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JUNE 26, 1998

## **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 26, 1998

MONETARY POLICY ALTERNATIVES

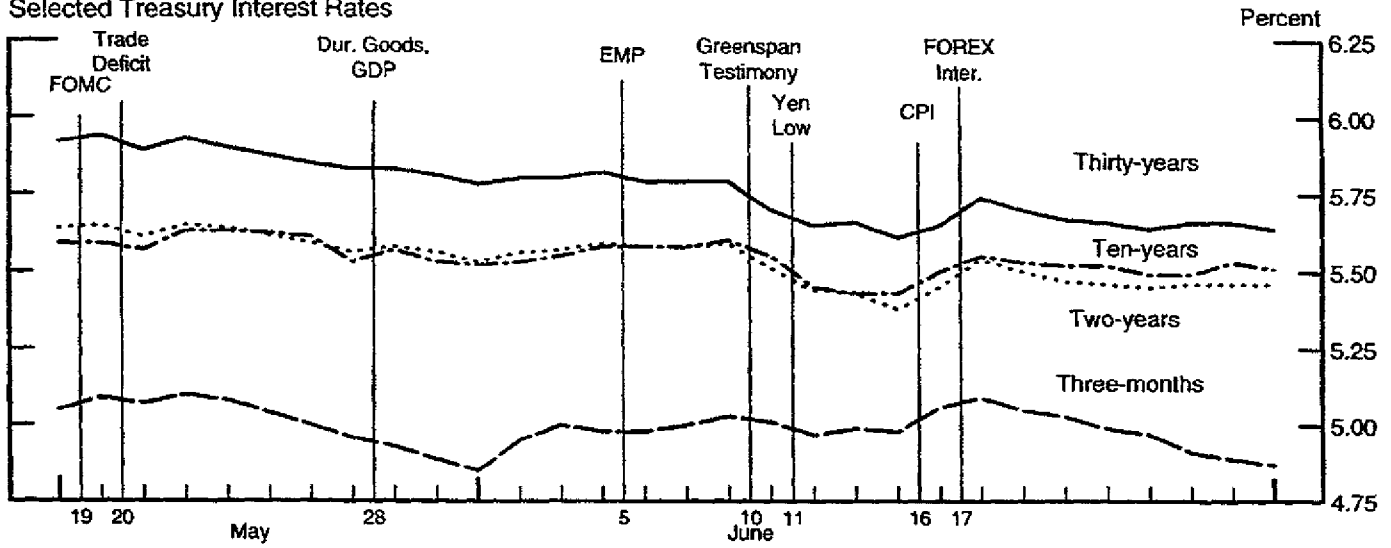
Recent Developments

(1) The federal funds rate averaged near its intended level of 5½ percent over the intermeeting period. Intermediate- and long-term rates fell 5 to 30 basis points over the period (chart). Markets were responding primarily to developments overseas--in particular, further deterioration in several Asian economies, along with the associated strengthening of the dollar and turmoil in financial markets in Asia and in emerging market economies elsewhere, all of which damped the outlook for U.S. economic growth, strengthened market participants' conviction that inflation would stay low, and prompted some investors to seek the safety of U.S. Treasury instruments. Short-term rates, anchored by continued expectations that the funds rate will remain at its current level for a while, generally fell by less, though the three-month bill rate has moved down about 15 basis points over the last week, as turmoil in a number of foreign markets persisted and in some cases intensified. The slope of the nominal term structure from three months to ten years dropped to the low end of its range for the past several years. However, it is not unusually flat relative to the slopes posted in the 1950s and 1960s, when inflation was well behaved on a sustained basis.

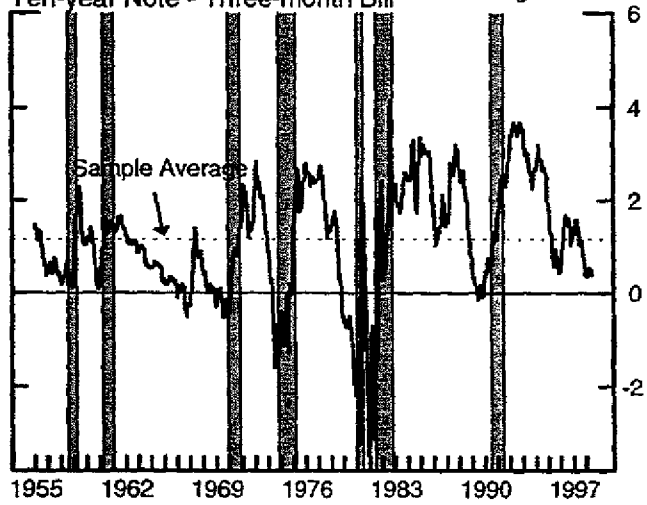
(2) Spreads between rates on private and Treasury securities generally rose over the intermeeting period, especially for lower-rated issues. In part, the widening likely reflected the increased value some investors attached to the safety and liquidity of Treasury securities in light of the turmoil in emerging markets. However, it may also suggest that some investors are taking a more cautious view of the outlook for the profits and financial

Chart 1

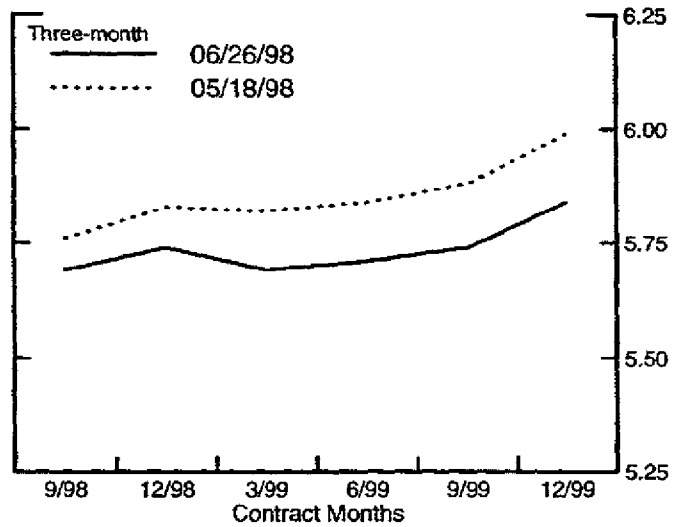
Selected Treasury Interest Rates



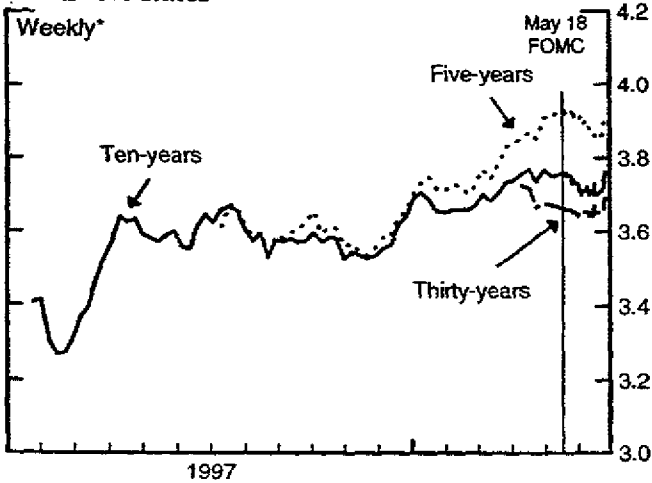
Treasury Yield Spread: Ten-year Note - Three-month Bill



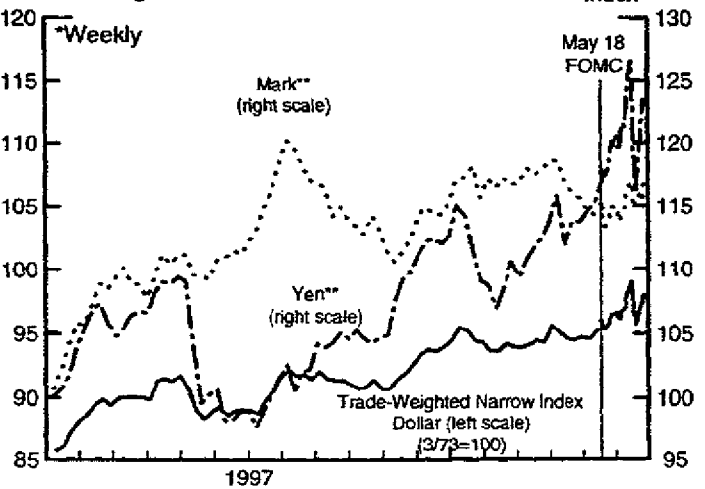
Eurodollar Futures



Treasury Inflation-Protected Securities Rates



Exchange Rates



\* Daily beginning May 18.

\* Daily beginning March 30  
\*\* Index, Jan 1997=100.

strength of businesses. This possible shift in attitude is also consistent with the performance of the stock market despite the decline in interest rates: On balance, major stock indexes have posted mixed changes since the last FOMC meeting. With the exception of the S&P 500, which touched a record high on June 26, most major indexes have fallen a few percent from their peaks reached earlier this year.

(3) The dollar appreciated significantly in the early part of the intermeeting period, led by an 8 percent rise against the yen. Evidence of a steep drop in economic activity in Japan and a lack of confidence that government policies were coming to grips with the country's economic and financial problems were the main factors behind the yen's weakness. The bellwether government bond yield in Japan declined to a record low in early June on speculation that the Bank of Japan might reduce its official discount rate. After reaching an eight-year low against the dollar of almost 147 on June 15, the yen began to firm on rumors of imminent intervention. On Wednesday, June 17, the Desk purchased                      yen for                      \$833 million                      for U.S. accounts, split evenly between the Federal Reserve and the Treasury. In conjunction with the intervention, a statement by Japanese officials noted their government's intention to consider further fiscal stimulus and to act quickly to resolve problems in their banking sector. Immediately after the intervention, the dollar fell 4 percent against the yen and 1 percent against the mark. Over the last week, however, the yen has given up all of its gains against the dollar as it became clear that the Japanese government would not take immediate action and as concerns about the viability of a number of major Japanese banks mounted. The yen ended the intermeeting period down 4 percent against the dollar. Relative to continental

European currencies, the dollar has risen only modestly on net since the last FOMC meeting, as declines in long-term interest rates in those countries about matched those on comparable U.S. instruments. In contrast, the dollar fell 2¼ percent against sterling, which was buoyed by a surprise increase of ¼ percentage point on June 4 in the Bank of England's official RP rate and by subsequent incoming data that fostered expectations of at least one more rate increase in the near term. On net, the foreign exchange value of the dollar relative to major currencies increased more than 2 percent over the intermeeting period.

(4) Declines in the exchange value of the yen put added pressure on financial markets in other Asian economies. Prior to the joint U.S.-Japanese intervention, Chinese officials speculated openly about the possibility of abandoning the renminbi's current peg to the dollar, but following the intervention and the yen's initial rebound, they reiterated their commitment to their current exchange rate policy. The Indonesian rupiah has depreciated 20 percent against the dollar over the intermeeting period, pressured by political uncertainty. Despite the drop in the rupiah, Indonesian stock prices rose 11 percent, and credit spreads on the nation's sovereign foreign currency debt narrowed a bit over the intermeeting period. By contrast, the currencies of other Asian economies depreciated slightly on average relative to the dollar. However, these economies' equity markets were down about 5 to 25 percent, and credit spreads on their dollar-denominated sovereign debts moved up 30 to 110 basis points.

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(5) A number of other countries appeared to be affected over the intermeeting period by a general increase in investors' concern about the outlook for emerging market economies. Speculative pressure on the Russian ruble intensified in late May and again at the end of June, as market participants reportedly became concerned about persistent shortfalls in government revenues and the impact of lower commodity prices on Russian exports. The government announced a new fiscal program that calmed markets for a while and made it possible for the IMF to restart disbursements under Russia's suspended IMF program. Over the intermeeting period as a whole, credit spreads on dollar-denominated Russian foreign debts increased 330 basis points. Credit risk spreads for Latin American sovereign borrowers widened 90 to 140 basis points, on balance, over the same period.

