 - QIV 1983	5 - 9 <sup>7</sup>	(7.2)	7 - 10 <sup>8</sup>	(8.3)	6.5 - 9.5	(9.7)	8.5 - 11.5	(10.5)
QIV 1983 - QIV 1984	4 - 8	(5.2)	6 - 9	(7.7)	6 - 9	(10.5)	8 - 11	(13.4)
QIV 1984 - QIV 1985	3 - 8 <sup>9</sup>	(12.7)	6 - 9	(8.6)	6 - 9.5	(7.4)	9 - 12	(13.5)
QIV 1985 - QIV 1986	3 - 8	(15.2)	6 - 9	(8.9)	6 - 9	(8.8)	8 - 11	(12.9)
QIV 1986 - QIV 1987	n.s. <sup>10</sup>	(6.2)	5.5 - 8.5	(4.0)	5.5 - 8.5	(5.4)	8 - 11	(9.6)
QIV 1987 - QIV 1988	n.s.	(4.3)	4 - 8	(5.3)	4 - 8	(6.2)	7 - 11	(8.7)
QIV 1988 - QIV 1989	n.s.	(0.6)	3 - 7	(4.6)	3.5 - 7.5	(3.3)	6.5 - 10.5	(8.1)
QIV 1989 - QIV 1990	n.s.	(4.2)	3 - 7	(3.9)	1 - 5 <sup>11</sup>	(1.8)	5 - 9	(6.9)
QIV 1990 - QIV 1991	n.s.	(8.0)	2.5 - 6.5	(3.1)	1 - 5	(1.3)	4.5 - 8.5	(4.5)
QIV 1991 - QIV 1992	n.s.	(14.3)	2.5 - 6.5	(1.9)	1 - 5	(0.5)	4.5 - 8.5	(4.6)
QIV 1992 - QIV 1993	n.s.	(10.5)	1 - 5 <sup>12</sup>	(1.4)	0 - 4 <sup>12</sup>	(0.6)	4 - 8 <sup>12</sup>	(4.9)
QIV 1993 - QIV 1994	n.s.	(2.3)	1 - 5	(1.0)	0 - 4	(1.4)	4 - 8	(5.3)
QIV 1994 - QIV 1995	n.s.	(-1.8)	1 - 5	(4.2)	2 - 6 <sup>13</sup>	(6.1)	3 - 7	(5.3)
QIV 1995 - QIV 1996	n.s.	(-4.6)	1 - 5	(4.6)	2 - 6	(6.8)	3 - 7	(5.0)
QIV 1996 - QIV 1997	n.s.	(-1.2)	1 - 5	(5.6)	2 - 6	(8.7)	3 - 7	(4.7)
QIV 1997 - QIV 1998	n.s.	(1.8)	1 - 5	(8.5)	2 - 6	(11.0)	3 - 7	(6.3)
QIV 1998 - QIV 1999 <sup>14</sup>	n.s.	(2.0)	1 - 5	(6.3)	2 - 6	(5.9)	3 - 7	(6.0)

**NOTE:** Numbers in parentheses are actual growth rates as reported at end of policy period in February Monetary Policy Report to Congress. Subsequent revisions to historical data (not reflected above) have altered growth rates by up to a few tenths of a percent.

n.s. -- not specified.

