

Prefatory Note

The attached document represents the most complete and accurate version available based on original copies culled from the files of the FOMC Secretariat at the Board of Governors of the Federal Reserve System. This electronic document was created through a comprehensive digitization process which included identifying the best-preserved paper copies, scanning those copies,¹ and then making the scanned versions text-searchable.² Though a stringent quality assurance process was employed, some imperfections may remain.

Please note that this document may contain occasional gaps in the text. These gaps are the result of a redaction process that removed information obtained on a confidential basis. All redacted passages are exempt from disclosure under applicable provisions of the Freedom of Information Act.

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

² A two-step process was used. An advanced optimal character recognition computer program (OCR) first created electronic text from the document image. Where the OCR results were inconclusive, staff checked and corrected the text as necessary. Please note that the numbers and text in charts and tables were not reliably recognized by the OCR process and were not checked or corrected by staff.

MONETARY POLICY ALTERNATIVES

Prepared for the Federal Open Market Committee

By the staff Board of Governors of the Federal Reserve System

February 1, 1991

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) Immediately after the December FOMC meeting, the discount rate was cut 1/2 percentage point and Desk operations were adjusted so that about half of this decline would show through to the federal funds rate.¹ Another easing step of 25 basis points was taken in early January, with the funds rate expected to decline to 6-3/4 percent in response to indications that the monetary aggregates were very weak at a time when the economy was continuing to exhibit considerable softness.² Most recently, after the employment data for January and other indicators portrayed the economy as slackening further and inflation pressures as abating, the discount rate was lowered another 1/2 percentage point, to 6 percent, with the expectation that all of this decline would be transmitted to the federal funds rate.

(2) The actual funds rate fluctuated widely around its intended levels, however, with rates as high as 100 percent and as low as zero registered during the period. An important factor in the additional volatility was the phase-out of the nontransaction reserve requirement, which reduced required reserve balances to levels that proved at times to be insufficient for clearing purposes--that is, to avoid overnight overdrafts. At those times, for many banks the marginal dollar of reserve

1. The formal allowance for adjustment plus seasonal borrowing was increased \$25 million as a part of this policy change.

2. The borrowing allowance was reduced \$25 million, to \$100 million, in this action.

balances was held to meet clearing needs, leaving banks less willing to arbitrage the funds rate across time and demanding additional excess reserves. This phenomenon has seemed especially important in the current maintenance period as required reserve balances reach their seasonal low. Other forces contributing to volatility in earlier maintenance periods were balance sheet maneuvering around year-end and occasional shortfalls of reserves near the ends of maintenance periods. On a maintenance-period average basis, the federal funds rate ranged only from a high of 7-1/4 percent in the period ended December 26 to a low of about 6-3/4 percent in the subsequent period. So far in the current maintenance period, clearing demands for balances have pulled the funds rate up to an average of about 7-1/4 percent.³

(3) The monetary policy easings and the passing of year-end were the dominant influences on other short-term credit markets over the intermeeting period. Treasury bill rates have fallen about 75 basis points since mid-December, somewhat less than the size of the System's easing actions. Private money market rates are down by more, reflecting a reduction in the pronounced risk premiums that had been built into them ahead of year-end. Long-term markets, by contrast, were more affected by developments surrounding the outbreak of war in the Middle East. Prices in bond and stock markets declined appreciably in the weeks leading up to

3. In the first eight days of the current maintenance period, adjustment plus seasonal borrowing has averaged \$240 million. In general since the last meeting, borrowing has averaged well above the levels built into the reserve paths, owing to a minor degree to special situation borrowing and to a major degree to reserve shortfalls against the background of the lower required reserves and the need for additional balances to meet clearing needs.

the U.N. deadline on January 15. Those losses were reversed in a single day when initial reports engendered optimism that the war would be brief and have minimal impact on global oil supplies. Broad indexes of stock prices have risen about 4 percent on balance over the intermeeting period. Treasury bond yields, however, are down only 8 basis points since the December meeting, despite both a \$6 net drop in oil prices and the System's easing actions. Some of the stickiness in yields may reflect concerns about upcoming supplies of Treasury securities, given upward revisions to expected federal deficits, as well as a sense that, partly because of Federal Reserve actions, the length and depth of the recession will be limited.