(6) Growth of the monetary aggregates moderated somewhat in the second quarter. Smoothing through the tax-induced bulge in M2 growth in April and subsequent marked slowing in May, growth in those two months averaged about a 6 percent rate, down from 8½ percent over the first three months of the year. Preliminary data for June suggest a small further moderation.<sup>2</sup> Despite this slowing, through June of this year M2 has expanded at a 7¼ percent pace from the final quarter of last year, and velocity has declined over the first half at an estimated 2½ percent rate. More than 1 percentage point of this drop can be attributed to identified special factors that have temporarily boosted deposit holdings, including the sharp rise in mortgage refinancing and outsized tax payments. In addition, the demand for money

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2. The staff had expected an even larger deceleration of M2 in the second quarter. Much of the upward revision to M2 growth in May and June reflected data revisions. First-quarter call report data showed fewer small time deposits in IRA and Keogh plans and more in M2 than we had estimated. In addition, a large bank underreported its demand deposits in April and May owing to computer problems following a merger. The bank provided revised data in early June.

relative to income may have been boosted by the comparative attractiveness of M2 assets as rates on long-term fixed-rate instruments fell and by the effects of household portfolio decisions in light of the sharp run-up of share prices in recent years. Growth in M3 has also slowed in the last few months, reflecting the behavior of M2. Nonetheless, M3 has grown a couple of percentage points faster than M2. The difference reflects continued very rapid growth in the non-M2 components of M3, especially institution-only money funds, which have made further gains in attracting corporate cash-management business. From the fourth quarter of last year through June, M3 has grown at a 10¼ percent pace.

(7) Outside the federal sector, the growth in domestic nonfinancial debt has been fairly rapid this year, owing to robust demand for credit and the availability of funds on attractive terms from intermediaries and the capital markets. Business borrowing has been strong in recent months, although it appears to have edged back from its very rapid pace in the first quarter, when a surge in inventory investment probably added to already large credit demands. With the yield curve quite flat and long-term corporate rates near their lowest levels in some time, businesses have issued bonds in record volume this year. Household debt growth also likely has slowed a bit from its first quarter pace but has remained brisk in the second quarter. Mortgage debt has expanded particularly vigorously this year, buoyed by the high level of home purchases and low long-term interest rates, which have encouraged some households to substitute mortgage finance for higher-cost consumer debts. Despite the continued strong growth in the debt of the nonfederal sectors, paydowns of federal debt made possible by robust tax revenues trimmed the expansion of total domestic debt to a bit less



than 5 percent in recent months, reducing the growth rate of the aggregate from the fourth quarter of last year through May to about  $5\frac{3}{4}$  percent.

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

	April	May	June	97:4 to June <sup>2</sup>
<u>Money and Credit Aggregates</u>				
M1	-0.2	-3.1	-3.9	0.9
Adjusted for sweeps	6.1	0.6	2.7	5.2
M2	9.5	2.8	5.0	7.3
M3	10.8	6.3	6.1	10.2
Domestic nonfinancial debt	4.9	4.5	n.a.	5.8
Federal	-2.6	-5.7	n.a.	-1.3
Nonfederal	7.4	7.9	n.a.	8.2
Bank Credit	-3.1	7.7	3.7	7.8
Adjusted <sup>1</sup>	-1.8	7.3	1.8	7.6
<u>Reserve Measures</u>				
Nonborrowed Reserves	-3.1	-11.6	-11.2	-3.9
Total Reserves	-2.3	-9.5	-9.5	-4.0
Adjusted for sweeps	10.3	-0.3	4.5	5.7
Monetary Base	3.4	4.7	7.9	5.9
Adjusted for sweeps	4.9	5.3	8.9	6.8
Memo: (millions of dollars)				
Adjustment plus seasonal borrowing	72	153	204	--
Excess Reserves	1345	1150	1389	--

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

2. For nonfinancial debt, 97:Q4 to May.

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.

### Longer-Term Strategies

(8) This section considers alternative longer-term strategies for monetary policy. We do this by constructing a "baseline case" that extends the Greenbook forecast, bringing unemployment gradually back to the NAIRU. We then use the staff model to construct an alternative strategy that eventually achieves price stability--as proxied by core PCE inflation of about  $\frac{3}{4}$  percent (on a 1999 measurement basis).

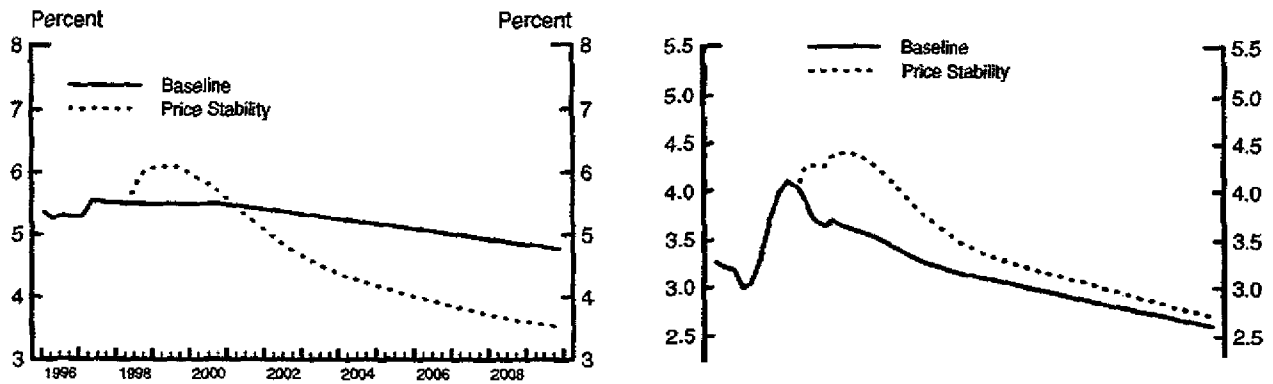
(9) Key factors underlying the extended baseline forecast, which also provide the underpinnings for the alternative strategy, generally represent a continuation of conditions at work in the Greenbook forecast. In labor markets, the NAIRU is 5.4 percent and the sacrifice ratio is about 2--that is, a 1 percentage point reduction in inflation can be achieved by pushing the unemployment rate above the NAIRU by the equivalent of 2 percentage points for one year. On the demand side, the federal government runs a small budget surplus that remains about unchanged as a percent of nominal GDP. Stock market wealth rises more slowly than nominal income; the price-earnings ratio declines over the simulation horizon from about 28 to around 21, still somewhat high by historical standards. Finally, the current account deficit continues to worsen over time. This development, which is driven by stronger secular growth in the demand for imports in the United States than for U.S. exports overseas, occurs despite a return to trend growth abroad and a partial offset from a sustained mild depreciation in the real foreign exchange value of the dollar. These last three influences progressively restrain aggregate demand relative to potential and consequently over time reduce the real federal funds rate needed to hold the economy at potential.

(10) In the baseline strategy, shown by the solid lines in Chart 2, the current level of the real funds rate is sufficient to bring about a gradual rise in the unemployment rate, given the other restraining influences on aggregate demand. However, because the unemployment rate stays below the NAIRU through 2001, inflation continues to rise somewhat after the end of the Greenbook forecast period. (As in the Greenbook, technical changes to price indexes through 1999 hold down measured inflation, but we are assuming no further adjustments after that.) Thus, by holding the nominal funds rate constant for the next several years, in effect the Committee would be modestly easing, all else equal, because the real funds rate edges down. The slow decline limits the long-term rise in the unemployment rate, producing a “soft landing” by 2002, with unemployment at its steady-state rate and inflation stable at  $2\frac{1}{2}$  percent. Thereafter, the FOMC slowly reduces the nominal and real funds rates so as to keep the economy at full employment in the face of a falling wealth-to-income ratio and a worsening trade deficit.

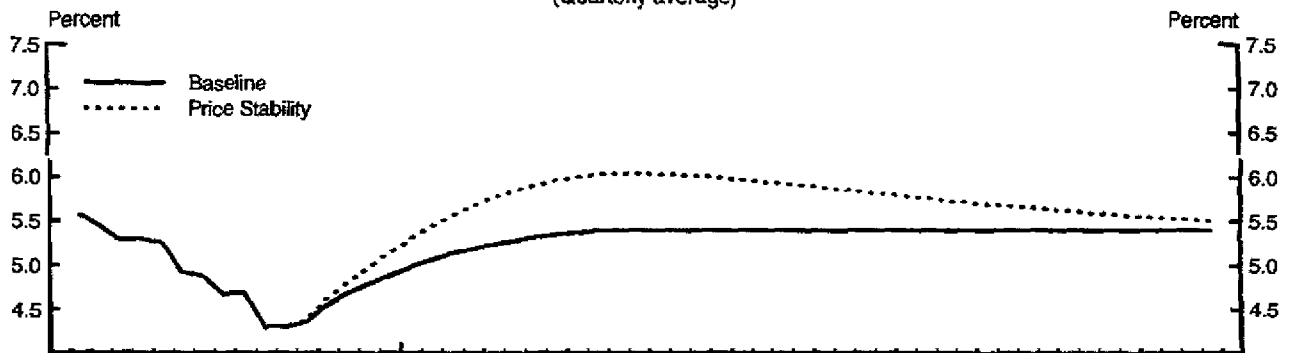
(11) The price stability strategy (shown by the dashed lines) eventually achieves effective price stability as gauged by an inflation rate of  $\frac{1}{2}$  percent, close to the estimated measurement error. In this strategy, the Committee raises the nominal funds rate to a little above 6 percent by the end of this year, and maintains it at that level through 1999. Inflation begins to decline in 1999 even though unemployment remains below the NAIRU, reflecting a rise in the dollar, the sharp slowing of real output (a “speed effect”), and the public’s growing recognition that the Federal Reserve is seeking a lower inflation rate. With inflation declining and the nominal federal funds rate unchanged, the real federal funds rate climbs further to  $4\frac{1}{2}$  percent, almost a percentage point above the baseline strategy. As inflation moves closer to

Chart 2  
Alternative Strategies for Monetary Policy

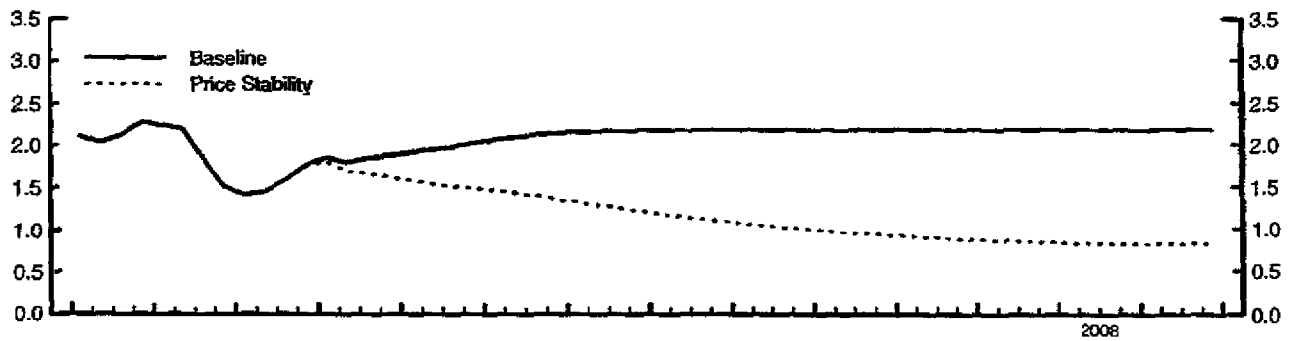
Nominal Federal Funds Rate



Civilian Unemployment Rate  
(Quarterly average)



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



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.

the Federal Reserve's assumed objective and the output gap widens, the Committee begins to lower nominal rates in 2000 by enough to produce a gradual decline in the real funds rate, a process that caps the rise in the unemployment rate at about 6½ percent early in the next decade and thereafter brings it slowly back down to NAIRU.

### Ranges for Money and Debt

(12) The paragraphs below present projections for money and debt for 1998 and 1999 consistent with the Greenbook forecast. The table on page 13 and the discussion following give the current ranges and alternatives that the Committee may wish to consider.