Footnotes on following page

1. Targets are for bank credit until 1983; from 1983 onward targets are for domestic nonfinancial sector debt.
2. The figures shown reflect target and actual growth of M1-B in 1980 and shift-adjusted M1-B in 1981. M1-B was relabelled M1 in January 1982. The targeted growth for M1-A was 3-1/2 to 6 percent in 1980 (actual growth was 5.0 percent); in 1981 targeted growth for shift-adjusted M1-A was 3 to 5-1/2 percent (actual growth was 1.3 percent).
3. When these ranges were set, shifts into other checkable deposits in 1980 were expected to have only a limited effect on growth of M1-A and M1-B. As the year progressed, however, banks offered other checkable deposits more actively, and more funds than expected were directed to these accounts. Such shifts are estimated to have decreased M1-A growth and increased M1-B growth each by at least 1/2 percentage point more than had been anticipated.
4. Adjusted for the effects of shifts out of demand deposits and savings deposits. At the February FOMC meeting, the target ranges for observed M1-A and M1-B in 1981 on an unadjusted basis, expected to be consistent with the adjusted ranges, were -(4-1/2) to -2 and 6 to 8-1/2 percent, respectively. Actual M1-B growth (not shift adjusted) was 5.0 percent.
5. Adjusted for shifts of assets from domestic banking offices to International Banking Facilities.
6. Range for bank credit is annualized growth from the December 1981 - January 1982 average level through the fourth quarter of 1982.
7. Base period, adopted at the July 1983 FOMC meeting, is 1983 QII. At the February 1983 meeting, the FOMC had adopted a 1982 QIV to 1983 QIV target range for M1 of 4 to 8 percent.
8. Base period is the February-March 1983 average.
9. Base period, adopted at the July 1985 FOMC meeting, is 1985 QII. At the February 1983 meeting, the FOMC had adopted a 1984 QIV to 1985 QIV target range for M1 of 4 to 7 percent.
10. No range for M1 has been specified since the February 1987 FOMC meeting because of uncertainties about its underlying relationship to the behavior of the economy and its sensitivity to economic and financial circumstances.
11. At the February 1990 meeting, the FOMC specified a range of 2-1/2 to 6-1/2 percent. This range was lowered to 1 to 5 percent at the July 1990 meeting.
12. At the February 1993 meeting, the FOMC specified a range of 2 to 6 percent for M2, 1/2 to 4-1/2 percent for M3, and 4-1/2 to 8-1/2 percent for domestic nonfinancial debt. These ranges were lowered to 1 to 5 percent for M2, 0 to 4 percent for M3, and 4 to 8 percent for domestic nonfinancial debt at the July 1993 meeting.
13. At the February 1995 FOMC meeting, the FOMC specified a range of 0 to 4 percent. This range was raised to 2 to 6 percent at the July 1995 meeting.
14. Growth rates in parentheses for the monetary aggregates are from 1998 QIV to June 1999 and for nonfinancial debt are from 1998 QIV to May 1999.

6/25/99 (MRA)