(4) Dollar exchange rates fluctuated widely over the intermeeting period. The dollar's weighted average exchange value rose about 3 percent from the December meeting through mid-January, primarily on the basis of safe-haven demands associated with developments in the Middle East and turmoil in the Soviet Union. In the flush of optimism generated by reports out of the Persian Gulf on the first day of the war, the dollar declined by 2 percent as the safe-haven effect diminished. After drifting lower in subsequent days, the dollar dropped sharply following the Bundesbank's 1/2 percentage point increase in its official lending rates and the next day's cut in the Federal Reserve's discount rate. Only the Netherlands and Austria followed the German rate action, and short-term market rates abroad remain down about 35 basis points on average over the period, helping to limit the dollar's decline to just 1-1/4 percent on balance. Foreign long-term rates fell about 30 basis points, on average.

(5) M2 growth remained weak, at a 1-1/4 percent annual rate in January, off a bit from the 1-3/4 percent rate registered in December; this aggregate thus is running below the 4 percent rate that the Committee had expected for the November-to-March period.⁴ The aggregate was held down by declines in RPs and demand deposits, both of which were affected by an unusually pronounced seasonal pattern around year-end. On the other hand, currency increased sharply, likely owing to stepped-up shipments overseas.⁵ M2 growth excluding these items (and Eurodollars holdings as well) picked up to roughly a 3 percent rate in December and 3-3/4 percent in January, buoyed by narrowing opportunity costs. Even so, growth likely was held down by heightened concerns both about the Bank Insurance Fund, and about depository institutions generally, in the wake of the closing of privately insured banks and credit unions in Rhode Island and the failure of the Bank of New England. Noncompetitive tenders at Treasury auctions have been unusually strong in recent weeks, and, within M2 (as adjusted above), all the increase was accounted for by money funds, which grew at a 30 percent pace. Core deposits remained stagnant last month, despite the downward movement in market interest rates.

(6) Although bank credit edged lower in January, M3 growth picked up to a 4 percent rate. Over the last two months, M3 has grown at

4. The money data presented in this document reflect the results of the annual benchmark and seasonal review--discussed in Appendix A--and should be treated as confidential until their release to the public, planned for February 7.

5. The surge in currency lifted growth of the monetary base to a 16-1/4 percent rate in January. The drop in transaction balances, however, restrained M1 growth to a 1-1/4 percent pace and led to a 6 percent rate of decline in total reserves. (Reserves have been adjusted to remove the effects of the change in reserve requirements.)

about a 2 percent average rate, compared with the Committee's expectation of 1 percent for the November-to-March period. The strength in M3 relative to M2 resulted from a pickup in large CD issuance, reflecting a shifting of bank funding patterns, and from very rapid inflows to money funds.

(7) Preliminary data indicate that bank loans contracted in January, with the drop most evident in the C&I category. To an extent, this decline may be the paydown of business loans taken out late last year, when some corporations that faced a cool reception from the commercial paper market ahead of year-end turned to their backup lines of credit at banks. Also likely contributing to the reduction in C&I loans were weak loan demand related to the slump in economic activity and tighter loan supply conditions, as reflected in responses to the Federal Reserve's latest survey of senior loan officers. On average in December and January, bank business loans fell at a 1-3/4 percent rate. The prime rate was lowered by 1/2 percentage point after the turn of the year, and many banks reduced it again when the discount rate was cut to 6 percent; nevertheless, the prime rate remains exceptionally high relative to other short-term interest rates. Outstanding commercial paper of nonfinancial firms moved lower on balance over the last two months; bond offerings became scarcer in January, but surged as the market rallied on February 1. Long-term issuance by state and local governments in recent weeks has been quite limited. Consumer debt growth slowed in the fourth quarter and bank data for January suggest continued weakness. The survey of lending officers conducted last month showed still small, but growing, reluctance

to lend to consumers and a tightening of standards in home mortgages. Federal borrowing, by contrast, has remained quite robust and is estimated to be supporting total debt growth through January at around the midpoint of its 4-1/2 to 8-1/2 percent provisional monitoring range.

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

	Nov.	Dec.	Jan. ^P	QIV '90 to January ^P
<u>Money and credit aggregates</u> ¹				
M1	3.1	2.9	1.3	2.1
M2	0.3	1.7	1.3	1.3
M3	0.1	0.2	4.1	2.1
Domestic nonfinancial debt	6.9	6.9	--	--
Bank credit	1.5	2.5	-0.8	0.6
<u>Reserve measures</u>				
Nonborrowed reserves ²	6.9	13.5	-9.8	0.7
Total reserves	3.1	15.4	-6.0	2.6
Monetary base	4.4	7.1	16.2	11.2
Memo: (Millions of dollars)				
Adjustment plus seasonal borrowing	206	303	492	--
Excess reserves	945	1667	1841	--

p - preliminary.