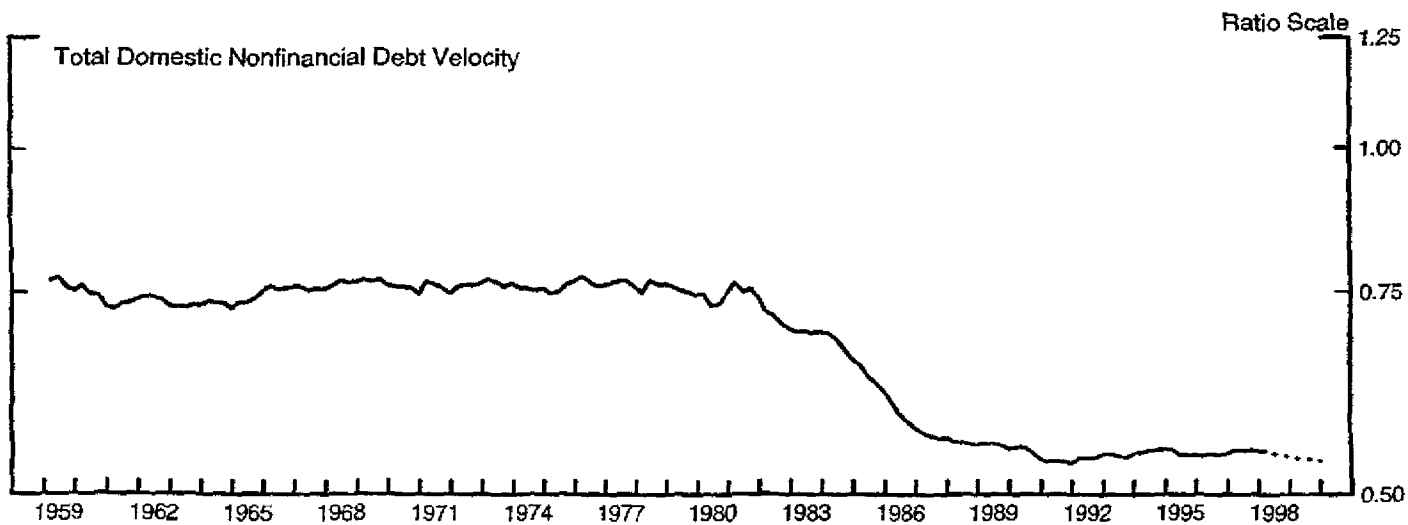
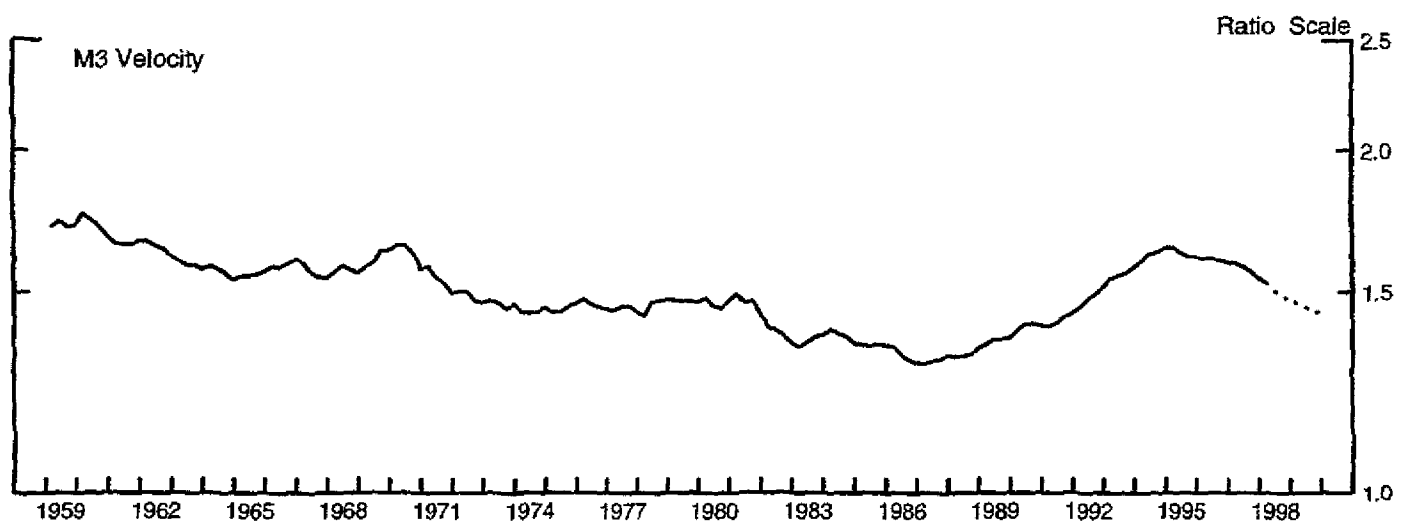
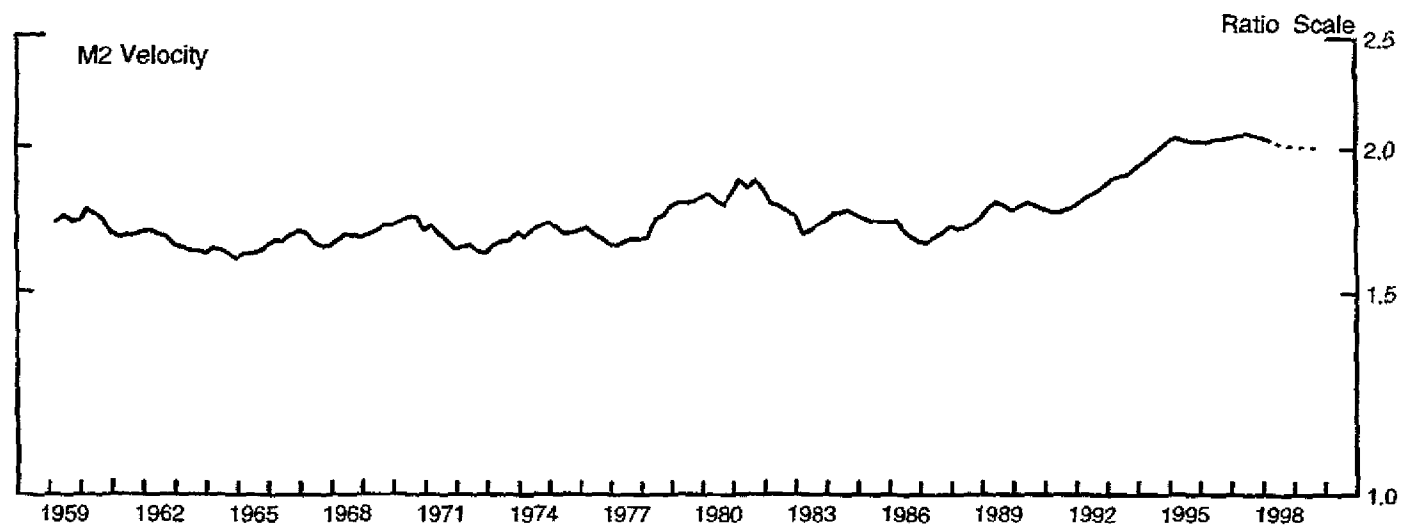
#### *Projected Money and Debt Growth.*

(13) M2 is projected to grow 6 percent this year, about  $1\frac{1}{4}$  percentage points faster than nominal GDP. The unusual strength in M2 is not associated with a decrease in the traditional measure of opportunity costs--the three-month Treasury bill rate less the weighted-average yield on M2 assets--which has been virtually unchanged this year and is expected to remain constant under the staff forecast. A small part of the strength in M2 reflects a temporary buildup in deposits associated with the recent surge in mortgage refinancings. In addition, the demand for M2 assets in the first half of the year was perhaps augmented by the effects of a strong stock market and reduced bond yields, and these influences should persist for a while. However, with bond yields expected to decline no further and the stock market slipping a bit, the boost to M2 growth from mortgage refinancing and portfolio adjustments is expected to abate in 1999. The staff projects M2 growth of 4 percent for 1999, only a bit faster than that of nominal GDP. (Historical and projected money and debt velocities are plotted in Chart 3.)

(14) M3 is likely to grow a robust 9 percent this year, a bit faster than in 1997, as depositories continue to see profitable opportunities to expand credit, and they begin to rely somewhat less on increases in overseas and other non-M3 funding sources. Also, the outsourcing of money management services by businesses to institutional money funds should

Chart 3

Actual and Projected Velocity of M2, M3, and Debt





persist. Private debt is expected to grow quickly this year, lifting expansion of the domestic nonfinancial debt aggregate to 5½ percent, despite a surplus for the federal government. Business borrowing is projected to remain robust, with investment spending moderating in coming quarters but still outpacing internal financing given the anticipated weakening of profits. Household borrowing also should be brisk this year, supporting strong spending on housing and consumer durables. In 1999, total debt is projected to decelerate to a 4½ percent growth rate, owing primarily to slower expansion of nominal spending; any tightening in credit terms and standards is expected to be modest and selective and not impinge on the general availability of credit. As the increase in depository credit moderates next year, M3 growth is projected to throttle down to a 6½ percent pace.

*Ranges for 1998 and 1999*

(15) The table below summarizes the staff projections for money and debt and presents three alternative sets of ranges for Committee consideration. Alternative I is the current set of ranges (unchanged since July of 1995); alternative II raises the money ranges to make them more consistent with the staff projections, particularly for 1999, and trims the debt range to reflect the projected slowdown in this aggregate;<sup>3</sup> alternative III maintains the current money ranges but lowers the debt range further, making it more consistent with the expected growth of debt under conditions of price stability and no trend in debt velocity.

(16) Since the M2 range was first interpreted four years ago as reflecting the behavior of this aggregate under price stability, the Committee has been reviewing whether

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3. Committee members appear to be projecting stronger nominal GDP growth than the staff in 1998 and 1999. The implications of these projections for money and debt growth are discussed in paragraph 18.