**SELECTED INTEREST RATES**  
(percent)

June 28, 1999

	Short-term						Long-term									
	Federal funds	Treasury bills secondary market			CDs secondary market	Comm. paper	U.S. government constant maturity yields				Indexed yields		Moody's Baa	Municipal Bond Buyer	Conventional home mortgages primary market	
		3-month	6-month	1-year	3-month	1-month	3-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	
98 -- High	5.87	5.24	5.24	5.23	5.74	5.71	5.70	5.72	5.75	6.05	3.93	3.82	7.42	5.52	7.22	5.71
98 -- Low	4.56	3.84	3.94	3.84	5.13	4.84	4.15	4.17	4.41	4.88	3.44	3.55	7.01	5.09	6.49	5.35
99 -- High	4.89	4.61	4.85	4.85	5.18	5.24	5.77	5.88	5.98	6.11	3.89	4.00	8.02	5.62	7.65	5.94
99 -- Low	4.42	4.20	4.30	4.29	4.86	4.76	4.58	4.56	4.67	5.12	3.61	3.76	7.24	5.17	6.74	5.56
Monthly																
Jun 98	5.56	4.98	5.12	5.13	5.60	5.51	5.52	5.52	5.50	5.70	3.88	3.72	7.13	5.36	7.00	5.69
Jul 98	5.54	4.96	5.03	5.08	5.59	5.51	5.47	5.46	5.46	5.68	3.87	3.76	7.15	5.35	6.95	5.63
Aug 98	5.55	4.90	4.95	4.94	5.58	5.50	5.24	5.27	5.34	5.54	3.85	3.80	7.14	5.32	6.92	5.59
Sep 98	5.51	4.61	4.63	4.50	5.41	5.44	4.62	4.62	4.81	5.20	3.64	3.67	7.09	5.22	6.72	5.47
Oct 98	5.07	3.96	4.05	3.95	5.21	5.14	4.18	4.18	4.53	5.01	3.53	3.63	7.18	5.19	6.71	5.38
Nov 98	4.83	4.41	4.42	4.33	5.24	5.00	4.57	4.54	4.83	5.25	3.75	3.77	7.34	5.27	6.87	5.53
Dec 98	4.68	4.39	4.40	4.32	5.14	5.24	4.48	4.45	4.65	5.06	3.75	3.80	7.23	5.23	6.72	5.55
Jan 99	4.63	4.34	4.33	4.31	4.89	4.80	4.61	4.60	4.72	5.16	3.73	3.81	7.29	5.23	6.79	5.60
Feb 99	4.76	4.44	4.44	4.48	4.90	4.80	4.90	4.91	5.00	5.37	3.70	3.79	7.39	5.27	6.81	5.65
Mar 99	4.81	4.44	4.47	4.53	4.91	4.82	5.11	5.14	5.23	5.58	3.84	3.90	7.53	5.31	7.04	5.77
Apr 99	4.74	4.29	4.37	4.45	4.88	4.79	5.03	5.08	5.18	5.55	3.72	3.90	7.48	5.29	6.92	5.60
May 99	4.74	4.50	4.56	4.60	4.92	4.79	5.33	5.44	5.54	5.81	3.65	3.85	7.72	5.37	7.15	5.72
Weekly																
Apr 23 99	4.61	4.26	4.38	4.45	4.88	4.76	5.06	5.10	5.20	5.56	3.68	3.90	7.48	5.30	6.88	5.56
Apr 30 99	4.87	4.39	4.43	4.49	4.87	4.77	5.10	5.15	5.26	5.58	3.69	3.89	7.50	5.29	6.93	5.63
May 7 99	4.83	4.49	4.50	4.54	4.88	4.79	5.21	5.32	5.45	5.74	3.69	3.86	7.64	5.35	7.02	5.68
May 14 99	4.72	4.48	4.52	4.55	4.89	4.78	5.27	5.39	5.53	5.83	3.68	3.85	7.69	5.34	7.10	5.71
May 21 99	4.74	4.51	4.60	4.63	4.94	4.80	5.42	5.53	5.61	5.85	3.63	3.84	7.77	5.37	7.23	5.76
May 28 99	4.74	4.52	4.62	4.66	4.96	4.81	5.43	5.51	5.56	5.80	3.61	3.86	7.79	5.41	7.23	5.73
Jun 4 99	4.65	4.53	4.75	4.81	5.01	4.85	5.63	5.75	5.80	5.95	3.66	3.87	7.92	5.46	7.41	5.85
Jun 11 99	4.72	4.50	4.81	4.84	5.05	4.85	5.70	5.81	5.89	6.03	3.69	3.90	7.99	5.53	7.51	5.92
Jun 18 99	4.72	4.56	4.82	4.77	5.12	4.95	5.67	5.80	5.91	6.05	3.78	3.95	8.02	5.52	7.65	5.94
Jun 25 99	4.77	4.61	4.85	4.85	5.18	4.99	5.77	5.88	5.98	6.11	3.89	4.00	--	5.62	7.63	5.93
Daily																
Jun 9 99	4.72	4.47	4.79	4.84	5.05	4.84	5.69	5.79	5.87	6.02	3.70	3.90	7.97	--	--	--
Jun 10 99	4.79	4.54	4.83	4.85	5.07	4.87	5.74	5.85	5.92	6.05	3.71	3.93	8.01	--	--	--
Jun 11 99	4.74	4.60	4.89	4.88	5.09	4.88	5.78	5.92	6.02	6.13	3.71	3.91	8.09	--	--	--
Jun 14 99	4.74	4.57	4.87	4.85	5.12	4.93	5.75	5.89	5.98	6.11	3.72	3.92	8.06	--	--	--
Jun 15 99	4.67	4.61	4.87	4.83	5.12	4.94	5.74	5.87	5.98	6.11	3.73	3.92	8.07	--	--	--
Jun 16 99	4.71	4.54	4.82	4.75	5.11	4.97	5.69	5.84	5.94	6.08	3.80	3.96	8.05	--	--	--
Jun 17 99	4.73	4.51	4.75	4.70	5.13	4.96	5.56	5.67	5.79	5.95	3.79	3.95	7.94	--	--	--
Jun 18 99	4.69	4.55	4.79	4.73	5.11	4.96	5.63	5.75	5.84	5.98	3.87	4.01	7.97	--	--	--
Jun 21 99	4.74	4.57	4.83	4.76	5.11	4.96	5.68	5.81	5.90	6.03	3.89	4.00	8.02	--	--	--
Jun 22 99	4.69	4.60	4.85	4.80	5.15	4.97	5.73	5.84	5.94	6.07	3.88	4.00	8.06	--	--	--
Jun 23 99	4.71	4.60	4.85	4.90	5.19	4.99	5.79	5.90	6.00	6.13	3.88	3.99	8.10	--	--	--
Jun 24 99	4.87	4.60	4.85	4.90	5.23	5.04	5.84	5.93	6.05	6.17	3.90	4.01	8.15	--	--	--
Jun 25 99	5.00 <sup>P</sup>	4.66	4.89	4.90	5.24	--	5.81	5.91	6.02	6.16	3.92	4.01	--	--	--	--