1. Data on the monetary aggregates incorporate the 1991 benchmark and seasonal review.
2. Includes "other extended credit" from the Federal Reserve.

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.

Long-Run Strategies

(8) Three long-run strategies are presented in the table below as background for Committee consideration of ranges for money and credit growth for 1991. The first, or baseline, strategy takes the staff's greenbook forecast of output and inflation over 1991 and 1992. The economic indicators received since the greenbook would seem to suggest slightly greater weakness currently, but the half-point reduction in the funds rate should be sufficient to offset that weakness and to restore output to its greenbook level by the latter part of this year. Indeed, to hold GNP to the greenbook path in late 1991 and 1992, interest rates need to begin to edge higher later this year, reaching the levels assumed in the greenbook. For 1993-1995 the baseline strategy extends the logic of the greenbook forecast--the maintenance of a small margin of slack in the economy to achieve a gradual deceleration of prices--out for three more years. Strategy II embodies a tighter monetary policy, as indexed by 1 percentage point slower M2 growth each year, while strategy III involves an easier policy, indexed by 1 percentage point faster M2 growth. The baseline forecast for years beyond 1992 is based on simulations using the Board's large-scale econometric model; the other strategies are derived from the baseline using that econometric model.

(9) In all of these strategies, growth of M2 remains restrained in 1991 and 1992 relative to income after allowing for the influence of market interest rates, owing to continued contraction in depository credit and investor concerns about the health of the banking system. Subsequently, with the economic recovery progressing and unusual restrictions

on credit availability and credit terms gradually lifting, bank lending strengthens and banks begin to compete more actively for retail deposits. As a result, M2 quickens after 1992 in each of the strategies as growth of this aggregate returns to a more normal relationship with the expansion of income. The effects of the easing of credit stringency in the last three years are offset by tighter fiscal policy--as war-related outlays diminish and the budget procedures adopted last fall take hold--leaving, on balance, a small damping influence on the economy in these years.

Alternative Strategy Simulations
(QIV to QIV percent change)

	1990	1991	1992	1993	1994	1995
M2						
I (baseline)	3.9	4-1/2	4-1/2	5	5	5
II (tighter)		3-1/2	3-1/2	4	4	4
III (easier)		5-1/2	5-1/2	6	6	6
Prices: GNP fixed-weight price index						
I	4.7	4	3-3/4	3-1/2	3-1/4	3
II		4	3-1/4	2-3/4	2-1/4	1-3/4
III		4	4-1/4	4-1/4	4-1/2	4-3/4
Real GNP						
I	.3	2	2-1/2	2-1/4	2-1/4	2-1/4
II		1-1/4	1-3/4	1-3/4	2	2-1/2
III		2-1/2	3-1/4	3	2-1/2	1-3/4
Unemployment rate (QIV level)						
I	5.9	6	6	6	6	6
II		6-1/4	6-1/2	6-3/4	7	6-3/4
III		5-3/4	5-1/2	5	5	5-1/4

(10) In the baseline strategy, the economy begins to recover by midyear, and by 1993 settles into a 2-1/4 percent growth rate, the

staff's estimated rate of growth of potential GNP. The modest amount of slack that accompanies this strategy, as indicated by the 6 percent unemployment rate--about a half percentage point above the estimated natural rate--is sufficient to yield a deceleration of costs and prices of about 1/4 percentage point per year; the inflation rate drops to 3 percent in 1995. After 1992, nominal interest rates drift lower in line with the decline in inflation and increased fiscal restraint. This decline in interest rates buoys M2 growth relative to that of nominal GNP, and the abatement of the velocity shift keeps M2 growth steady even as nominal income slows with inflation.

(11) Under the tighter strategy II, the drop in inflation is more pronounced, to below 2 percent in 1995. Slower M2 growth is achieved by higher nominal and real interest rates than in the baseline in the first couple years. These higher rates and the accompanying firmer dollar damp the economic recovery sufficiently to raise the unemployment rate through 1994, putting additional downward pressure on inflation. Nominal interest rates, while higher than in the baseline in the first two years, thereafter move below those in the baseline as inflation comes down more. This scenario, along with the others, assumes that the public's outlook for inflation is based on current and recent inflation experience and does not allow for credibility effects. To the extent that the public believes the Federal Reserve's commitment to a disinflation policy, lower inflation would come with less slack in resource markets.