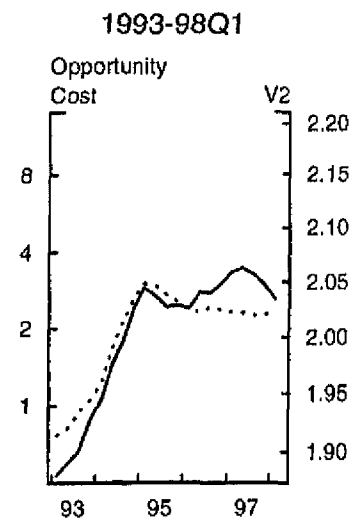
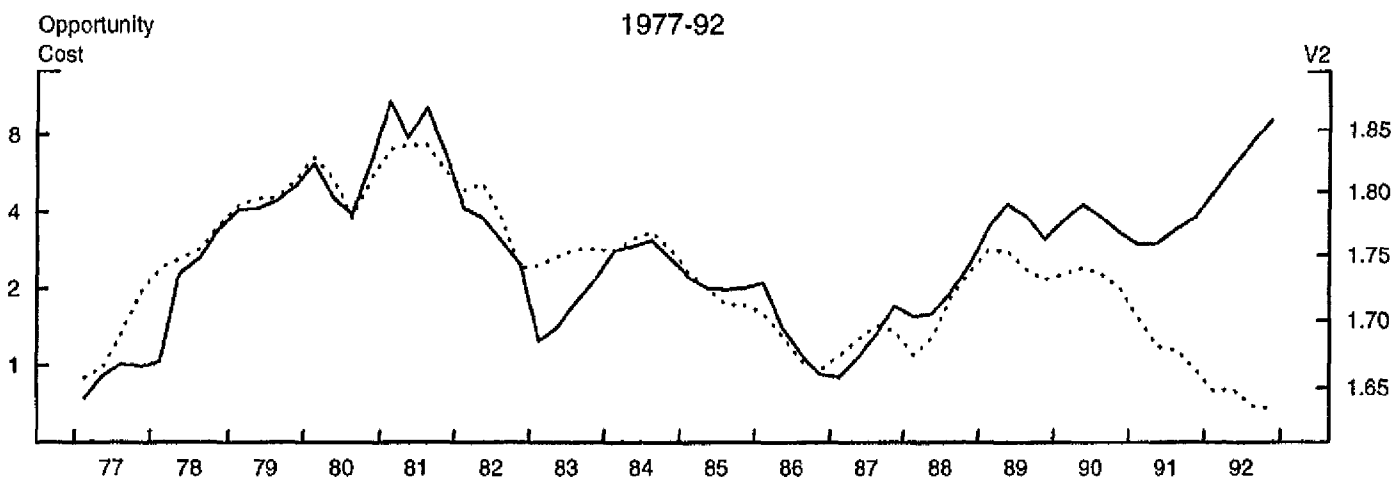
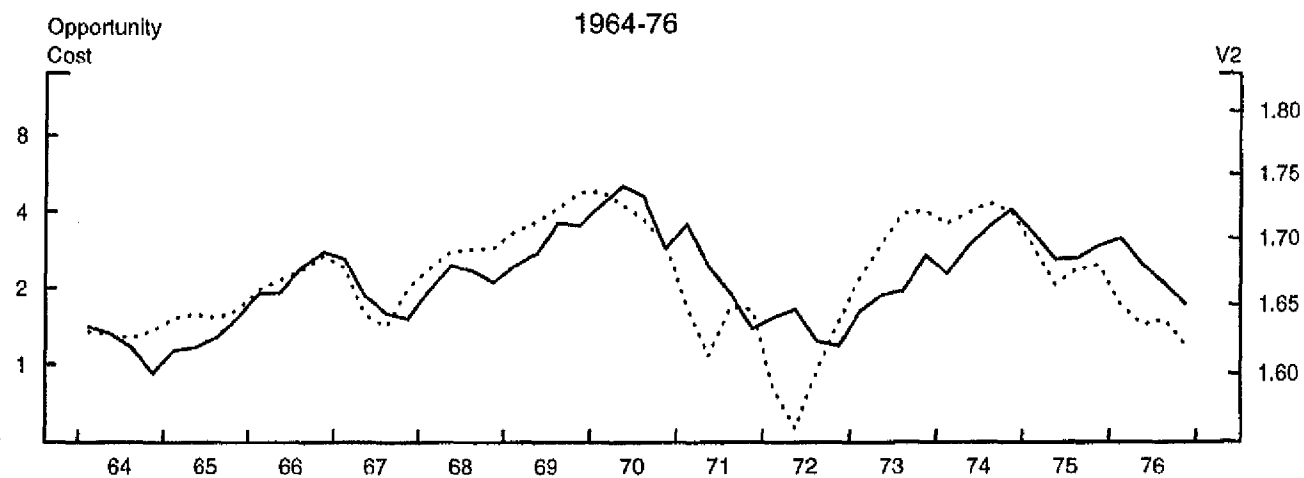
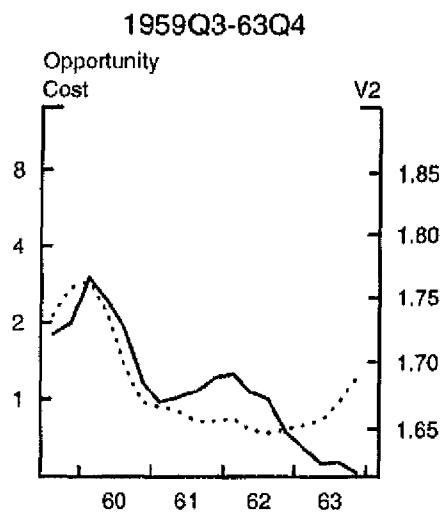
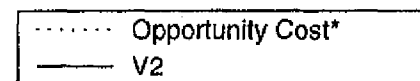
the velocity of M2 has again become stable or predictable enough to justify restoring a range for M2 that reflects its projected annual growth. Chart 4 shows the relationship between

**Growth of Money and Debt and Alternative Ranges**

	(percent)				
	1998	1999	Alt. I	Alt. II	Alt. III
	-----projected-----		(current)	-----	-----
<b>M2</b>	6	4	1 to 5	2 to 6	1 to 5
<b>M3</b>	9	6½	2 to 6	4 to 8	2 to 6
<b>Debt</b>	5½	4½	3 to 7	2 to 6	1 to 5
<b>Memo:</b>					
<b>Nominal GDP</b>	4¼	3¼			

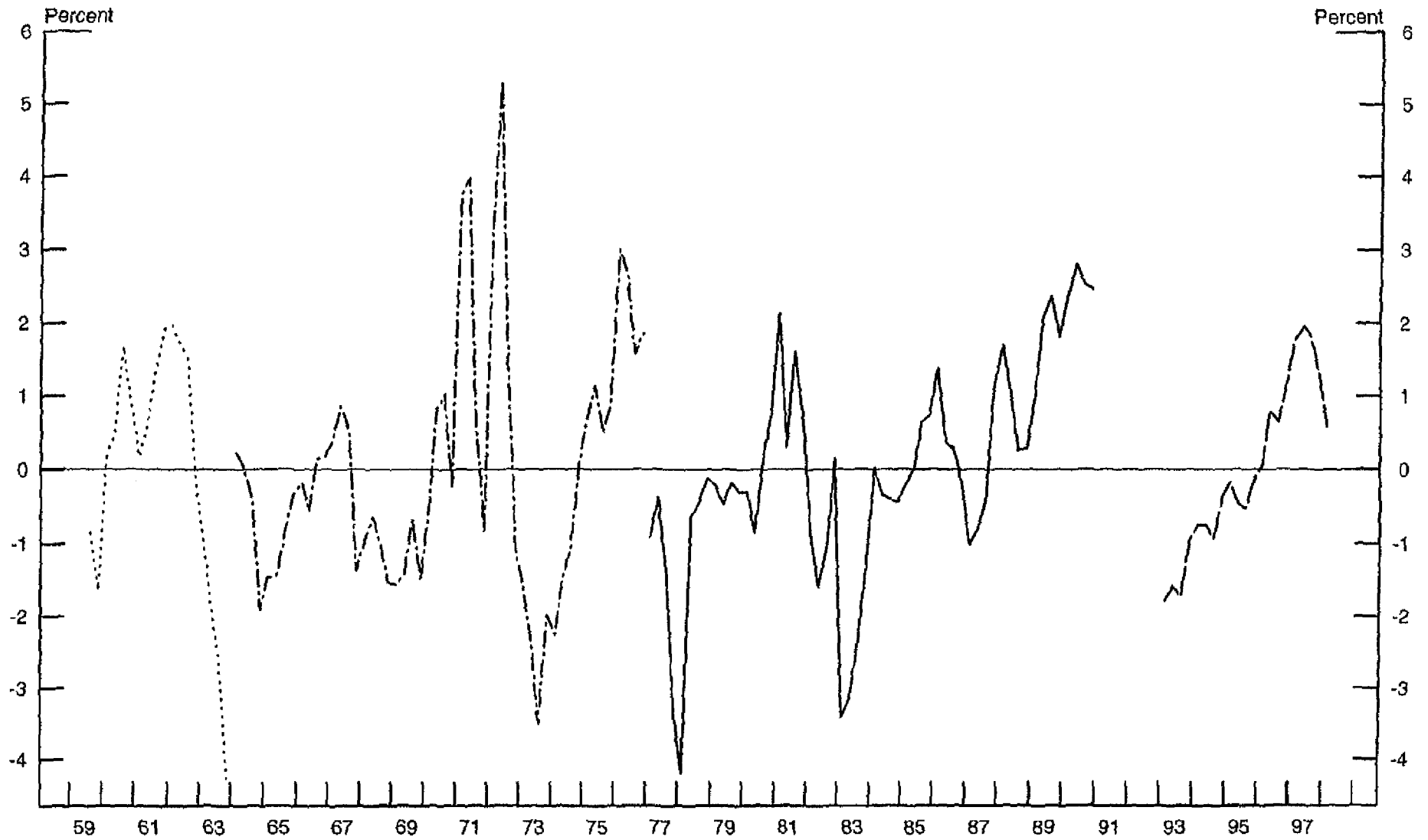
levels of M2 velocity and opportunity cost over four subperiods. The responsiveness of V2 to opportunity cost implied by the left and right scales over each of the four subperiods is constrained to equal the value derived using data from 1977 to 1990; however, the average levels of velocity and opportunity cost were aligned in each subperiod. As can be seen from the lower right panel, after the completion of the large shift in its level in the early 1990s, V2 recently has had about as close a relationship to short-run opportunity costs as over history. The differences between the lines on Chart 4 (expressed as a percent of velocity) are plotted in Chart 5; these plots confirm that, after allowing for the level shift in velocity, the relationship recently has experienced about the same errors as previously. The relationship of V2 to opportunity costs is the core of the staff's formal money demand model, which has also

Chart 4  
M2 Velocity and Opportunity Cost by Period  
(Quarterly, ratio scales)



\* Opportunity Cost (left scale), in percentage points, the dotted line, is a two-quarter moving average, V2 (right scale), the solid line, is in levels; both are ratio scales.

Chart 5  
Deviations of V2 from the Simple Relationship to Opportunity Costs\*



\* Percentage deviations from actual V2 of estimates based on opportunity costs.  
The years 1991 and 1992, when long-run velocity was shifting up sharply, are omitted.

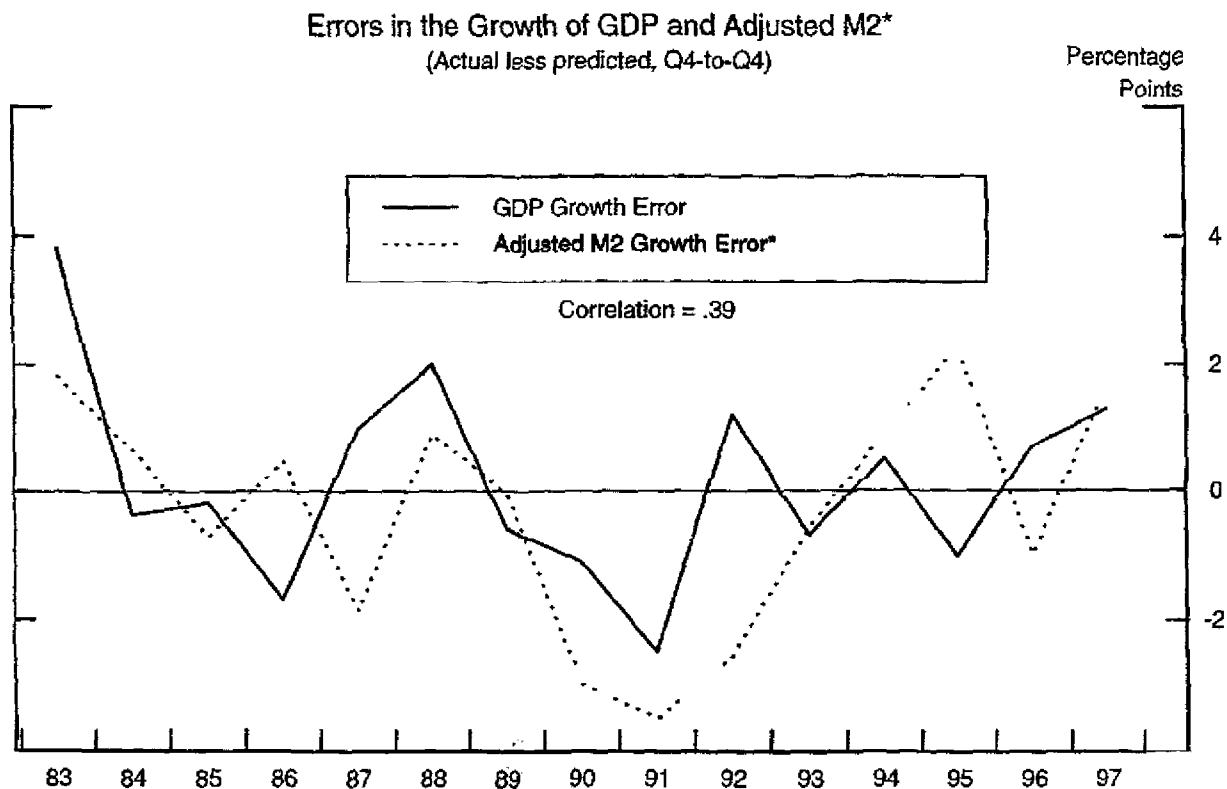
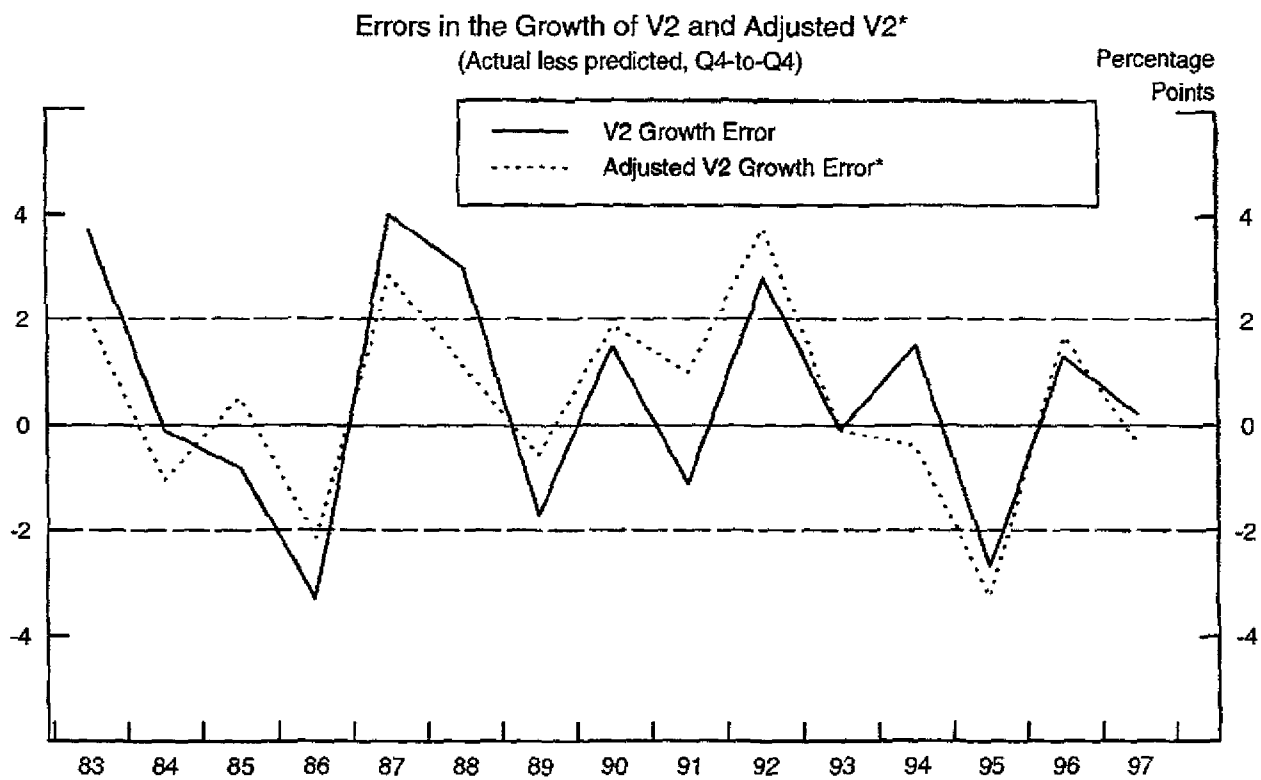
been performing about as well in predicting quarterly M2 growth in the last few years as over its estimation period of 1964 to 1988.

