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

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MONETARY POLICY ALTERNATIVES									

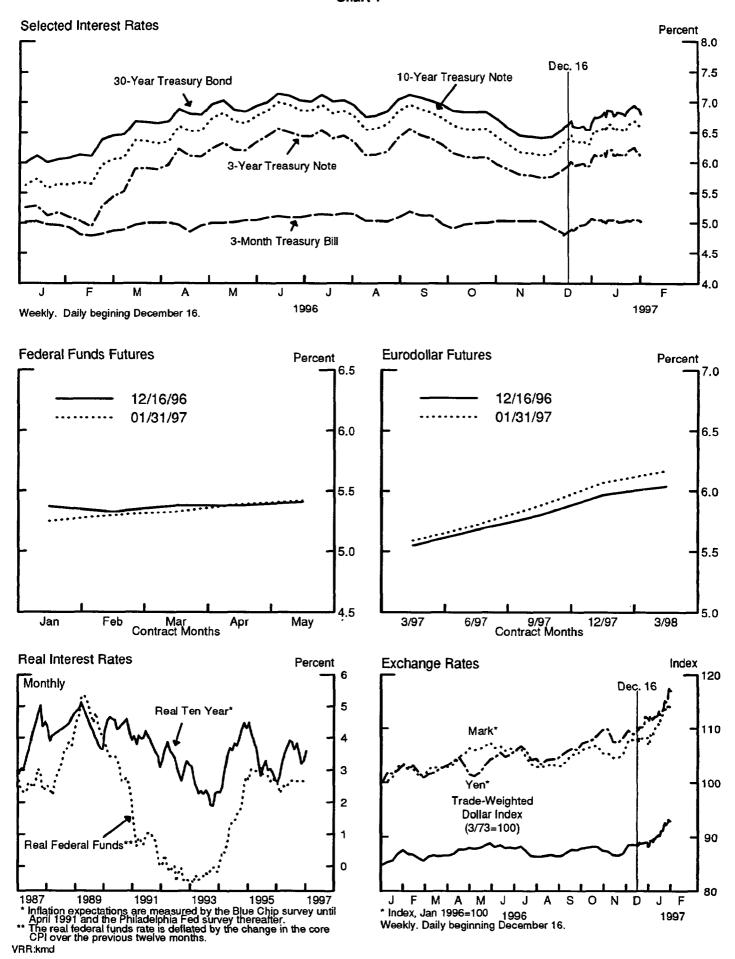
Prepared for the Federal Open Market Committee

By the staff Board of Governors of the Federal Reserve System

MONETARY POLICY ALTERNATIVES

Recent Developments

- (1) Since the Committee meeting on December 17, the federal funds rate has averaged close to its intended level of 5-1/4 percent. Pressures in the money market built with the approach of the turn of the year; in the event, the ample provision of reserves through temporary transactions held the effective federal funds rate to 6-1/4 percent on New Year's Eve. In the maintenance period ending January 29, operating balances of depository institutions at Reserve Banks fell to an average of \$17-3/4 billion, well below their lowest level in the turbulent period of early 1991, owing to the effects of sweep activity on required reserves amplified by seasonal declines in reserve demands. Nonetheless, the reserve market generally has remained tranquil in recent weeks, with day-to-day and intraday variations in the federal funds rate not discernibly affected.
- (2) Other interest rates rose 5 to 15 basis points over the intermeeting period (Chart 1). Data on economic activity came in on the firm side of market expectations, leading many analysts to boost their forecasts of near-term growth. But prices and overall labor compensation generally continued to behave better than many market participants had expected, limiting the uptick in rates. On balance, the configuration of futures rates suggests that market participants have built in little likelihood that the System will tighten policy over the first half of 1997 (chart). Survey measures of long-term inflation expectations have not moved much of late, implying that most of the runup in nominal rates since November has probably reflected an increase in real terms (chart). Still, real long-term rates remain below



the peak posted four months ago.¹ Despite the apparent rise in real yields over the intermeeting period, major equity indexes gained almost 10 percent. The majority of earnings reports for the fourth quarter have proven favorable, and earnings growth prospects looking one year ahead were mostly revised even further into double-digit territory by stock analysts.

sharp contrast with declines in interest rates in many foreign markets, contributing to a 4-3/4 percent surge in the foreign exchange value of the dollar on a weighted-average basis over the intermeeting period. In Europe, weaker-than-expected economic data fostered yield declines of 5 to 25 basis points; in Japan, the announcement of greater-than-expected fiscal restraint led to a 5 basis point decline in yields. The degree of dollar appreciation--6-1/4 percent against the yen and 5-1/2 percent against the DM and other ERM currencies--seems larger than can be explained by relative interest rate movements alone, perhaps reflecting increased risk premiums in response to the growing pessimism about European and Japanese economies. In Japan, renewed concerns about the financial system and the economy sparked a sharp decline in the stock market, particularly bank stocks. In Canada, by contrast, readings on economic activity came in on the strong side; yields there rose 10 basis points, and the U.S. dollar depreciated 1-1/4 percent. In mid-January, Mexico repaid ahead of schedule its remaining \$3-1/2 billion outstanding debt to the Treasury's Exchange Stabilization Fund.

¹ The real yield on the Treasury's new issue of ten-year indexed debt, which elicited considerable interest at its auction earlier this week, is currently 3.35 percent. Relating that measure to either survey-based or ex post calculations of real returns, however, will prove problematic until additional evidence on the behavior of real yields on indexed securities accumulates.

. The Desk did

not intervene.

(4) Recent data suggest that the monetary aggregates ended the old year and opened the new on a faster growth track than the staff had anticipated at the last Committee meeting, likely owing in part to the unexpected strength in nominal spending late last year. The decline in interest rates since September, on net, also may have contributed to the strength of M2 demand by reducing its opportunity cost, a notion supported by continuing anemic noncompetitive tenders at Treasury auctions. December's expansion of M2, at a 7-1/2 percent rate, pulled that aggregate's growth for 1996 to 4-1/2 percent, in the upper portion of its 1-to-5 percent range.² In January, the growth of M2 slowed, but only to a 5-1/2 percent rate.³ This strength in M2 apparently did not come at the expense of capital market mutual funds, which still seem to be attracting healthy inflows. The increase of M3 in the last month of 1996, at an 11-1/4 percent rate, put its growth for the year at 7 percent, well above its 2-to-6 percent annual range. The expansion of the broader aggregate slowed in January to a 6-3/4

² The data on the monetary aggregates in this bluebook incorporate revisions from the annual benchmark and seasonal review. Over the four quarters of 1996, these revisions left the annual growth of M2 unchanged and raised that of M3 by 0.3 percentage point. These data are scheduled to be published in early February and until that time are strictly confidential.

³ M1 expanded at a rate of 1 percent in December but then contracted at a rate of 3-3/4 percent in January. Adjusting for the initial effects of sweep activity, which has been relatively steady in recent months, M1 increased at rates of 9-1/4 percent and 2-1/4 percent in December and January, respectively. The monetary base rose at a rate of 9-1/4 percent in December, but it dropped at a 5-3/4 percent rate in January. (The comparable figures adjusting for sweeps are 11 percent and -4 percent.)

percent rate. With bank credit growth remaining robust over the past few months, bank funding needs were sizable. Branches and agencies of foreign banks have been particularly active lenders, and these depositories have increasingly relied on domestic rather than foreign financing to meet those needs, issuing large time deposits in volume.