(12) Under the easier strategy III, output growth would be faster until late in the period but inflation would edge higher. The upward

tilt to inflation owes to the stronger economy which pushes the unemployment rate below the natural rate. The pickup in nominal income boosts demands for M2; to hold M2 growth at only 1 percentage point above the baseline, interest rates need to rise later in the period, to well above current levels. This easier strategy thus leads to appreciably higher nominal interest rates than those embodied in strategies I and II, although real interest rates remain lower.

(13) The next table presents inflation rates derived from two different sets of simulations using the P^* model, which has been augmented with a relative price of oil variable. The upper panel uses the P^* model with historical long-run equilibrium velocity, V^* , to derive the inflation implications of the M2 growth rates used in the large-scale model simulations above. These money growth rates, fed through the P^* model, yield greater restraint on prices because this P^* simulation, unlike the above simulations, assumes the recent and prospective unusual strength of velocity associated with the disruption of the depository intermediation process is transitory, and velocity returns to an unchanged V^* over time. In contrast, the P^* simulations presented in the lower panel assume that the velocity shifts built into the greenbook and into the large-scale model exercise are permanent, i.e., imply rising V^* . The results are very close to those of the large-scale model simulations for strategies I and II. For the easier strategy III, however, the adjusted P^* model suggests noticeably less inflation pressure, perhaps reflecting the more disinflationary starting point for the P^* simulation; P^* is appreciably below P at the end of 1990 even with the upward adjustment to V^* .

P* Model Simulations of Inflation
(QIV to QIV percent change)

	1990	1991	1992	1993	1994	1995
Prices: GNP fixed-weight price index						
A. With no adjustment for velocity shifts						
I (baseline)	4.7	3-3/4	2-1/2	1-1/2	1	1/2
II (tighter)		3-3/4	2-1/2	1	0	-3/4
III (easier)		4	3	2-1/4	1-3/4	1-3/4
B. With adjustment for velocity shifts ¹						
I		4	3-1/2	3-1/4	3	2-3/4
II		4	3-1/4	2-1/2	2	1-1/2
III		4-1/4	4	3-3/4	4	4

1. V* is assumed to increase each year at the same rate as M2 demand is assumed to shift relative to model forecasts. These shifts are 1-3/4 percent in 1990, 1-1/2 percent in 1991 and 1992, 1-1/4 percent in 1993, 1/2 percent in 1994, and 1/4 percent in 1995.

Long-Run Ranges

(14) The table below presents three alternative sets of ranges for growth of money and debt over 1991. (Appendix B gives the ranges and outcomes for money and debt growth since 1979.) Alternative I represents the provisional ranges selected by the Committee last July; the staff projections for M2 and debt growth consistent with the greenbook forecast fall at the midpoint of these ranges. The staff projection of M3, however, is lower in the provisional range. Alternative II allows for a somewhat tighter policy stance by reducing the ranges uniformly by 1/2 percentage point. This alternative could be interpreted as more consistent with the 1 percentage point slower M2 growth of longer-run strategy II in the preceding section. Alternative III permits a somewhat easier policy through comparably higher limits for money and debt growth. This

	<u>Alt. I (Tentative Ranges)</u>	<u>Alt. II</u>	<u>Alt. III</u>	<u>Memo: Staff Forecast</u>
Growth from QIV '90 to QIV '91				
M2	2-1/2 to 6-1/2	2 to 6	3 to 7*	4-1/2
M3	1 to 5*	1/2 to 4-1/2	1-1/2 to 5-1/2	2
Debt	4-1/2 to 8-1/2	4 to 8	5 to 9*	6-1/2
Memo: M1				5
Nominal GNP				6

*Range used for QIV '89 to QIV '90.

alternative could be viewed as more consistent with longer-run strategy III discussed above, which embodies M2 growth 1 percentage point faster than in the staff forecast.