(17) Nevertheless, even supposing there were no further disruptions to V2 of the magnitude of those of the early 1990s, V2 may not be viewed as sufficiently predictable to justify basing the ranges on projections. The upper panel of Chart 6 shows the Board staff's ability to predict in February the growth of V2 over that year. It begins in 1983, when M2 became the monetary aggregate of greatest interest to the Committee. The solid line shows the judgmental errors in predicting V2 and compares them to a range 4 percentage points in width centered on the staff projection (as indicated by the dashed lines). In six of the last fifteen years these errors by themselves (apart from any misforecast of nominal GDP) would have caused M2 to fall outside this 4 percent range. Two of the misses in the 1980s are attributable to deviations of the funds rate from the Greenbook assumption, as shown by the adjusted V2 errors -- the dotted line.<sup>4</sup> Nevertheless, the dotted line itself moves outside the band on four occasions, showing that unpredictable shifts in money demand may throw M2 out of its range. However, M2 has provided some value as an indicator for nominal GDP, as shown for example in the positive correlation of surprises in the behavior of M2 with surprises in GDP relative to the Greenbook forecast (the bottom panel of Chart 6). Chart 7 depicts a similar analysis for M3. The V3 errors, adjusted for the effects of deviations of the federal funds rate from Greenbook assumptions, have tended to be a bit larger than those for

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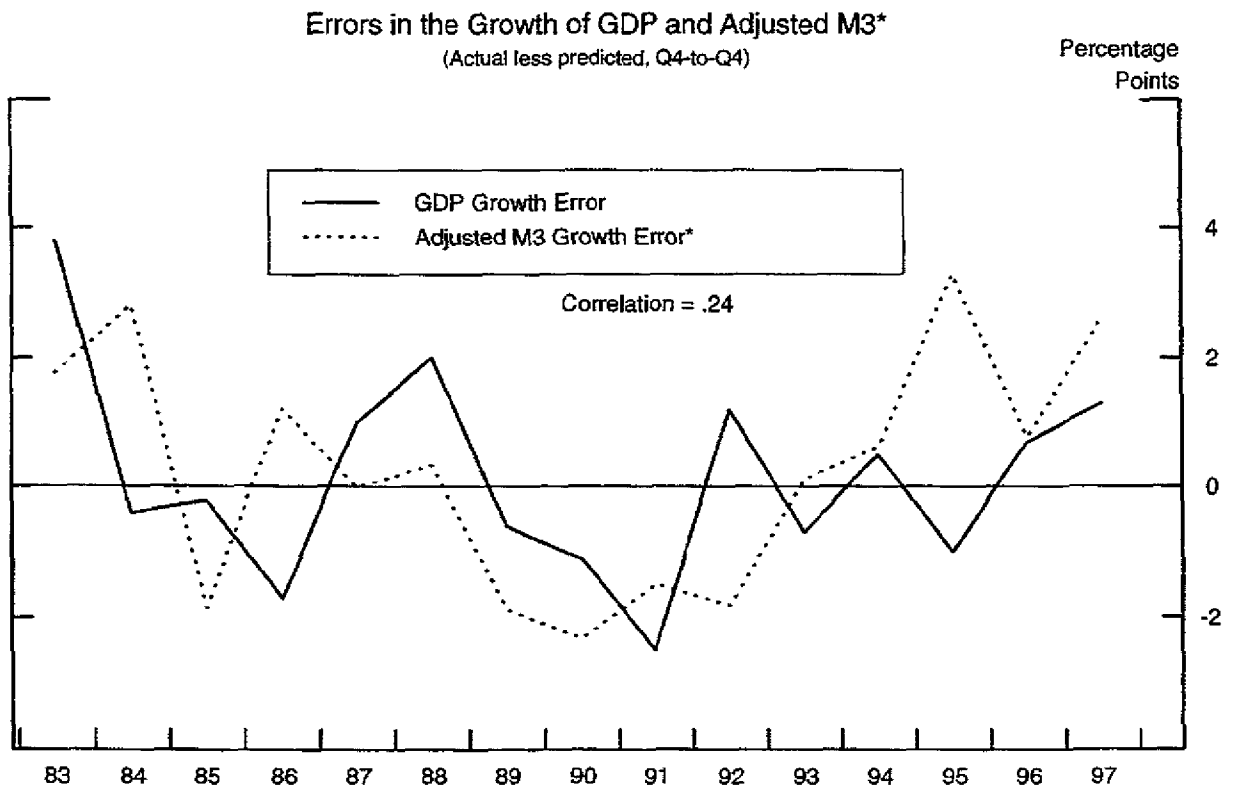
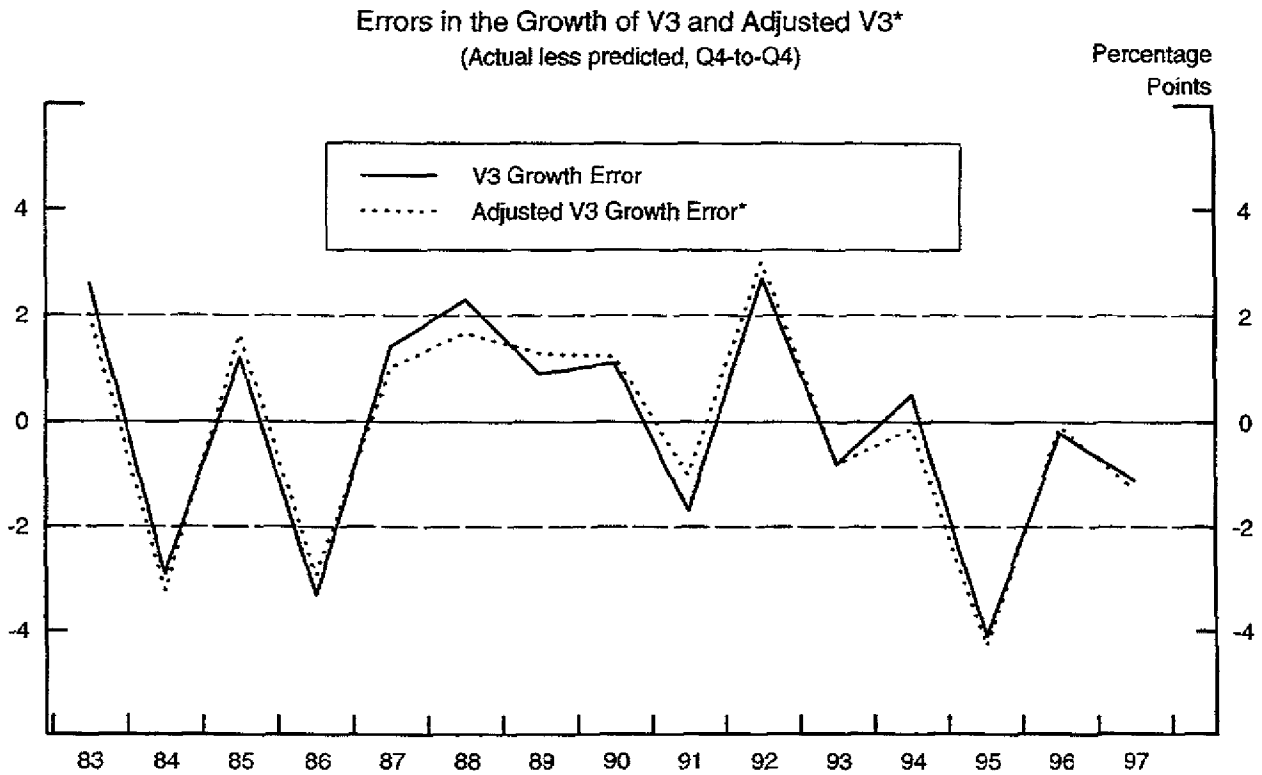
4. A semi-elasticity (that is, the percent change of V2 for a percentage point change in the funds rate) of 1.9 was used to adjust V2 for deviations of the funds rate from Greenbook assumptions, based on the correlation between the errors in forecasting the two series over this period. This is slightly stronger than the 1.6 interest semi-elasticity implied by the staff's traditional money demand model at a funds rate of about 5 percent.

Chart 6  
 Analysis of Judgmental Projections of M2 Made in February for the Current Year



\* The errors are adjusted for the effects of deviations of the federal funds rate from Greenbook assumptions, based on the semi-elasticity of 1.9 implied by the correlation between the forecast errors of V2 growth and of the funds rate

Chart 7  
 Analysis of Judgmental Projections of M3 Made in February for the Current Year



\* The errors are adjusted for the effects of deviations of the federal funds rate from Greenbook assumptions, based on the semi-elasticity of .63 implied by the correlation between the forecast errors of V3 growth and of the funds rate.

V2, and, as suggested by the bottom panel, the relationship of M3 to GDP is a little weaker than that for M2.

(18) Because M2 has some desirable indicator properties and because its velocity has been no more unpredictable in the past few years than over the 1960-90 period, the Committee might want to return to announcing a range based on its projection for this monetary aggregate. Such a range also could be selected for M3 in order to establish a consistent interpretation for all three ranges. If the Committee shifted to projection-based ranges for M2 and M3 for 1998, substantial adjustments to the ranges that were set in February would be needed to encompass the projected growth of those aggregates, particularly if a cushion between projected growth and the upper bound were thought desirable. More modest upward adjustments would be needed if the Committee shifted to a projection basis for the provisional monetary ranges only for next year, given the staff projection of a deceleration in these aggregates. The alternative II ranges were constructed to be consistent with the staff forecast for 1999. The apparently stronger nominal GDP forecasts of Committee members might imply somewhat faster money and debt growth, assuming the Committee members' preliminary forecasts are based on approximately the same paths for interest rates and stock prices as in the staff forecast. Those more rapid growth rates next year would still be below the staff projections for 1998. Selection of projection-based ranges need not signal that the monetary aggregates are again being given greater consideration in policymaking. The Committee could explain that, even though it believed that velocity behavior had become somewhat more predictable, it nevertheless was simply setting ranges for money and debt consistent with its economic outlook and was not intending to adjust the



stance of policy in response to deviations of the aggregates from their ranges. Alternatively, the Committee may in fact wish to signal added emphasis on the money and debt aggregates at this time of heightened uncertainties regarding the NAIRU and other nonmonetary leading indicators of inflation, for such emphasis may help it communicate its concerns about inflation pressures when policy needs to be tightened, particularly if the tightenings have a preemptive quality. Careful explanation could make clear that the added emphasis does not go so far as to imply a presumption that deviations from ranges would trigger policy responses, only that money is one of the many indicators the Committee is using.