(5) The growth of the debt of nonfederal sectors edged higher in the closing months of 1996. Both open markets and financial intermediaries have continued to be quite accommodative to most borrowers. Market risk spreads have remained narrow, and banks are said to be quite aggressive in the pursuit of even highly leveraged business borrowers. In the recent survey of senior loan officers, banks noted a slight easing of standards and a more significant easing of terms for business loans. In contrast, most loan officers reported that they had tightened standards on credit card accounts and other consumer loans. However, while consumer lending by banks slowed in the fourth quarter, incoming data suggest a rebound in recent weeks, and both banks and finance companies have increasingly marketed home equity loans as a ready substitute for consumer credit, at least to some households. Credit demands by the federal government have remained subdued, reflecting the continuing low budget deficit. On net, total borrowing by nonfinancial sectors was well maintained in the final months of 1996, with debt expanding over the four quarters of 1996 at 5-1/4 percent, a touch above the midpoint of its 3-to-7 percent annual range.

MONEY, CREDIT, AND RESERVE AGGREGATES

(Seasonally adjusted annual rates of growth)

	Dec.	Jan.	95:Q4 to 96:Q4	96:Q4 to Jan.
Money and Credit Aggregates		••••	20.41	-
M 1	1.1	-3.8	-4.6	-1.6
Adjusted for sweeps	9.3	2.3	5.3	5.7
M2	7.4	5.6	4.6	6.4
M3	11.3	6.8	6.9	8.4
Domestic nonfinancial debt	4.8		5.3	
Federal	2.9		3.8	
Nonfederal	5.4		5.8	
Bank Credit	7.1	15.1	4.0	11.5
Adjusted ¹	4.1	10.6	4.6	7.6
Reserve Measures				
Nonborrowed Reserves ²	8.5	-17.6	-11.4	-6.8
Total Reserves	7.0	-20.1	-11.4	-8.8
Adjusted for sweeps	21.0	-4.8	8.3	6.5
Monetary Base	9.2	-5.7	3.8	1.2
Adjusted for sweeps	11.1	-4.0	6.4	3.1
Memo: (millions of dollars)				
Adjustment plus seasonal				
borrowing	155	48		
Excess reserves	1424	1205	*-	

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

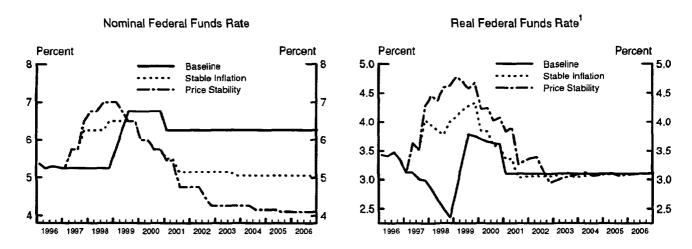
NOTE: Monthly reserve measures, including excess reserves and borrowing, are calculated by prorating averages for two-week reserve maintenance periods that overlap months. Reserve data incorporate adjustments for discontinuities associated with changes in reserve requirements. These data incorporate revisions associated with the annual benchmark and seasonal review and are strictly confidential until released in early February.

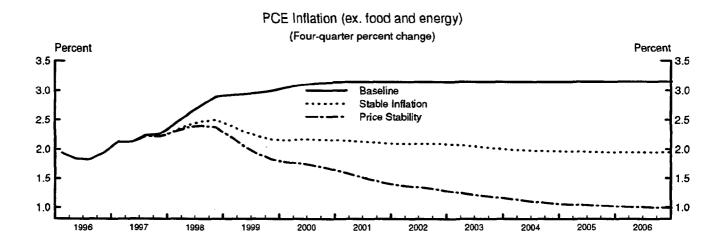
^{2.} Includes "other extended credit" from the Federal Reserve.

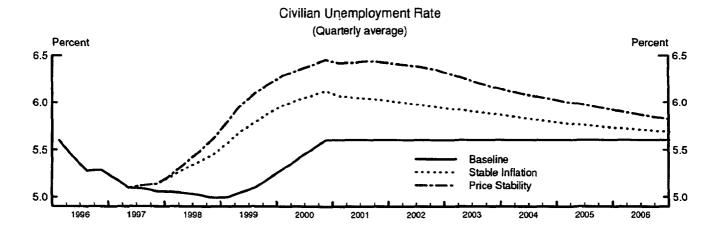
Long-Run Scenarios

- (6) To provide a longer-run perspective on the strategic issues confronting the Committee, this section presents econometric model simulations designed to examine alternative monetary policies as well as the effects of certain shocks to the economy. The three policy scenarios considered first are built around the Greenbook forecast, using the staff's new macroeconometric model to extend that forecast and to derive differences resulting from alternative policies. These scenarios incorporate the same assumptions regarding underlying macroeconomic factors; notably, the full-employment budget for the federal government is on path to balance by early in the next century and the NAIRU is 5.6 percent. Other sets of scenarios consider: (1) a favorable shock to productivity growth, (2) an increase in the NAIRU, and (3) a significant decline in the stock market. The model's dynamic properties are importantly affected by the level and changes in the public's expectations about key economic variables--such as the rate of inflation likely to prevail in the long run. Because these expectations adapt slowly and nominal wages adjust sluggishly, the sacrifice ratio over a period of five years is about 2--in line with the historical average for the U.S. economy. That is, reducing inflation by 1 percentage point requires unemployment to exceed the NAIRU by the equivalent of 1 percentage point for two years.
- (7) The <u>baseline strategy</u>, shown by the solid lines in Chart 2, is an extension of the Greenbook forecast. By the end of the Greenbook forecast, the disequilibrium in policy and the economy has become quite evident—the economy is producing beyond its sustainable potential and the stance of policy is too easy to correct the situation and forestall a continuous

Chart 2
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.

Note: Data points are plotted at the midpoint of each period.

rise in core inflation.⁴ Under the baseline strategy, the Committee caps the rise in inflation by tightening policy after 1998 by enough to bring the unemployment rate quickly up to the NAIRU. This requires the federal funds rate to be raised by around 1-1/2 percentage points, so that the real funds rate overshoots its equilibrium for a time.⁵ With this strategy, the Committee would accept whatever rate of inflation that developed while the economy was operating beyond its potential, and, as a consequence, core PCE inflation would ratchet up from an average of 2 to 2-1/2 percent in recent years to a little over 3 percent.

(8) Some pickup in core inflation appears to be unavoidable in the near term given the staff's assessment of the cyclical position of the economy, but the <u>stable inflation</u> strategy limits that rise and ultimately brings inflation back down to around its recently prevailing rate. This entails a near-term tightening, with the nominal funds rate rising to 6-1/2 percent by the end of 1998. The effects of the unemployment rate remaining below the NAIRU until early 1999 are tempered in the near term by the sharp slowing in real growth, which keeps inflation expectations damped in the model (similar in result to a "speed effect" in the

⁴ In the charts, inflation is measured by the core PCE chain-weight price index, and past movements in this index are used to proxy for inflation expectations in calculations of the real funds rate. This index has a steeper upward trajectory over the next few years than do many other broad measures of prices, because it: (1) excludes food and energy prices, which are moderating; (2) is unaffected by the changes in BLS calculations of the CPI; and (3) unlike a broad GDP price measure, includes import prices, which are damped at first and boosted later by the actual and assumed gyrations of the dollar. We think it gives a clearer view of the underlying inflation tendencies in the various scenarios, but its application in calculating the real interest rate may exaggerate the projected drop in real rates in 1997 and 1998, especially if the public forms its expectations based on a broader set of prices than in this core measure. The real funds rates shown in the charts are higher than those calculated using the CPI, but would be higher through history as well because inflation as measured by the PCE index on average has run ½ percentage point below the CPI.

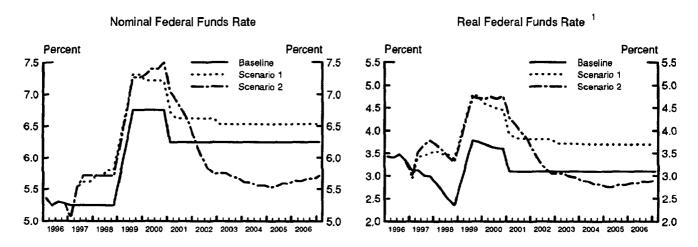
⁵ That equilibrium itself is lower toward the end of the simulation than at present owing primarily to additional fiscal consolidation.