NOTE: Weekly data for columns 1 through 13 are week-ending averages. As of September 1997, data in column 6 are interpolated from data on certain commercial paper trades settled by the Depository Trust Company; prior to that, they reflect an average of offering rates placed by several leading dealers. 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

## Money and Debt Aggregates

Seasonally adjusted

June 28, 1999

Period	Money stock measures					Domestic nonfinancial debt		
	M1	M2	nontransactions components		M3	U. S. government <sup>1</sup>	other <sup>1</sup>	total <sup>1</sup>
			In M2	In M3 only				
	1	2	3	4	5	6	7	8
<b>Annual growth rates (%):</b>								
<b>Annually (Q4 to Q4)</b>								
1996	-4.5	4.6	8.6	15.3	6.8	3.8	5.5	5.1
1997	-1.2	5.8	8.5	19.3	8.8	0.7	6.3	4.8
1998	1.8	8.5	10.9	18.0	10.9	-1.2	8.6	6.1
<b>Quarterly (average)</b>								
1998-Q2	1.0	7.5	9.8	17.8	10.1	-1.4	8.4	6.0
Q3	-2.0	6.9	9.9	13.4	8.6	-1.5	8.2	5.8
Q4	5.0	11.0	13.0	17.9	12.8	-2.0	8.9	6.3
1999-Q1	2.8	7.2	8.7	7.4	7.3	-2.6	8.5	5.9
<b>Monthly</b>								
1998-May	-4.3	5.7	9.2	18.9	9.0	-4.0	8.5	5.4
June	-0.4	6.8	9.4	15.6	9.1	-1.0	7.8	5.6
July	-2.7	5.0	7.7	2.0	4.3	-0.9	8.3	6.1
Aug.	-3.6	7.3	11.0	24.4	11.7	-0.8	8.0	5.9
Sep.	2.8	12.4	15.6	15.1	13.1	-3.3	8.2	5.4
Oct.	6.4	11.6	13.3	15.9	12.7	-3.1	9.4	6.4
Nov.	9.6	10.6	11.0	20.2	13.2	-0.5	9.6	7.2
Dec.	4.8	10.1	11.9	16.6	11.8	-0.4	8.0	6.1
1999-Jan.	-2.6	6.6	9.6	-3.0	4.0	-2.1	7.7	5.4
Feb.	1.8	5.6	6.9	18.2	9.0	-7.3	8.7	5.0
Mar.	10.3	2.8	0.3	-13.7	-1.6	-1.1	9.5	7.0
Apr.	6.9	8.8	9.4	6.2	8.1	-2.4	9.5	6.8
May	-4.0	4.5	7.4	3.7	4.3			
<b>Levels (\$billions):</b>								
<b>Monthly</b>								
1999-Jan.	1091.0	4426.1	3335.1	1591.0	6017.0	3740.9	12357.0	16097.9
Feb.	1092.6	4446.9	3354.3	1615.1	6062.0	3718.2	12446.9	16165.1
Mar.	1102.0	4457.1	3355.1	1596.7	6053.7	3714.7	12545.2	16259.8
Apr.	1108.3	4489.7	3381.4	1604.9	6094.6	3707.2	12644.6	16351.9
May	1104.6	4506.7	3402.2	1609.8	6116.6			
<b>Weekly</b>								
1999-May								
3	1117.2	4490.2	3373.1	1604.2	6094.5			
10	1100.1	4502.6	3402.5	1604.7	6107.3			
17	1100.8	4507.9	3407.1	1608.5	6116.4			
24	1103.9	4506.4	3402.4	1616.5	6122.9			
31	1107.0	4515.9	3408.9	1612.3	6128.2			
June								
7p	1098.4	4511.4	3413.1	1607.9	6119.3			
14p	1093.1	4514.2	3421.2	1617.9	6132.1			

1. Debt data are on a monthly average basis, derived by averaging end-of-month levels of adjacent months, and have been adjusted to remove discontinuities.