(19) On the other hand, the continuing possibility of major shifts in monetary velocities and their lack of close predictability even in ordinary circumstances raise questions about the value of employing ranges based on annual forecasts, even if such ranges are not being used to guide policy. In consequence, the Committee may wish to retain the current rationale for its M2 and M3 ranges. In addition, it may also wish to alter the rationale for its debt range to provide a consistent interpretation for all three ranges. This shift would require lowering the debt range, as in alternative III. The range given in this alternative is based on price stability and the historical pattern (apart from the 1980s) of zero trend in the velocity of debt. All of the alternative III ranges are centered around rates of money and credit growth consistent with expansion of nominal GDP at a 3 percent annual rate; growth around that rate would be associated with conditions of true price stability.<sup>5</sup> If the Committee saw a higher growth rate of potential GDP than does the staff, or preferred a small positive trend to

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5. With an estimated remaining measurement error in GDP inflation of around  $\frac{1}{2}$  percentage point, the staff projects growth of measured potential real GDP from 1999 at a  $2\frac{3}{4}$  percent rate.

inflation, abstracting from measurement error, in order to avoid potential risks to policy associated with the zero bound on the nominal funds rate, ranges somewhat above those in alternative III would be appropriate.

(20) Finally, the Committee might prefer to use the current ranges, alternative I, as the provisional ranges for 1999 as well as to reaffirm them for 1998. Such a decision would not preclude paying more attention to the money and credit aggregates as policy indicators during the year. Nonetheless, the Committee may still feel too uncertain about prospective monetary developments, even with somewhat more predictable behavior of velocity in the last few years, to specify in advance the rates at which money growth would become worrisome. As for debt, the slowdown projected by the staff for 1999 would not necessarily suggest lowering the range below its current specification because that setting still readily encompasses the staff projection. Indeed, with the Committee projecting faster nominal GDP growth than the staff, more rapid debt growth would be probable as well, which would undercut even further any need to alter the current range for the debt aggregate.

**Short-run Policy Alternatives**

(21) The data received since the May FOMC meeting suggest that the economy was a little stronger in the first quarter than the staff had expected in the last Greenbook but that its growth has cooled off more this quarter than had been projected. In the staff forecast for this meeting, under an unchanged federal funds rate, growth over the next six quarters will settle in at a little below the rate of increase in the economy's potential, as domestic demand is damped by a further decline in inventory accumulation to a more sustainable level, and by the ebbing of the effects of previous increases in equity prices and declines in bond yields. Despite a modest incline to the jobless rate, unemployment is anticipated to remain below its natural rate over the forecast period. As a consequence, inflation on an underlying basis will pick up, though the rise in published inflation will be muted by technical adjustments.

(22) The choice of the unchanged policy stance of **alternative B** would seem to follow if the Committee found the Greenbook forecast both probable and--despite the projected upcreep in underlying inflation--acceptable. The Committee might be especially willing to live with an outlook in which the most likely outcome was a modest increase in inflation if it saw the risks around that outcome as unbalanced, with the odds of a considerably larger and persistent rise in inflation less than those of a substantial weakening in activity. Even if underlying inflation tendencies turn out to be a little more intense than anticipated, weakness in commodity and import prices and damped inflation expectations should restrain price increases for a time. Thus, the Committee should be able to react sufficiently promptly to any emerging cost pressures in labor markets to limit any incipient increase in inflation and inflation expectations. On the demand side, an important

vulnerability of the staff forecast revolves around developments overseas. That forecast embodies more stable foreign financial markets and a recovery in the Japanese economy starting in the second half of the year. However, so long as conditions in Asian economies and emerging market economies elsewhere stay unsettled and the eventual implementation of effective measures to deal with those conditions remains uncertain, the Committee may see a distinct possibility of substantially greater drag on the U.S. economy from the external sector than is in the staff forecast. Moreover, developments abroad may not be wholly immune to monetary policy actions within the United States, and the Committee might be willing to delay action for a time, at the risk of a possible pickup in inflation, to avoid further complicating the already unsteady situation in Asia and several non-Asian emerging market economies.

(23) Financial market prices appear to embody the anticipation that monetary policy is on hold for some time, so the choice of the unchanged federal funds rate of alternative B should elicit little response in money, capital, or foreign exchange markets. If the economic data reveal, as under the staff projection, a considerable slowing in spending and muted inflation, intermediate- and longer-term yields could edge lower, while equity prices could falter as corporate profits again prove disappointing. This downward pressure on yields, however, may be offset somewhat to the extent that the situation in emerging markets does show signs of stabilizing as in the forecast, perhaps unwinding some of the flight-to-quality effects that Treasury yields now reflect.

(24) The Committee might favor the quarter-point tightening of alternative C if it viewed the updrift in underlying inflation in the staff forecast as unacceptable. Indeed, the

Committee may view the recent upside surprises in core consumer price inflation, coupled with the persistently low level of the unemployment rate, as implying that inflation may advance to even higher rates than the staff has built into its forecast. That risk would be exacerbated if the staff has overestimated the extent of the coming slowdown in spending growth, considering still-accommodative conditions in financial markets, as well as the ability of the economy to expand without intensifying pressures on prices. In that environment, putting off policy action in deference to uncertain conditions in foreign markets may pose too great a risk to the continued good performance of the U.S. economy, and the longer-term health of the global economy itself, particularly as a quick resolution to the problems abroad is probably not in the cards. Given the current high levels of resource utilization, the Committee might believe that delay would only raise the odds that greater, probably more wrenching, policy tightening will be required later.

(25) Tighter policy at this meeting, perhaps involving a move in the federal funds rate to 5½ percent as under alternative C, would catch domestic and international markets unawares. Money market yields would rise at least as much as the federal funds rate, if not more. Intermediate- and longer-term yields could rise substantially as well, particularly if market participants viewed the Federal Reserve's willingness to tighten in the face of ongoing turmoil in Asian and other emerging markets as evidence that U.S. domestic macroeconomic imbalances were seen to be large and that further restraint might well be in store. By contrast, if the market viewed the tightening as a limited mid-course correction--perhaps guided by the wording of the press release announcing the action--the sell-off in capital markets might be modest. In any event, equity prices would fall, as investors reconciled

themselves to both a higher rate on competing assets and a slower expansion of profits in the future. Similarly, the dollar would tend to appreciate. If the action were not viewed as presaging additional tightening in the United States and other industrial countries, the rise in the dollar and pressure on foreign interest rates would be limited. With the exchange market remaining skittish, large gains in the dollar against some currencies and further deterioration in the financial markets of emerging market economies could not be ruled out.

(26) Consistent with the staff's projections of the annual growth of the monetary and debt aggregates that were discussed in the previous section, some slowing in the expansion of M2, M3, and debt is anticipated over the remainder of this year. The staff outlook, which assumes the maintenance of the unchanged federal funds rate of alternative B, projects that M2 and M3 will grow at rates of about 4¼ percent and 7 percent respectively over the third and fourth quarters, considerably below their pace so far this year, and that the growth of domestic nonfinancial debt will edge down a notch. For the most part, this slowing in the expansion of the money and debt aggregates mirrors the expected step-down in the growth of nominal GDP in the second half of the year relative to the first. In addition, the growth of the monetary aggregates should be held down by a waning or reversal of some of the special factors that boosted them early in the year. Total debt growth should slow as the paydown of securities by the federal government accelerates slightly on a seasonally adjusted basis and borrowing by nonfederal sectors edges down. Maintenance of the slightly higher short-term interest rates of alternative C would lower these growth rates only slightly over this year and still leave both M2 and M3 above their annual ranges.

Directive Language

(27) Presented below for the members' consideration is draft wording relating to the Committee's ranges for the aggregates in 1998-1999 and the operational paragraph for the intermeeting period.

1998-1999 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 1997 to the fourth quarter of 1998. [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 1997 TO THE FOURTH QUARTER OF 1998.] 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 1999, THE COMMITTEE AGREED ON TENTATIVE RANGES FOR MONETARY GROWTH, MEASURED FROM THE FOURTH QUARTER OF 1998 TO THE FOURTH QUARTER OF 1999, 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 1999. 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**

In the implementation of policy for the immediate future, the Committee seeks conditions in reserve markets consistent with ~~maintaining~~/INCREASING/DECREASING the federal funds rate ~~at~~/TO an average of around \_\_\_ ~~5-1/2~~ percent. In the context of the Committee's long-run objectives for price stability and sustainable economic growth, and giving careful consideration to economic, financial, and monetary developments, a somewhat/SLIGHTLY higher federal funds rate would/MIGHT or a SOMEWHAT/slightly lower federal funds rate WOULD/might be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with ~~considerable moderation in~~ the MODERATE growth in M2 and M3 over coming months.



	M2		M3		Debt	
	Alt. B	Alt. C	Alt. B	Alt. C	All Alternatives	
<b>Monthly Growth Rates</b>						
January 98	7.6	7.6	10.6	10.6	5.9	
February	9.6	9.6	9.4	9.4	6.7	
March	8.3	8.3	14.8	14.8	6.5	
April	9.5	9.5	10.8	10.8	4.9	
May	2.8	2.8	6.3	6.3	4.5	
June	5.0	5.0	6.1	6.1	4.7	
July	4.7	4.3	7.7	7.5	4.4	
August	5.1	4.3	7.9	7.5	4.0	
September	5.3	4.5	7.9	7.5	4.8	
October	3.4	2.7	5.8	5.5	5.7	
November	3.1	2.6	5.8	5.6	4.9	
December	2.9	2.5	5.8	5.6	4.8	
<b>Quarterly Averages</b>						
97 Q3	5.6	5.6	8.2	8.2	4.5	
97 Q4	7.1	7.1	10.0	10.0	5.8	
98 Q1	8.0	8.0	11.2	11.2	6.2	
98 Q2	7.3	7.3	10.1	10.1	5.4	
98 Q3	4.7	4.3	7.3	7.1	4.5	
98 Q4	3.9	3.2	6.5	6.2	5.1	
<b>Growth Rate</b>						
From	To					
Jun-98	Dec-98		6.9	6.6	4.8	
97 Q4	Jun-98	7.3	7.3	10.2	10.2	5.7
97 Q4	Dec-98	5.9	5.6	8.9	8.7	5.4
95 Q4	96 Q4	4.6	4.6	6.8	6.8	5.3
96 Q4	97 Q4	5.7	5.7	8.8	8.8	5.0
97 Q4	98 Q4	6.1	5.8	9.1	8.9	5.4
1998 Annual Ranges:		1.0 to 5.0	2.0 to 6.0			