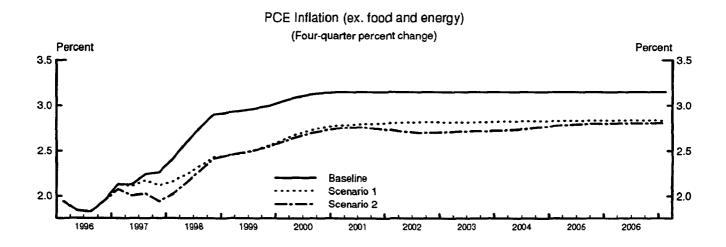
Phillips curve), and by the rise in the dollar associated with higher interest rates. These effects dissipate, however, and ultimately the real interest rate and the unemployment rate must be kept above their natural levels for some time to offset the underlying inflationary pressures built up as the economy operated above potential from 1996 through 1998.

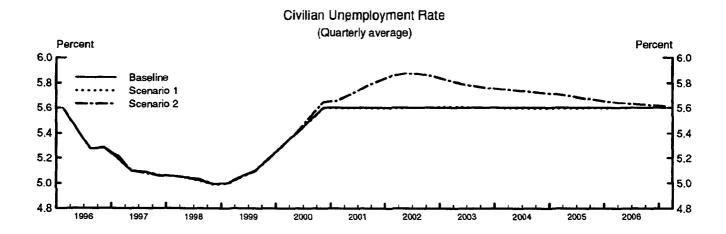
- (9) A strategy involving a sharper tightening of policy over the next two years, with the nominal funds rate rising soon and reaching 7 percent in late 1998, would achieve price stability in seven years or so. In this scenario, a higher real funds rate is sustained for longer than under the stable inflation strategy to produce enough slack in the economy to keep downward pressures on wages and prices. The sizable output loss reflects the slow adaptation of expectations noted above. In the absence of empirical evidence that the cost of disinflation from moderate levels is reduced by an aggressive anti-inflation program or by announced inflation targets, we have included no special "credibility" effects from the Committee embarking on a deliberate strategy to achieve price stability. Credibility for price stability does develop--but "in the old fashioned way," by earning it through achieving stable prices. This simulation also makes no allowance for enhanced productivity as price stability is approached.
- (10) Chart 3 considers the effects of higher productivity on inflation, in circumstances in which the unemployment rate is held to its baseline--at least initially.⁶ In scenario 1, productivity growth is permanently ½ percentage point higher. Ultimately, the higher productivity growth will feed through to faster growth in real wages, which takes place through some combination of lower inflation and more rapid increases in nominal wages. In

⁶ This set of simulations responds to a request from President Jordan, who asked at the December FOMC meeting about what type of shock to productivity growth would be needed to attain price stability without opening an output gap.

Chart 3
Shocks to Productivity Growth







 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.

Note: Data points are plotted at the midpoint of each period.

the model, prices react faster than wages to changes in supply and demand, so the boost to real wage growth occurs mainly through lower price inflation. In effect, the higher productivity initially boosts profit margins, firms respond by trying to sell more, and their competition for market share results in lower prices. As shown by the dotted line in the middle panel, price inflation ends lower than it started by about 1/3 percentage point. Nominal wage inflation ends higher by 1/6 percentage point, bringing the increase in real wage growth to ½ percentage point, matching the increase in productivity growth. Note that to achieve this inflation outcome, the Federal Reserve must tighten monetary policy. The productivity shock stimulates aggregate demand by raising the marginal product of capital—thereby boosting investment demand. In the long run, real interest rates rise by about the ½ percentage point increase in productivity growth (top right panel). But in the short run a pronounced investment boom occurs, and the Committee must lean against this strength in demand to keep the unemployment rate along the baseline path, by raising the federal funds rate to over 7 percent.

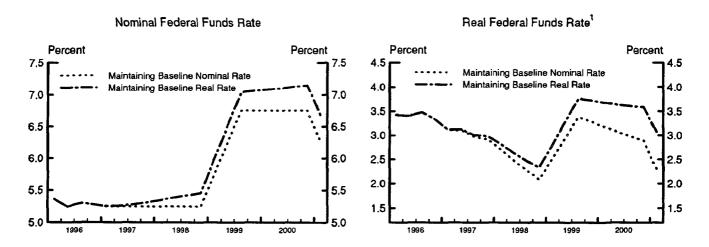
(11) If the shock to productivity growth instead is temporary--so that the *growth* of productivity returns to its old rate, though the *level* of productivity remains permanently higher--inflation would revert to its previous rate if monetary policy continues to hold the unemployment rate along the baseline. In <u>scenario 2</u>, the productivity growth shock ceases at the beginning of 2001. As productivity growth slows, firms attempt to maintain profit margins by raising prices more rapidly in the face of nominal wages that continue to climb at

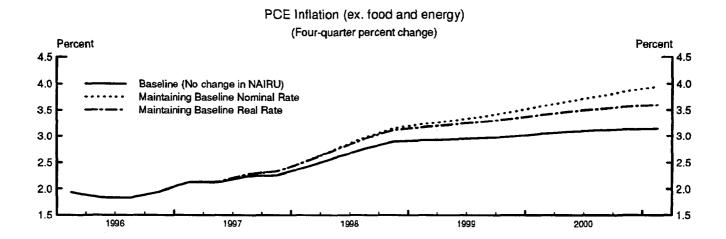
⁷ Consequently, with the unemployment rate following the baseline path, productivity growth would need to be permanently 3 percentage points higher than is embedded in the Greenbook to reduce long-run inflation by 2 percentage points to 1 percent—the definition of "price stability" used in the first set of simulations.

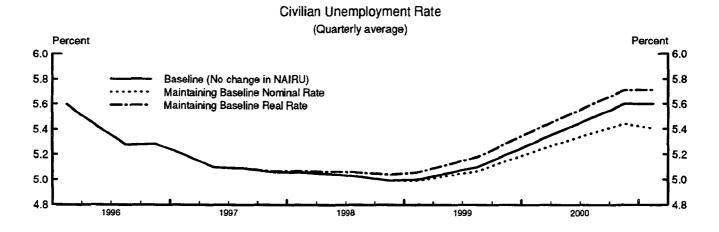
the previous rate. But the Committee in this scenario maintains the reduced rate of inflation by keeping the real federal funds rate above its lower equilibrium level for longer than in scenario 1, causing unemployment to exceed the NAIRU for some years.