p preliminary

pe preliminary estimate

**NET CHANGES IN SYSTEM HOLDINGS OF SECURITIES<sup>1</sup>**  
**Millions of dollars, not seasonally adjusted**

June 25, 1999

Period	Treasury bills			Treasury coupons						Federal agencies redemptions (-)	Net change outright holdings total <sup>4</sup>	Net RPs <sup>5</sup>
	Net purchases <sup>2</sup>	Redemptions (-)	Net change	Net purchases <sup>3</sup>				Redemptions (-)	Net Change			
				within 1 year	1-5	5-10	over 10					
1996	9,901	---	9,901	524	3,898	1,116	1,655	2,015	5,179	409	14,670	-7,849
1997	9,147	---	9,147	5,549	19,680	3,849	5,897	1,996	32,979	1,540	40,586	-5,202
1998	3,550	2,000	1,550	6,297	12,901	2,294	4,884	2,676	23,699	322	24,902	-11,981
1998 ---Q1	---	2,000	-2,000	1,501	2,262	283	743	478	4,311	60	2,251	-12,184
---Q2	3,550	---	3,550	1,369	2,993	495	---	286	4,571	99	8,022	-13,549
---Q3	---	---	---	2,024	4,524	654	1,769	1,311	7,659	98	7,536	-10,034
---Q4	---	---	---	1,403	3,122	862	2,372	602	7,158	65	7,093	-9,477
1999 ---Q1	---	---	---	3,163	5,180	681	3,019	492	11,551	27	11,524	-8,004
1998 June	---	---	---	---	---	---	---	---	---	25	-25	-11,249
July	---	---	---	---	---	---	---	1,311	-1,311	---	-1,311	-11,420
August	---	---	---	986	535	303	1,769	---	3,593	50	3,518	-10,507
September	---	---	---	1,038	3,989	351	---	---	5,377	48	5,329	-9,868
October	---	---	---	741	725	---	1,674	602	2,539	15	2,524	-12,553
November	---	---	---	662	2,397	862	698	---	4,619	20	4,599	-11,659
December	---	---	---	---	---	---	---	---	---	30	-30	-6,096
1999 January	---	---	---	---	---	---	615	492	123	2	121	-7,799
February	---	---	---	2,103	2,752	335	---	---	5,190	---	5,190	-10,380
March	---	---	---	1,060	2,428	346	2,404	---	6,238	25	6,213	-7,243
April	---	---	---	1,677	3,362	945	262	726	5,520	---	5,520	-8,603
May	---	---	---	1,421	4,447	1,896	3,320	---	10,337	---	10,337	-10,368
Weekly												
March 3	---	---	---	1,333	---	---	---	---	1,333	---	1,333	-8,779
10	---	---	---	---	---	346	1,227	---	1,573	25	1,548	-7,840
17	---	---	---	---	1,017	---	---	---	1,017	---	1,017	-8,589
24	---	---	---	1,060	---	---	675	---	1,735	---	1,735	-5,372
31	---	---	---	---	1,411	---	502	---	1,913	---	1,913	-7,024
April 7	---	---	---	---	255	296	---	---	551	---	551	-6,711
14	---	---	---	810	932	325	262	---	2,329	---	2,329	-9,266
21	---	---	---	---	703	---	---	726	-24	---	-24	-7,714
28	---	---	---	867	1,472	324	---	---	2,663	---	2,663	-11,760
May 5	---	---	---	---	---	---	---	---	---	---	---	-4,525
12	---	---	---	484	1,222	---	---	---	2,819	---	2,819	-11,926
19	---	---	---	---	1,869	930	2,466	---	3,405	---	3,405	-9,271
26	---	---	---	937	1,221	---	804	---	2,962	---	2,962	-15,717
June 2	---	---	---	---	135	966	50	---	1,151	---	1,151	-8,425
9	---	---	---	880	---	---	---	---	880	---	880	-14,008
16	---	---	---	---	948	65	---	---	1,013	48	965	-12,317
23	---	---	---	---	---	---	---	---	---	---	---	-16,247
Memo: LEVEL (bil. \$) <sup>6</sup>												
June 23			215.7	52.6	122.0	49.5	62.6		286.7		502.7	-16.0

1. Change from end-of-period to end-of-period.

2. Outright transactions in market and with foreign accounts.

3. Outright transactions in market and with foreign accounts, and short-term notes acquired in exchange for maturing bills. Excludes maturity shifts and rollovers of maturing issues.

4. Reflects net change in redemptions (-) of Treasury and agency securities.

5. Includes change in RPs (+), matched sale-purchase transactions (-), and matched purchase sale transactions (+).

6. The levels of agency issues were as follows:

within 1 year	1-5	5-10	over 10	total
0.1	0.0	0.2	0.0	0.3

June 23