Chart 8  
Actual and Projected M2

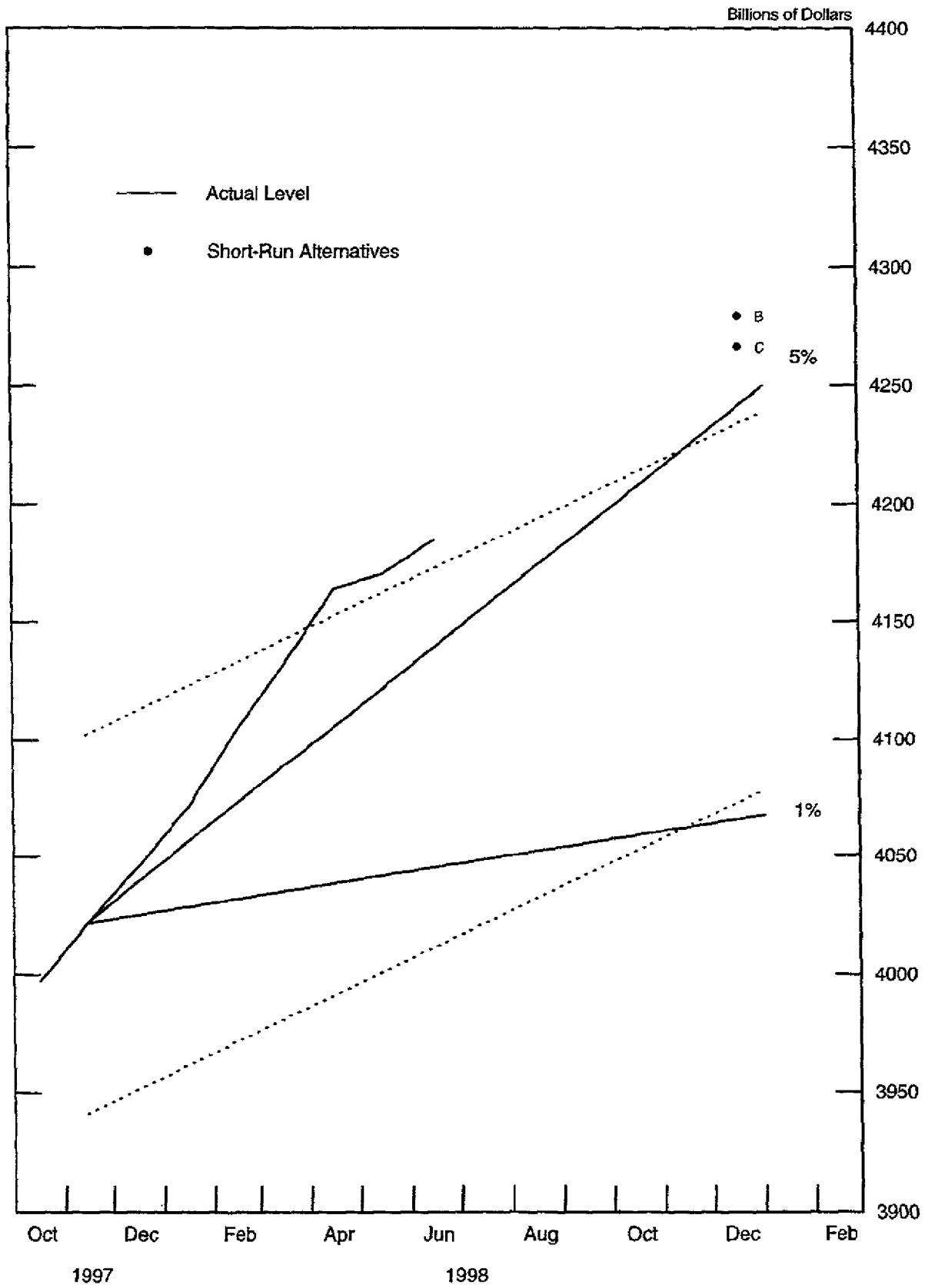


Chart 9

# Actual and Projected M3

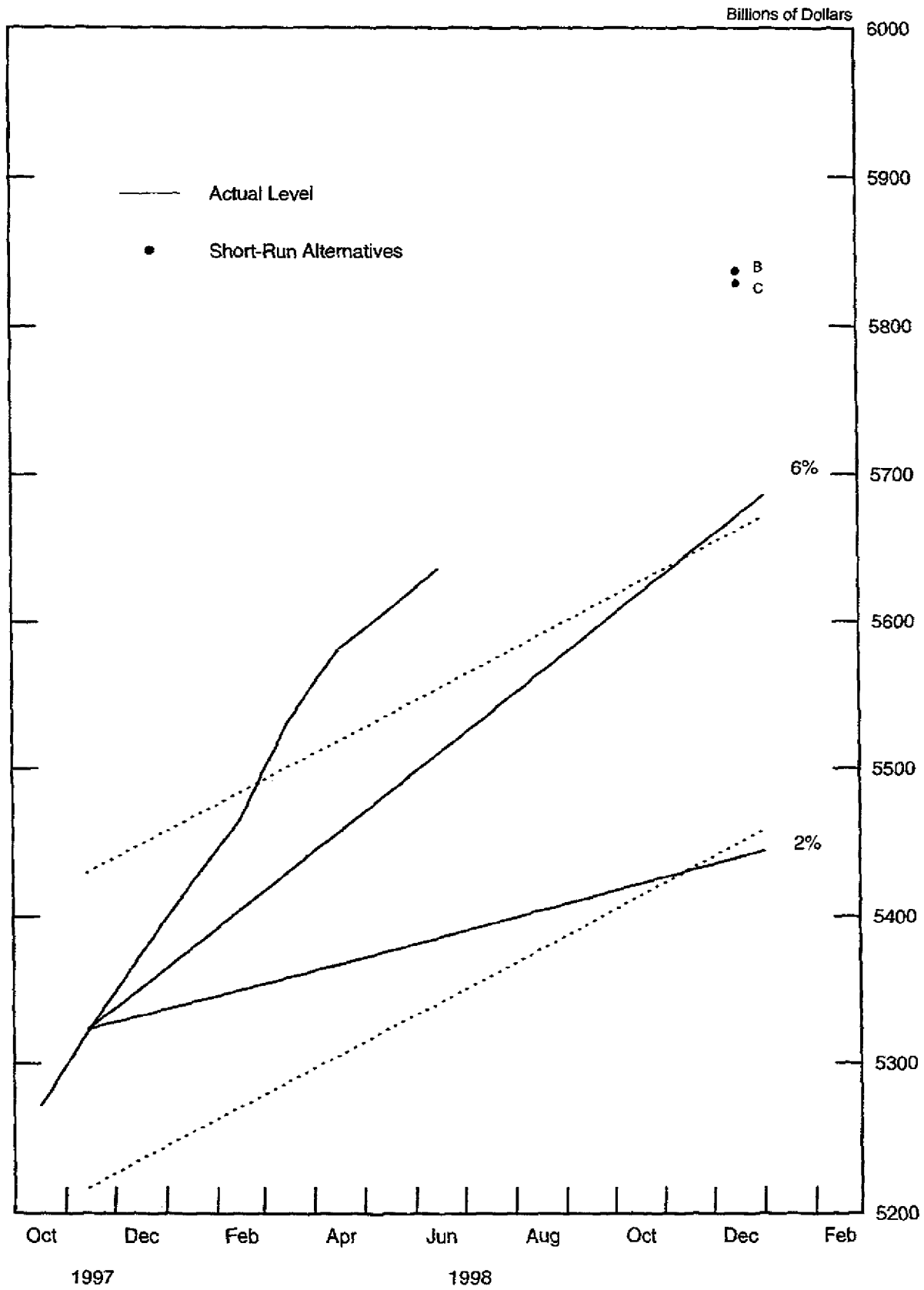
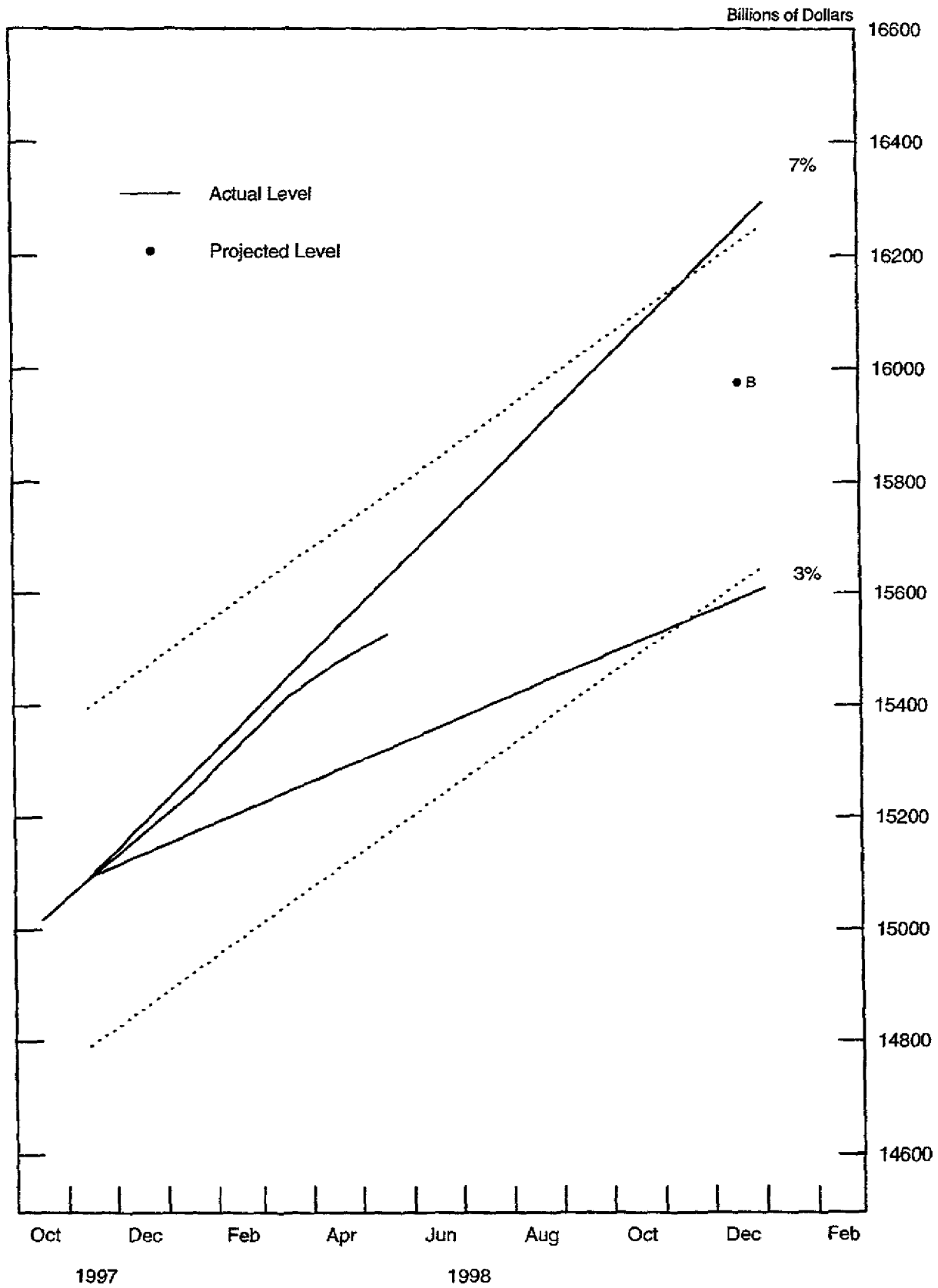


Chart 10

### Actual and Projected Debt



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>	
QIV 1979 - QIV 1980	4 - 6.5	(7.3) <sup>23</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>24</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 <sup>9</sup>	(5.2)	6 - 9	(7.7)	6 - 9	(10.5)	8 - 11	(13.4)
QIV 1984 - QIV 1985	3 - 8	(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 <sup>14</sup>	n.s.	(0.9)	1 - 5	(7.3)	2 - 6	(10.2)	3 - 7	(5.8)

**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 1997 QIV to June 1998 and for nonfinancial debt are from 1997 QIV to May 1998.