- (12) The Committee also faces a risk that the favorable performance of compensation and inflation over recent years is due in part to temporary factors, such as one-time savings in benefit costs from the shift toward managed health care, or to depressed compensation growth caused by transitory worker insecurity. The simulations in Chart 4 posit that this favorable performance dissipates over 1997, so that the NAIRU reverts to the neighborhood of 6 percent by the end of the year. If the Committee were not to recognize the increase in NAIRU, and kept the *nominal* federal funds rate along its baseline path, inflation would not be capped at about 3 percent but would continue to accelerate--gradually at first, but more rapidly over time--reaching 3-1/2 percent at the end of 1999 and 4 percent during 2000. If instead the Committee adjusted the nominal funds rate in response to observed inflation to keep the *real* funds rate along the baseline path, inflation would have a milder upward tilt-rising to 3-1/2 percent in 2000. But a strategy to keep inflation on the baseline path (not shown) would need to bring the real funds rate about ½ percentage point above the baseline to constrain demand to the lower level of output now consistent with the higher NAIRU.
- (13) On the demand side of the economy, an important potential risk might be thought to be a break in the stock market. In the <u>immediate scenario</u> of Chart 5, the stock market falls 25 percent in the current quarter. Aggregate demand is damped (by about 3/4 percent by the end of 1997) as lower wealth holds down consumption and higher costs of equity financing weaken investment. (We made no special allowance for possible extraordinary financial-market disruptions.) To mitigate the effects on output and

Chart 4 Increase in the NAIRU



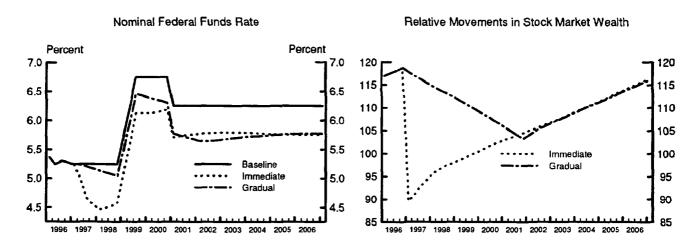


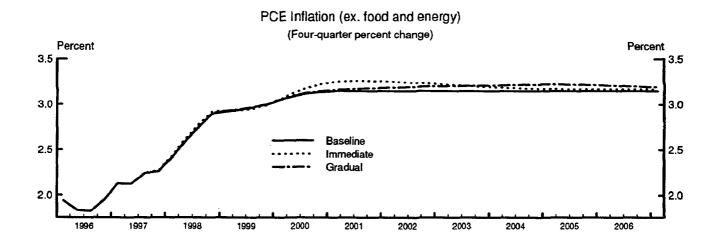


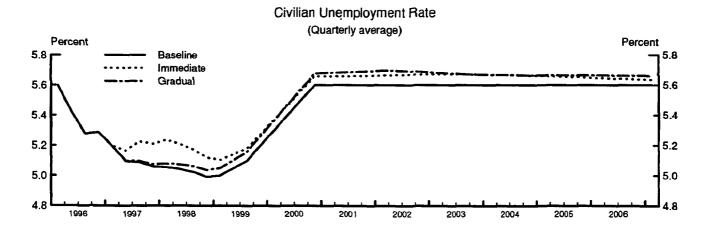
 The real federal funds rate is calculated as the quarterly nominal funds rate minus the four-quarter percent change in the PCE chain-weight price index excluding food and energy.

Note: Data points are plotted at the midpoint of each period.

Chart 5
Stock Market Shocks







Note: Data points are plotted at the midpoint of each period.

employment while maintaining inflation along the baseline, the nominal federal funds rate falls in 1997 by 75 basis points relative to the baseline.⁸ The funds rate later rises to a level 50 basis points below the baseline, the amount needed to offset the depressing long-run effect on aggregate demand of the lower level of wealth. In the gradual scenario, the fall in the stock market is spread out over five years. The policy response is also spread out, paralleling the gradual decline in the equilibrium real funds rate.⁹

⁸ To return the unemployment rate to the baseline level by the end of 1998, the funds rate would have to fall by another ½ percentage point. However, the further decline in the funds rate would bring inflation above its baseline path owing to price effects of dollar depreciation.

⁹A stock market increase, rather than a decrease, of a similar absolute magnitude relative to the Greenbook baseline would require a policy tightening of comparable size in order to maintain inflation around the baseline path.

Long-Run Ranges for 1997

(14) As background for the Committee's discussion of the annual ranges for 1997, the table below presents projections for the growth of money and credit based on the Greenbook forecast. In addition, the table shows as alternative I the provisional ranges adopted by the FOMC last July as well as an alternative involving higher ranges for the monetary aggregates.¹⁰

Growth of Money and Debt and Alternative Ranges (percent)

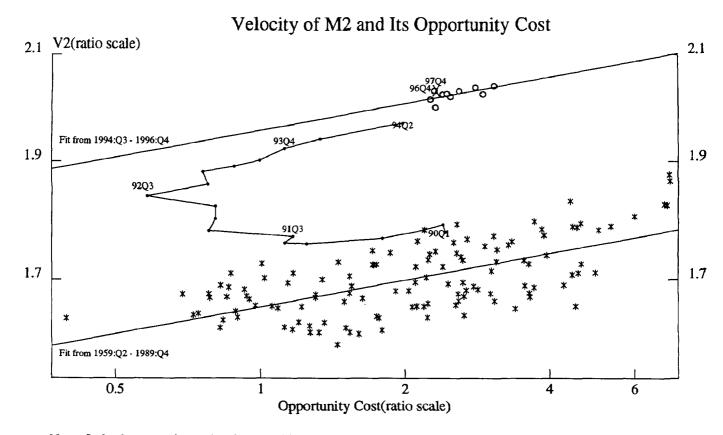
	1996 (actual)	1997 (projected)	Alt. I (provisional)	Alt. II
M2	4.6	4-1/2	1 to 5	2 to 6
M3	6.9	6-1/4	2 to 6	3 to 7
Debt	5.3	5	3 to 7	3 to 7
Memo: Nominal GDP	5.2	4-1/2		

(15) The staff projects that M2 will expand 4-1/2 percent over the four quarters of 1997, in line with forecasted growth in nominal income. During the early 1990s, M2 demand had diverged significantly from its historical relationship with nominal GDP and short-run opportunity costs, with its velocity rising well above its previous long-run average level, as shown in Chart 6.¹¹ Recently, however, evidence has suggested that a stable demand for M2 may have re-emerged, although the period of more normal velocity behavior has been brief. In contrast to the early 1990s, changes in the velocity of M2 over the past 2-1/2 years or so

¹⁰ Appendix A shows the Committee's announced annual ranges for money and credit since 1979.

¹¹ Short-term opportunity costs are defined as the yield on three-month Treasury bills minus the weighted average return on the components of M2.

Chart 6



Note: In both regressions, the slope and intercept were unconstrained.

can be explained primarily by variations in its short-run opportunity cost, and the apparent sensitivity of V2 to opportunity costs has been quite similar to that prevailing previously.

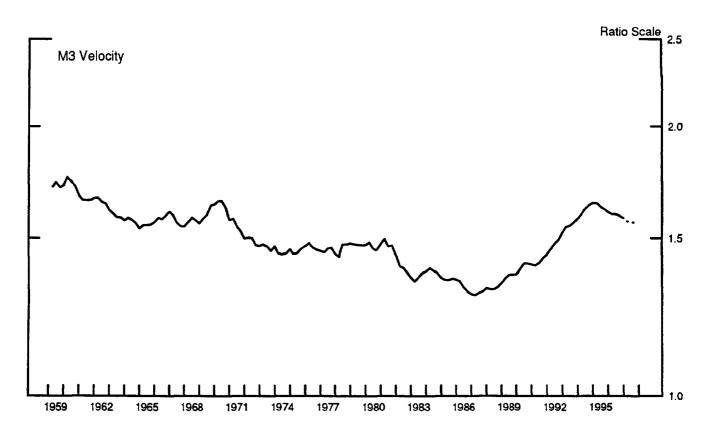
The staff's forecast for M2 growth during 1997 is consistent with the putative new relationship depicted in the chart: With short-term market interest rates assumed to be about unchanged and banks apparently comfortable with current relationships between market rates and deposit rates, short-term opportunity costs should remain about flat during the year, leaving M2 velocity little changed. In addition, capital gains on equity investments are expected by the staff to be considerably smaller than the extraordinary increases of recent years and bond rates are projected to change little on balance over the four quarters of 1997, so that flows into capital market mutual funds should moderate and not depress M2 growth relative to that of nominal income, as they apparently did to a small extent last year. Within M2, patterns of growth are expected to be similar to those during 1996; in particular, M1 is projected to continue to decline substantially, reflecting the further spread of retail sweep accounts.¹²

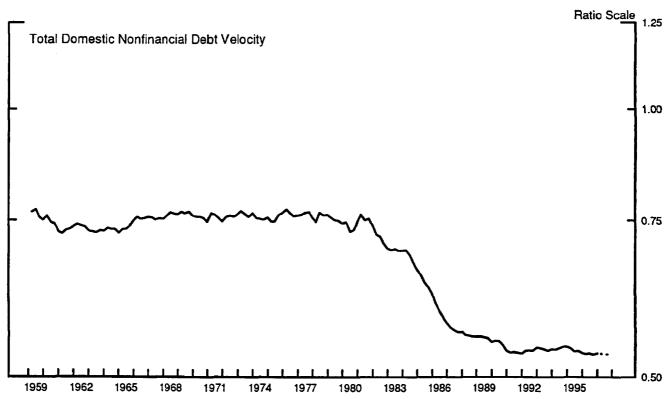
(16) The staff expects M3 to continue to outpace both M2 and nominal income in 1997, expanding at a 6-1/4 percent annual rate, down somewhat from last year's 7 percent jump. (The projected decline in M3 velocity is shown on Chart 7.) In an environment of moderate overall credit growth and of little net change in interest rates or lending conditions that would prompt shifts in borrowing patterns, bank and thrift credit growth, adjusted for mark-to-market accounting effects, should remain near last year's temperate pace. In funding

Depository institutions appear to have considerable scope to continue to implement retail sweep arrangements, and, as a result, required reserves are likely to contract further in 1997. With foreign currency shipments assumed to remain near last year's pace, currency is projected again to expand a little more rapidly than nominal income. The monetary base is projected to increase 3-1/2 percent, or 5-1/2 percent adjusted for the initial effects of sweeps.

Chart 7

Actual and Projected Velocity of M3 and Debt*





^{*}Projections are based on staff forecasts of GDP, money, and debt.

their asset growth, banks are expected to increase their large time deposits somewhat less rapidly than they did in 1996, when they were responding to the reduction in deposit insurance premiums beginning in late 1995. M3 likely will be buoyed again by gains in money market mutual funds, which should continue to capture wholesale investments as managers find it increasingly convenient to invest cash with money funds rather than place it directly in the open market instruments, some of which are outside of M3.

- (17) The staff is projecting domestic nonfinancial sector debt to rise 5 percent during 1997, slightly slower than in 1996 and a little above nominal income growth. With the federal deficit remaining relatively modest, Treasury debt will continue its recent pattern of deceleration, rising about 3-1/4 percent. Expansion of the debt of nonfederal sectors also is projected to edge lower. That slowing owes entirely to the household sector, where debt growth is projected to hold at around the reduced rates of recent months. Banks may tighten further terms and standards for consumer loans, but the increased willingness of intermediaries to extend home equity loans would moderate the effects on overall credit availability to households. Even so, total residential mortgage formation is expected to slow in association with the slackening in housing activity. Despite the downshift in household debt growth, it is projected to continue to exceed the increase in income. In the nonfinancial business sector, borrowing picks up; the financing gap widens as internal funds fail to keep pace with capital spending, and the volume of net equity retirements remains large owing to sustained merger and acquisition activity and to repurchases of outstanding equity.
- (18) Under the baseline projection, M2 and M3 would finish 1997 a little below and just above the upper ends of their respective provisional annual ranges given as alternative I in paragraph (14), while domestic nonfinancial sector debt would be in the middle of its

provisional range. Given these point estimates and the significant uncertainties in forecasting money demand relationships, either or both monetary aggregates could run significantly above their ranges under the interest rates and income growth of the baseline Greenbook projection. Nonetheless, as in recent years when faced with similar circumstances, the Committee might wish to retain the provisional ranges, rather than increase them. The Committee's rationale has been that, in the context of uncertainty about money demand relationships, it has preferred not to highlight its expectations for money growth in the upcoming period but rather to maintain ranges that, if velocity behavior were normal, would be consistent over time with the Committee's goal of sustained non-inflationary growth. 13 The expectations for the year ahead relative to those ranges could again be made clear in the Humphrey-Hawkins report and testimony. If the Committee were not ready to place any heightened emphasis on M2 because it still saw considerable risk that policy could be misled by money growth, it might be concerned that any change in the annual ranges after four years could be misinterpreted by the public as a signal of an upgrading of the aggregates, despite Committee explanations to the contrary. As an additional reason for preferring alternative I, the Committee might not see as large a risk of overshooting the provisional ranges of alternative I as under the staff forecast if it thought that monetary policy would need to tighten during 1997 to further its objectives. For example, the staff estimates that the higher interest rates and slightly slower nominal GDP growth of the "stable inflation strategy" in the previous section would be associated with M2 growth on the order of 3-3/4 percent over this year.

¹³ Under this rationale, however, the Committee might consider reducing the range for domestic nonfinancial sector debt, as the existing 3 to 7 percent range is unlikely to squarely encompass the rate of debt growth consistent with price stability.

(19) If, on the other hand, the Committee did not see interest rates as likely to rise much over the course of 1997 and saw nominal income as coming in close to the Greenbook projection, and it wanted the ranges to encompass more comfortably the associated rates of money growth, it probably would prefer alternative II, which would raise the ranges for both M2 and M3 by 1 percentage point.¹⁴ (Alternative II would retain the provisional range for debt.) Although money growth is forecast to be in the upper halves of the Alternative II ranges rather than in the middle, the Committee might find this to be an attractive feature, consistent with an opportunistic approach to disinflation and the Committee's current asymmetric directive. Both imply the Committee has a stronger predilection to tighten aggressively in response to overshoots in nominal spending than to ease in response to unexpected undershoots. Hence, money growth is more likely to be well below than well above the staff projection, consistent with the staff forecast lying in the upper halves of the alternative II ranges. Furthermore, the higher upper limits of the ranges in this alternative as compared with those of the provisional ranges imply greater scope for the possibility of strong money growth associated with money demand shifts that are not related to disturbances to spending, which would automatically be accommodated under current operating procedures, and appropriately so.

¹⁴ The central tendency of Committee members' nominal GDP projections encompasses the Greenbook projection.

Short-run Policy Alternatives

- (20) Presented below are two short-run monetary policy alternatives. Under alternative B, the federal funds rate would kept at 5-1/4 percent. Under alternative C, the federal funds rate would be raised by ½ percentage point to 5-3/4 percent, either through a less generous provision of nonborrowed reserves or a hike in the discount rate.
- (21) In the staff economic forecast, which is based on no change in the federal funds rate, growth in output slows in early 1997 to just below the rate of increase in potential, before picking up some. As a consequence, pressures on resources hold steady in the near term but then intensify further. With the economy seen already to be operating somewhat beyond its long-run potential, underlying increases in labor compensation and prices move higher through the end of the forecast period, and would be expected to escalate at an increasingly rapid pace thereafter, absent a policy adjustment. Over the near-term, however, the sharp appreciation of the dollar and back-up in bond yields should help to restrain demand and price pressures. Consequently, although the inflationary tendencies in the staff's forecast may not be acceptable to the Committee, the extent of the pickup is gradual enough over coming quarters that, should it occur, it probably could be reversed by policy tightening later this year without severe economic dislocations. In these circumstances, the costs of continuing the "wait and see" stance for a while longer may not be large even if the staff is right about the underlying pressures in the economy, and the Committee would have more information to assess whether additional price pressures are, indeed, likely to develop.
- (22) Financial markets currently are not anticipating a change in policy at the February meeting, and thus the choice of alternative B should initially have little impact on interest rates or the foreign exchange value of the dollar. Over the course of the intermeeting

period, the downshifting of growth in early 1997 in the staff forecast probably is greater than expected by market participants and the news on inflation is a little better, and rates could edge lower. Moreover, signs of a political deal to balance the budget, which the staff assumes will be struck at some point, could put some additional downward pressure on long-term rates, especially if it involved entitlements and hence trimmed deficits beyond 2002. The course of equity prices is particularly uncertain in view of their lofty valuations. While a correction cannot be ruled out, earnings reports, especially those still coming in for the strong fourth quarter, should remain favorable in the period just ahead, and with little change in interest rates, equity prices could well hold around recent levels.