6/25/98 (MARP)

**SELECTED INTEREST RATES**  
(percent)

June 29, 1998

	Short-Term						Long-Term									
	federal funds	Treasury bills secondary market			CDs secondary market	comm. paper	U.S. government constant maturity yields				Indexed yields		corporate A-utility recently offered	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	
97 -- High	5.80	5.27	5.40	5.66	5.82	5.90	6.64	6.79	6.92	7.12	3.67	3.67	8.27	6.14	8.18	5.91
-- Low	5.05	4.85	4.99	5.07	5.34	5.37	5.69	5.72	5.74	5.90	3.52	3.27	7.05	5.40	6.99	5.45
98 -- High	5.68	5.24	5.24	5.23	5.74	5.71	5.70	5.72	5.75	6.05	3.93	3.77	7.19	6.52	7.22	5.71
-- Low	5.32	4.91	4.97	4.92	5.50	5.44	5.28	5.32	5.45	5.65	3.70	3.65	6.86	5.25	6.89	5.50
Monthly																
Jun 97	5.56	4.93	5.13	5.38	5.66	5.60	6.24	6.38	6.49	6.77	--	3.60	7.85	5.79	7.69	5.69
Jul 97	5.52	5.05	5.12	5.24	5.60	5.56	6.00	6.12	6.22	6.51	3.64	3.64	7.62	5.62	7.50	5.57
Aug 97	5.54	5.14	5.19	5.27	5.60	5.55	6.06	6.16	6.30	6.58	3.57	3.57	7.67	5.68	7.48	5.55
Sep 97	5.54	4.95	5.09	5.23	5.60	5.49	5.98	6.11	6.21	6.50	3.61	3.58	7.58	5.64	7.43	5.55
Oct 97	5.50	4.97	5.09	5.17	5.65	5.49	5.84	5.93	6.03	6.33	3.60	3.57	7.44	5.63	7.29	5.51
Nov 97	5.52	5.14	5.17	5.17	5.74	5.53	5.76	5.80	5.88	6.11	3.55	3.54	7.24	5.59	7.21	5.49
Dec 97	5.50	5.16	5.24	5.24	5.80	5.78	5.74	5.77	5.81	5.99	3.63	3.60	7.10	5.44	7.10	5.52
Jan 98	5.56	5.04	5.03	4.98	5.54	5.46	5.38	5.42	5.54	5.81	3.73	3.68	6.97	5.32	6.99	5.54
Feb 98	5.51	5.09	5.07	5.04	5.54	5.47	5.43	5.49	5.57	5.89	3.72	3.66	7.02	5.33	7.04	5.60
Mar 98	5.49	5.03	5.04	5.11	5.58	5.51	5.57	5.61	5.65	5.95	3.79	3.71	7.11	5.41	7.13	5.69
Apr 98	5.45	4.95	5.06	5.10	5.58	5.49	5.58	5.61	5.64	5.92	3.86	3.75	7.10	5.44	7.14	5.67
May 98	5.49	5.00	5.14	5.16	5.59	5.49	5.61	5.63	5.65	5.93	3.92	3.75	7.16	5.45	7.14	5.69
Weekly																
Apr 24 98	5.38	4.94	5.06	5.12	5.58	5.48	5.61	5.65	5.67	5.95	3.85	3.73	7.19	5.47	7.15	5.64
May 1 98	5.42	4.91	5.09	5.17	5.60	5.49	5.69	5.72	5.75	6.02	3.91	3.77	7.19	5.52	7.22	5.69
May 8 98	5.32	4.97	5.11	5.15	5.58	5.48	5.62	5.63	5.68	5.96	3.91	3.75	7.19	5.49	7.14	5.65
May 15 98	5.57	5.01	5.16	5.18	5.59	5.49	5.64	5.67	5.70	5.98	3.93	3.75	7.18	5.48	7.19	5.71
May 22 98	5.53	5.08	5.18	5.17	5.60	5.49	5.60	5.63	5.64	5.92	3.93	3.76	7.18	5.42	7.10	5.70
May 29 98	5.51	4.95	5.15	5.15	5.59	5.50	5.56	5.57	5.57	5.83	3.92	3.74	7.04	5.39	7.07	5.70
Jun 5 98	5.58	4.95	5.11	5.14	5.59	5.50	5.55	5.57	5.57	5.80	3.90	3.71	7.06	5.40	7.05	5.68
Jun 12 98	5.47	5.00	5.14	5.14	5.59	5.49	5.52	5.53	5.51	5.72	3.89	3.71	6.94	5.32	7.04	5.71
Jun 19 98	5.55	5.04	5.12	5.12	5.59	5.52	5.49	5.51	5.47	5.67	3.86	3.71	6.96	5.36	6.94	5.68
Jun 26 98	5.46	4.93	5.11	5.13	5.60	5.53	5.52	5.50	5.46	5.65	3.88	3.73	6.92	5.36	6.96	5.68
Daily																
Jun 10 98	5.53	5.01	5.17	5.16	5.58	5.49	5.54	5.55	5.51	5.70	3.90	3.71	--	--	--	--
Jun 11 98	5.62	4.97	5.11	5.10	5.59	5.50	5.44	5.46	5.44	5.65	3.88	3.70	--	--	--	--
Jun 12 98	5.53	4.99	5.10	5.08	5.59	5.50	5.43	5.43	5.43	5.66	3.88	3.71	--	--	--	--
Jun 15 98	5.78	4.98	5.10	5.06	5.58	5.53	5.41	5.42	5.38	5.61	3.88	3.70	--	--	--	--
Jun 16 98	5.55	5.06	5.11	5.11	5.59	5.51	5.47	5.49	5.45	5.65	3.86	3.73	--	--	--	--
Jun 17 98	5.55	5.09	5.15	5.16	5.60	5.51	5.54	5.57	5.54	5.74	3.86	3.70	--	--	--	--
Jun 18 98	5.54	5.05	5.13	5.15	5.60	5.52	5.53	5.55	5.50	5.70	3.85	3.70	--	--	--	--
Jun 19 98	5.36	5.03	5.11	5.12	5.60	5.51	5.50	5.52	5.47	5.67	3.85	3.70	--	--	--	--
Jun 22 98	5.42	4.99	5.14	5.13	5.60	5.53	5.50	5.52	5.46	5.66	3.86	3.71	--	--	--	--
Jun 23 98	5.36	4.97	5.13	5.13	5.60	5.53	5.51	5.51	5.45	5.64	3.86	3.71	--	--	--	--
Jun 24 98	5.54	4.91	5.10	5.13	5.60	5.53	5.51	5.48	5.46	5.66	3.88	3.72	--	--	--	--
Jun 25 98	5.64	4.89	5.09	5.13	5.60	5.54	5.53	5.50	5.46	5.66	3.89	3.73	--	--	--	--
Jun 26 98	5.53 <sup>p</sup>	4.87	5.08	5.12	5.60	--	5.53	5.49	5.46	5.64	3.91	3.76	--	--	--	--

NOTE: Weekly data for columns 1 through 12 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. Columns 13 and 14 are 1-day quotes for Friday or Thursday, respectively. Column 14 is the Bond Buyer revenue index. 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 29, 1998

Period	Money stock measures and liquid assets					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>								
Annually (Q4 to Q4)								
1995	-1.6	3.9	6.6	15.4	6.1	4.4	5.8	5.4
1996	-4.5	4.6	8.7	15.3	6.8	3.8	5.9	5.3
1997	-1.2	5.7	8.4	19.6	8.8	0.7	6.5	5.0
<b>Quarterly(average)</b>								
1997-Q3	0.3	5.6	7.6	16.8	8.2	0.0	6.1	4.5
Q4	0.9	7.1	9.4	19.3	10.0	0.4	7.6	5.8
1998-Q1	3.0	8.0	9.9	21.1	11.2	0.0	8.3	6.2
Q2 pe	4	7½	9½	18½	10			
<b>Monthly</b>								
1997-June	1.2	4.8	6.1	7.5	5.4	-2.8	4.6	2.7
July	0.2	4.5	6.1	25.9	9.5	1.5	6.2	5.0
Aug.	6.2	9.9	11.2	13.6	10.8	1.3	6.7	5.3
Sep.	-8.5	6.6	12.3	16.3	9.0	0.8	6.6	5.2
Oct.	-1.8	6.2	9.1	16.1	8.5	0.0	8.0	6.0
Nov.	8.2	7.5	7.3	25.3	11.8	-0.4	8.4	6.2
Dec.	7.6	7.0	6.8	25.3	11.5	1.5	7.5	6.0
1998-Jan.	-2.6	7.6	11.3	19.9	10.6	-0.5	8.0	5.9
Feb.	3.1	9.6	11.9	8.7	9.4	-1.2	9.4	6.7
Mar.	5.1	8.3	9.4	34.5	14.8	1.4	8.1	6.5
Apr.	-0.2	9.5	12.9	14.5	10.8	-2.7	7.4	4.9
May	-3.1	2.8	4.8	16.9	6.3			
June pe	-4	5	8	9	6			
<b>Levels (\$billions)</b>								
<b>Monthly</b>								
1998-Jan.	1073.7	4071.3	2997.6	1351.1	5422.4	3796.8	11448.4	15245.2
Feb.	1076.5	4103.9	3027.4	1360.9	5464.8	3792.9	11537.9	15330.8
Mar.	1081.1	4132.3	3051.2	1400.0	5532.3	3797.3	11616.1	15413.4
Apr.	1080.9	4165.0	3084.1	1416.9	5581.9	3788.9	11688.0	15476.9
May	1078.1	4174.6	3096.5	1436.8	5611.4			
<b>Weekly</b>								
1998-May	4							
11	1085.3	4170.7	3085.4	1426.7	5597.4			
18	1071.4	4167.6	3096.1	1438.0	5605.6			
25	1075.9	4169.9	3094.0	1436.7	5606.6			
	1078.5	4170.0	3091.5	1439.5	5609.5			
June								
1	1087.4	4187.6	3100.3	1437.2	5624.9			
8p	1073.1	4183.7	3110.7	1453.7	5637.4			
15p	1075.0	4192.2	3117.2	1448.2	5640.4			

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 28, 1998

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	10,932	900	10,032	390	5,368	1,432	2,529	1,776	7,941	1,003	16,970	-1,023
1996	9,901	---	9,901	524	3,898	1,116	1,855	2,015	5,179	409	14,670	5,351
1997	9,147	---	9,147	5,748	20,299	3,101	5,827	1,996	32,979	1,540	40,586	-64
1997 --Q1	---	---	---	818	3,985	---	1,117	607	5,314	230	5,084	-11,149
--Q2	4,602	---	4,602	877	5,823	1,233	1,894	376	9,451	498	13,554	6,771
--Q3	---	---	---	644	2,697	---	---	598	2,744	571	2,173	-4,493
--Q4	4,545	---	4,545	3,409	7,794	1,868	2,816	416	15,471	241	19,775	8,807
1998 --Q1	---	2,000	-2,000	---	3,763	283	743	478	4,311	60	2,251	-15,420
1997 June	596	---	596	494	2,797	499	906	---	4,696	474	4,818	7,771
July	---	---	---	---	---	---	---	598	-598	287	-885	-11,981
August	---	---	---	---	---	---	---	---	---	179	-179	7,669
September	---	---	---	644	2,697	---	---	---	3,341	105	3,236	-181
October	---	---	---	---	---	770	648	416	1,032	215	787	-4,412
November	---	---	---	1,462	3,323	485	954	---	6,224	26	6,198	5,519
December	4,545	---	4,545	1,947	4,471	613	1,214	---	6,245	---	12,790	7,700
1998 January	---	2,000	-2,000	---	---	---	---	478	-478	---	-2,478	-21,985
February	---	---	---	---	---	---	---	---	---	10	-10	4,251
March	---	---	---	---	3,763	283	743	---	4,789	50	4,739	2,314
April	3,550	---	3,550	1,369	2,993	495	---	286	4,571	74	8,047	9,405
May	---	---	---	---	---	---	---	---	---	---	---	-14,808
Weekly												
March 4	---	---	---	---	---	---	---	---	---	---	---	-9,275
11	---	---	---	---	3,763	---	---	---	3,763	50	3,713	5,512
18	---	---	---	---	---	---	---	---	---	---	---	-5,952
25	---	---	---	---	---	283	743	---	1,026	---	1,026	2,943
April 1	---	---	---	---	---	---	---	---	---	---	---	-3,213
8	---	---	---	1,369	---	---	---	---	1,369	---	1,369	-1,551
15	3,550	---	3,550	---	1,113	495	---	286	1,322	60	4,812	2,952
22	---	---	---	---	1,880	---	---	---	1,880	---	1,880	7,454
29	---	---	---	---	---	---	---	---	---	14	-14	15,594
May 6	---	---	---	---	---	---	---	---	---	---	---	-32,680
13	---	---	---	---	---	---	---	---	---	---	---	-38
20	---	---	---	---	---	---	---	---	---	---	---	9,170
27	---	---	---	---	---	---	---	---	---	---	---	-4,173
June 3	---	---	---	---	---	---	---	---	---	---	---	4,462
10	---	---	---	---	---	---	---	---	---	---	---	-7,867
17	---	---	---	---	---	---	---	---	---	---	---	17,411
24	---	---	---	---	---	---	---	---	---	---	---	4,090
Memo: LEVEL (bil. \$) <sup>6</sup>												
June 24			215.7	60.9	97.8	43.0	50.8		242.5		458.8	-16.7

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
0.2	0.1	0.2	0.0	0.5

June 24