- in share prices along with the generous provision of credit to most borrowers are seen as contributing to unsustainably accommodative financial conditions in the staff forecast. While inflation does not deteriorate appreciably in the near term, given the lags in the effect of policy, the sooner the Committee begins to tighten—as under alternative C—the lower the odds that higher inflation will become embedded in price and wage setting. The discussion in the long-run strategies section suggested that a rise in the funds rate of 125 basis points by late 1998 would be needed to keep inflation from moving permanently higher.
- (24) The tightening of policy under alternative C would surprise market participants, and short-term interest rates, including the prime rate, would rise by the half-point hike in the federal funds rate. In view of the shift in policy direction represented by such an action, intermediate- and long-term rates could rise appreciably, especially if market participants thought the Federal Reserve now saw significantly greater inflation risks than they had inferred from recent statements by FOMC members. In this case, participants are more likely

to extrapolate some further tightening measures. Stock prices likely would come under selling pressure, as monetary tightenings frequently have been associated with bear markets. Nonetheless, even a significant backup in bond yields is unlikely to push them substantially above the trading range of late spring and summer, which in turn has seemed to be compatible with healthy economic growth. Moreover, the extraordinary rise in equity prices over the last several months probably would not be wholly erased given recent strong earnings news. The extent of the backup in nominal coupon yields might be contained were the tightening to affect inflation expectations favorably by underscoring the Federal Reserve's determination to forestall a pickup in inflation. The dollar would tend to rise on foreign exchange markets from its elevated level of late, as the contrast between the cyclical positions of the United States and many of its major trading partners was sharpened even further. Of course, such declines in bond and stock prices and rise in the dollar would be important channels through which the Committee would achieve its desired restraint on aggregate demand growth.

(25) Growth of the broad monetary aggregates is expected to slow under alternative B from the very rapid pace of late 1996. Still, both M2 and M3 are projected to outpace nominal income in the first few months of the year and to remain above the upper ends of their provisional ranges for 1997 through March. M1, by contrast, is projected to run off in the current quarter, owing to heavy sweep activity, but to expand moderately after adjusting for sweeps. Growth of debt of domestic nonfinancial sectors is expected to run a little faster in early 1997 than in late 1996, reflecting in part stronger business borrowing. Still, by March this aggregate would be around the middle of its provisional range.

Directive Language

(26) Presented below for the members' consideration is draft wording relating to the Committee's ranges for the aggregates in 1997 and the operational paragraph for the intermeeting period.

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 at THIS its meeting in July reaffirmed the ESTABLISHED ranges it had established in January for growth of M2 and M3 of __ TO __ 1 to 5 percent and __ TO __ 2 to 6 percent respectively, measured from the fourth quarter of 1996 1995 to the fourth quarter of 1997 1996. The monitoring range for growth of total domestic nonfinancial debt was SET maintained at __ TO __ 3 to 7 percent for the year. 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 to DECREASE (SLIGHTLY/SOMEWHAT)/maintain/
INCREASE (SLIGHTLY/SOMEWHAT) the existing degree of pressure on reserve positions. 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,

somewhat (SLIGHTLY) greater reserve restraint would (MIGHT) or (SOMEWHAT) slightly lesser reserve restraint (WOULD) might be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with SOME MODERATION IN THE relatively strong expansion in OF M2 AND M3 over coming months.

Appendix A

ADOPTED LONGER-RUN RANGES FOR THE MONETARY AND CREDIT AGGREGATES

(percent annual rates)

					- 1		Domestic		
	M	[1	M	2	M3	3	financial Debt ¹		
QIV 1979 - QIV 1980	4 - 6.5	$(7.3)^{2.3}$	6 - 9	(9.8)	6.5 - 9.5	(9.9)	6 - 9	(7.9)	
QIV 1980 - QIV 1981	3.5 - 6	$(2.3)^{2.4}$	6 - 9	(9.4)	6.5 - 9.5	(11.4)	6 - 9	$(8.8)^5$	
QIV 1981 - QIV 1982	2.5 - 5.5	$(8.5)^2$	6-9	(9.2)	6.5 - 9.5	(10.1)	6 - 9 ⁶	(7.1)5	
QIV 1982 - QIV 1983	5 - 9 ⁷	(7.2)	7 - 10 ⁸	(8.3)	6.5 - 9.5	(9.7)	8.5 - 11.5	(10.5)	
QIV 1983 - QIV 1984	4 - 89	(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. ¹⁰	(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 - 511	(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 - 512	(1.4)	0 - 412	(0.6)	4 - 812	(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 - 613	(6.1)	3 - 7	(5.3)	
QIV 1995 - QIV 1996	n.s.	(-4.6)	1 - 5	(4.6)	2 - 6	(6.9)	3 - 7	(5.3)	

<u>NOTE:</u> Numbers in parentheses are actual growth rates as reported at the end of policy period in the 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 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.

1/31/97 (MARP)

SELECTED INTEREST RATES (percent)

			5	Short-Terr	n							Long	Term			
	federal funds	i .	reasury bills		CDs secondary market	comm.	money market mutual	bank prime	·	overnment o		corporate A-utility recently	municipal Bond	convention secondary market	nal home m prim mar	ary
		3-month	6-month	1-year	3-month	1-month	fund	loan	3-year	10-year	10-year 30-year		Buyer	fixed-rate	fixed-rate	ARM
	 	1 2	3	4	5	6	7	8	9	10	11	12	13_	14	15	16
95 High Low	6.21 5.40	5.81 4.89	6.31 5.05	6.75 4.98	6.39 5.55	6.10 5.73	5.61 5.16	9.00 8.50	7.80 5.36	7.85 5.68	7.89 6.06	8.81 6.98	6.94 5.65	9.57 7.40	9.22 7.11	6.87 5.53
96 High Low	5.61 5.08	5.18 4.79	5.37 4.71	5.61 4.57	5.57 5.13	5.83 5.28	5.15 4.73	8.50 8.25	6.59 4.95	7.02 5.59	7.16 5.97	8.23 7.00	6.34 5.63	8.72 7.35	8.42 6.94	6.01 5.19
Monthly																
Jan 96 Feb 96 Mar 96 Apr 96 May 96 Jun 96 Jul 96 Aug 96 Sep 96 Oct 96 Nov 96 Dec 96	5.56 5.22 5.31 5.22 5.24 5.27 5.40 5.22 5.30 5.24 5.31 5.29	5.00 4.83 4.96 5.02 5.09 5.15 5.05 5.09 4.99 5.03 4.91	4.92 4.77 4.96 5.06 5.12 5.25 5.30 5.13 5.24 5.11 5.07 5.04	4.82 4.69 5.06 5.23 5.33 5.48 5.52 5.50 5.25 5.14 5.18	5.39 5.15 5.29 5.36 5.46 5.53 5.40 5.51 5.41 5.38 5.44	5.56 5.29 5.39 5.40 5.38 5.45 5.45 5.37 5.37 5.39 5.70	5.05 4.85 4.76 4.75 4.74 4.76 4.81 4.82 4.82 4.82 4.83 4.85	8.50 8.25 8.25 8.25 8.25 8.225 8.225 8.225 8.225 8.225 8.225 8.225 8.225	5.20 5.14 5.79 6.11 6.27 6.49 6.45 6.21 6.41 6.08 5.82 5.91	5.65 5.81 6.27 6.51 6.74 6.91 6.87 6.64 6.83 6.53 6.20 6.30	6.05 6.24 6.60 6.79 6.93 7.03 6.84 7.03 6.81 6.48 6.55	7.09 7.31 7.75 7.90 8.02 8.13 8.07 7.87 8.06 7.83 7.54 7.63	5.72 5.73 6.07 6.20 6.22 6.25 6.15 6.00 6.11 5.97 5.85 5.91	7.45 7.51 8.07 8.32 8.46 8.59 8.56 8.33 8.48 8.22 7.91 8.01	7.03 7.08 7.62 7.93 8.07 8.32 8.25 8.00 8.23 7.92 7.62 7.60	5.44 5.31 5.51 5.73 5.77 5.92 5.98 5.84 5.85 5.64 5.53 5.52
Weekly Oct 16 96 Oct 23 96 Oct 30 96	5.22 5.22 5.27	5.01 4.99 5.01	5.12 5.12 5.11	5.29 5.25 5.22	5.41 5.40 5.40	5.35 5.35 5.37	4.82 4.80 4.82	8.25 8.25 8.25	6.12 6.08 6.03	6.57 6.53 6.49	6.86 6.82 6.78	7.82 7.86 7.73	5.97 6.01 5.94	8.17 8.25 8.00	7.88 7.86 7.78	5.62 5.57 5.60
Nov 6 96 Nov 13 96 Nov 20 96 Nov 27 96	5.32 5.21 5.41 5.30	5.03 5.03 5.03 5.03	5.09 5.08 5.06 5.07	5.16 5.15 5.12 5.14	5.39 5.38 5.38 5.38	5.38 5.37 5.40 5.40	4.85 4.86 4.82 4.82	8.25 8.25 8.25 8.25	5.91 5.86 5.78 5.78	6.34 6.24 6.17 6.14	6.64 6.47 6.44 6.43	7.59 7.52 7.48 7.42	5.92 5.86 5.83 5.80	7.96 7.87 7.87 7.87	7.67 7.59 7.53 7.52	5.56 5.52 5.48 5.50
Dec 4 96 Dec 11 96 Dec 18 96 Dec 25 96	5.52 5.22 5.38 5.18	4.94 4.87 4.85 4.93	5.03 5.01 5.04 5.07	5.11 5.17 5.21 5.21	5.40 5.41 5.42 5.48	5.51 5.54 5.65 5.83	4.88 4.82 4.83 4.90	8.25 8.25 8.25 8.25	5.72 5.85 5.97 5.97	6.08 6.26 6.40 6.35	6.37 6.52 6.64 6.59	7.62 7.67 7.69 7.64	5.83 5.93 5.95 5.92	7.97 8.06 8.00 8.00	7.44 7.57 7.74 7.64	5.47 5.52 5.53 5.57
Jan 1 97 Jan 8 97 Jan 15 97 Jan 22 97 Jan 29 97	5.37 5.28 5.19 5.19 5.18	5.02 5.04 5.03 5.03 5.04	5.09 5.12 5.09 5.09 5.12	5.19 5.30 5.31 5.29 5.31	5.48 5.42 5.44 5.42 5.42	5.94 5.45 5.43 5.43 5.43	4.89 4.82 4.82 4.82 4.82	8.25 8.25 8.25 8.25 8.25	5.98 6.13 6.15 6.14 6.21	6.35 6.55 6.57 6.55 6.64	6.58 6.78 6.81 6.82 6.90	7.83 7.95 7.93 8.00 7.92	5.96 5.96 6.01 6.00 6.02	8.16 8.25 8.20 8.28 8.15	7.67 7.85 7.87 7.85 7.88	5.56 5.54 5.57 5.57 5.55
Daily Jan 24 97 Jan 30 97 Jan 31 97	5.13 5.30 5.30p	5.03 5.04 5.02	5.13 5.10 5.08	5.31 5.28 5.29	5.42 5.42 5.42	5.42 5.44 5.45	••	8.25 8.25 8.25	6.21 6.16 6.08	6.64 6.61 6.53	6.89 6.88 6.80				••	

NOTE: Weekly data for columns 1 through 11 are statement week averages. Data in column 7 are taken from Donoghue's Money Fund Report. Columns 12, 13 and 14 are 1-day quotes for Friday, Thursday or Friday, respectively, following the end of the statement week. Column 13 is the Bond Buyer revenue Index. Column 14 is the FNMA purchase yield, plus loan servicing fee, on 30-day mandatory delivery commitments. 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 Credit Aggregate Measures

Seasonally adjusted

FEBRUARY 3, 1997

	Ţ	Mo	ney stock measur	Bank credit	Dome	stic nonfinancial	debl1			
Period	M1	M2	nontransactions	In M3 only	МЗ	L	total loans and investments t	U. S. government²	other²	tota ²
	1	2	3	4	5	6	7	8	9	10
Annual growth rates(%):										
Annually (Q4 to Q4)	1 1	_ '		. 1	_]			1		i
1994	2.5	0.6	-0.3	6.6	1.7	2.7	6.8	5.7	5.1	5. 5.
1995	-1.6	4.0	6.7	15.3 15.5	6.1	7.4	8.8	4.4	5.9) 5.
1996	-4.6	4.6	8.8	15.5	6.9		4.0			
Quarterly(average)	1				l		[ļ <u> </u>		
1996-01	-3.5	5.3	9.3	11.5	6.6	4.6	5.1	3.0	5.8	
1996-02	-1.4	4.5	7.0	13.5	6.3	6.3	3.3	4.7	5.9	5 5
1996-03	-6.5	3.4	7.7	12.9	5.4	5.7	1.0	3.8	5.6	5
1996-04	-7.3	5.0	10.1	21.0	8.5	3.7	6.5] 3.8	5.0	
	'``*	3.10			","		""	Į į		ļ
Monthly	1 1]			ł			
1996-JAN.	-7.2	4.9	10.3	16.0	7.2 8.5	3.8	10.0	0.3	6.0	4
PEB.	-2.6	4.9	8.2	22.2	8.5	3.2	3.3	6.1	6.5	6
MAR.	6.9	9.4	10.6	9.4	9.4	11.2	-2.5	8.9	5.5	6
APR.	-2.9	3.4	6.1	7.2	4.2	7.3	8.8	4.2	6.0	5
MAY	-6.8	0.4	3.5	25.5	5.6	1.3	1.5	2.0	5.6	4
June	-1.7 -7.2	5.3	8.2	6.3	5.5	6.4	2.2 1.5	2.1 6.0	5.9	4
JULY	-7.2	2.6	6.8	11.5	4.5	4.6	1.5		6.1	6
AUG.	-9.7	4.1	9.9	9.8	5.3	6.9	-3.2	4.5	4.9	4
SEP.	-7.2	4.0	8.7	22.5	8.0	9.0	4.7	1.0	4.9	3
OCT.	-14.4	3.9	11.4	28.7	9.3	4.6	9.1	3.8	5.5 6.3	5
Nov.	-0.1	6.8	9.6	10.2	7.5	8.8	9.0	4.2	6.3) >
DEC.	1.1	7.4	9.9	24.8	11.3		7.1	[Ĺ
1997-JAN. pe	-4	6	9	11	7		!			İ
Levels (Sbillions):					1					
Monthly				!					40004 0	
1996-AUG.	1099.8	3762.8	2663.0	1027.4	4790.2	5920.0	3675,5	3743.4	10631.3	14374
SEP.	1093.2	3775.4 3787.8	2682.2 2707.6	1046.7	4822.1	5964.5	3690.0	3746.4 3758.2	10674.3 10723.5	14481
OCT.	1080.1	3787.8	2707.6	1071.7	4859.5 4890.0	5987.4 6031.1	3717.9 3745.7	3771.4	10779.8	14551
Nov. Dec.	1080.0	3832.8	2729.2 2751.8	1080.8	4935.9	9031.1	3768.0	3//1.4	10//9.6	14221
DEC.	1002.0	3034.0	2/51.0	1103.1	4333.3		1 3700.0			1
Weekly) j				1					
1996-DEC. 2	1089.5	3823.3	2733.8	1087.3	4910.6		1	1		ì
9	1076.5	3829.6	2753.1	1097.7	4927.3					
16	1076.5	3829.4	2752.9	1106.0	4935.4					ļ
23	1080.0	3834.8	2754.8	1104.4	4939.2]			{
30	1084.8	3835.6	2750.8	1107.9	4943.5		1	1		l
							1	1		
1997-JAN. 6	1082.1	3847.5	2765.4	1109.6	4957.1					1
13 p	1075.1	3839.8	2764.7	1117.5	4957.2		Į.	(l	1	Į.
20 p	1080.4	3856.1	2775.7	1113.1	4969.2		ł	1		1
	1 1		1				I	1		ı

Note: Data incorporate revisions from the annual benchmark and seasonal review. These data are scheduled to be published in early February and until that time are strictly confidential.

Adjusted for breaks caused by reclassifications.

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. 1. 2.

preliminary preliminary estimate

Components of Money Stock and Related Measures

Seasonally adjusted

FEBRUARY 3, 1997

		Damand	Other	On the sec	Small		market il funds	Large		_	•	Short-term		
Period	Сиптепсу	Demand deposits	checkable deposits	Savings deposits¹	denomination time deposits ²	Retail³	Institution- only	denomination time deposits	RP*s*.*	Eurodollars ^{s,a}	Savings bonds	Treasury securities	Commercial paper ^a	Bankers acceptances ³
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Levels (Sbillions): Annual (Q4) 1994 1995 1996	352.4 371.4 392.6	384.9 390.3 401.0	404.8 362.1 278.2	1164.0 1127.3 1258.5	806.5 930.4 943.0	379.8 451.0 528.1	197.4 244.7 293.1	358.7 416.3 489.8	176.6 186.7 195.3	81.9 91.6 107.0	179.8 184.5	380.9 468.5	401.5 438.2	13.8 12.7
Monthly 1995-DEC.	372.6	391.1	356.5	1137.1	933.7	455.2	246.9	419.8	182.1	90.8	184.8	475.5	437.1	12.0
1996-Jan. Feb. Mar.	373.0 373.4 375.4	394.4 397.3 404.5	345.9 340.3 337.3	1153.8 1165.1 1180.2	934.3 934.1 930.8	459.6 466.0 476.8	250.1 259.7 263.7	420.9 426.3 432.5	187.1 188.6 187.3	94.0 95.2 93.8	185.0 185.0 185.2	466.0 445.0 459.6	437.2 442.3 445.1	11.8 10.3 9.8
apr. May June	376.4 377.7 379.9	404.5 407.1 410.6	333.9 323.5 316.4	1190.1 1195.6 1204.1	929.5 928.4 928.8	481.4 484.5 493.6	263.4 263.6 269.7	435.4 442.5 448.9	188.0 201.3 193.3	96.3 96.8 97.6	185.6 186.0 186.4	461.4 432.6 443.4	461.0 473.4 470.9	10.3 10.8 11.4
JULY AUG. SEP.	382.8 385.2 387.6	408.7 405.8 404.9	308.7 300.4 292.2	1211.0 1222.7 1231.5	930.5 934.2 937.5	499.6 506.1 513.2	274.0 278.8 285.2	455.2 459.3 466.8	192.3 191.2 193.7	97.6 98.1 100.9	186.8 187.2 187.3	445.6 452.7 461.1	473.1 478.6 482.4	11.4 11.3 11.5
OCT. NOV. DEC.	390.2 392.4 395.1	398.2 402.1 402.6	283.1 276.8 274.8	1246.2 1258.7 1270.6	940.9 943.4 944.6	520.5 527.1 536.6	288.1 292.0 299.3	481.6 487.8 499.9	195.8 195.6 194.5	106.2 105.4 109.4	187.3 187.1	449.6 460.3	479.5 481.9	11.6 11.9
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р preliminary

Note: Data incorporate revisions from the annual benchmark and seasonal review. These data are scheduled to be published in early February and until that time are strictly confidential

Includes money market deposit accounts.
Includes retail repurchase agreements. All IRA and Keogh accounts at commercial banks and thrift institutions are subtracted from small time deposits.
Excludes IRA and Keogh accounts.
Net of large denomination time deposits held by money market mutual funds, depository institutions, U.S. government, and foreign banks and official institutions.
Net of money market mutual fund holdings of these items.
Includes both overnight and term.

NET CHANGES IN SYSTEM HOLDINGS OF SECURITES 1 Millions of dollars, not seasonally adjusted

January 31, 1997

			Treasury bills				Treasury	Federal	Net change				
Pa	eriod	Net	Redemptions	Net		Net pu	rchases 3		Redemptions	Net	agencies redemptions	outright	l
		Net 2 purchases	(-)	change	within 1 year	1-5	5-10	over 10	(-)	Change	(-)	holdings total ⁴	Net RPs
1994		17,484		17,484	1,238	9,168	3,818	3,606	2,337	15,493	1,002	31,975	-7,41
1995		10,932	900	10,032	390	4,966	1,239	3,122	1,476	8,241	1,303	16,970	-1,02
1996		9,901		9,901	1,275	3,177	776	1,965	787	6,407	1,637	14,670	5,35
1995	Q1				***		***		621	-621	229	-850	-4,08
	Q2	4,470		4,470		2,549	839	1,138	370	4,156	312	8,314	10,39
	Q3	842		842		100		100		200	501	541	-15,97
	Q4	5,621	900	4,721	390	2,317	400	1,884	485	4,506	261	8,965	8,64
	Q1										1,336	-1,336	-8,87
	Q2	3,399		3,399	35	1,899	479	1,065	787	2,691	138	5,952	2,95
	Q3		•••	***	1,240	1,279	297	900	***	3,716	79	3,637	-2,45
	Q4	6,502		6,502							85	6,417	13,72
1996	January										1,228	-1,228	-12,62
	February												-1,68
	March		***								108	-108	5,43
	April	88		88	35	1,899	479	1,065	787	2,691	82	2,697	-2,92
	May		***					•=-			16	-16	6,59
	June	3,311		3,311							40	3,271	-71
	July									1	52	-52	7,11
	August				1,240	1,279	297	900		3,716		3,716	-9,26
	September		***								27	-27	-30
	October	0.500	***							•••	63	-63	3,62
	November	6,502		6,502					*		10	6,492	58
/eekly	December			***				*	*	***	12	-12	9,51
October	30							***			13	-13	-6,46
November													4,62
	13	6,502		6,502	***							6,502	-9,74
	20												9,86
	27										10	-10	-2,55
December	4												3,74
	11			•••			•••	•			12	-12	-4,07
	18								***]		15,61
	25								•••				-8,11
	1								***				4,24
	8									***			-8,21
	15		***	***					607	-607	170	-777	3,26
	22		***		***				***	***	17	-17	-9,26
	29		***	**-									10,72
lemo: LEVE	EL (bil. \$) ⁶			į									
January		1		205.4	22,106.0	94.7	33.8	41.8		22,276.3		407.0	-13.1

^{1.} Change from end-of-period to end-of-period.

within 1 year	1-5	5-10	over 10	total	
1.0	0.5	0.5	0.0	2.0	

^{2.} Outright transactions in market and with foreign accounts.

^{3.} Outright transactions in market and with foreign accounts, and short-term notes acquired 6. The levels of agency issues were as follows: 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 (+).