(15) The staff forecast of 4-1/2 percent M2 growth over the four quarters of 1991 implies a pickup in growth of the aggregate after the weak expansion evidently in train for the first quarter. Expansion for the year as a whole is a little higher than last year, given the stimulus from more rapid nominal GNP growth that is projected and from the recent policy easings. Even so, M2 growth will be limited by similar influences as last year. The sum of bank and thrift assets should decline even more than last year; RTC activity is projected to pick up further and bank caution in the latter part of 1990 is carried over into 1991, with perhaps added restraint on the pricing of retail deposits. Higher premiums or special assessments on deposits to replenish the FDIC fund would reinforce this tendency. In addition, depositors probably will remain chary about the health of depository institutions, at least for a time.⁶ Thus, despite the drop in interest rates, M2 growth is expected to fall short of nominal GNP growth by about 1-1/2 percentage points in 1991, as shown by the increase in M2 velocity on the chart.⁷

(16) The speed-up in M2 does not show through to M3 because of the steeper decline in depository credit. Hence, M3 growth is expected at around 2 percent again in 1991. Many of the retail deposits coming from thrifts will be picked up by banks, who will use them mainly to pay down

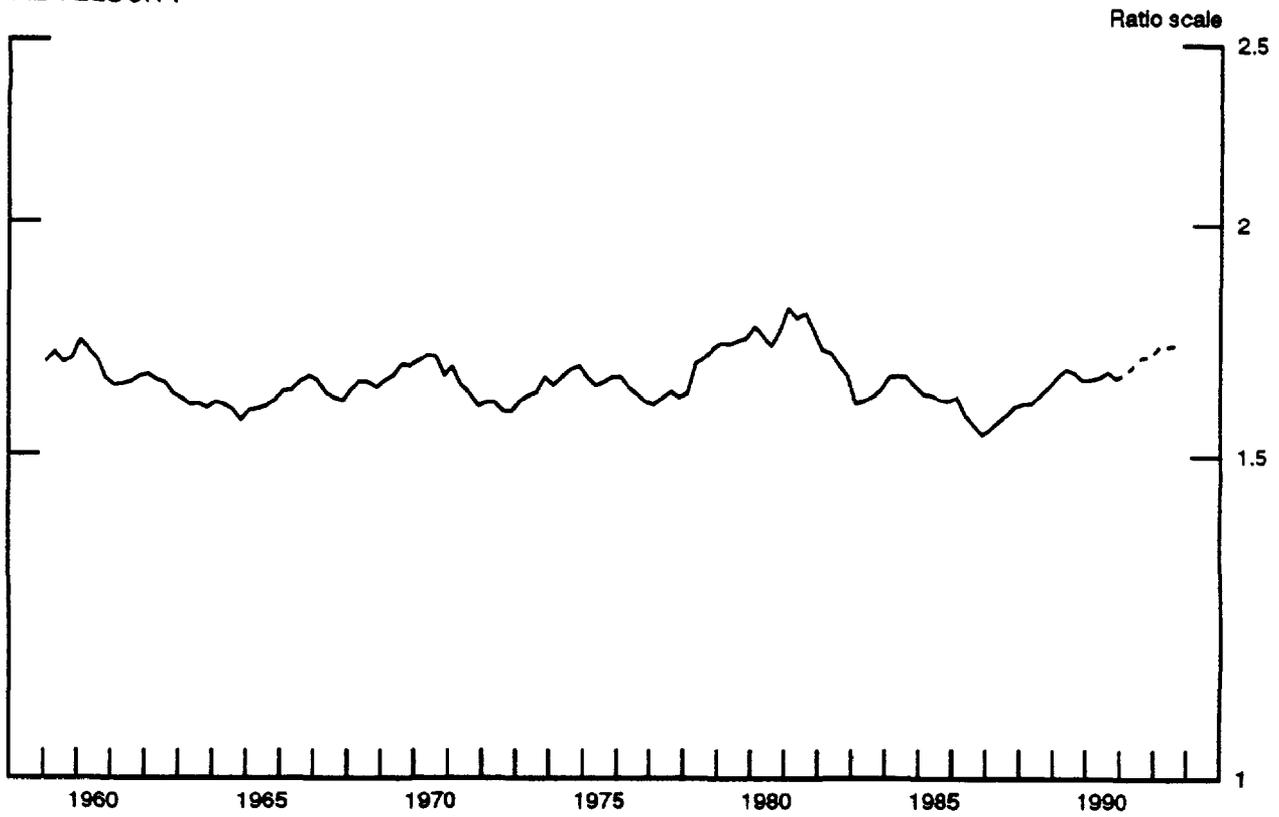
6. Their concerns might be intensified by legislative proposals to significantly restrict deposit insurance coverage.

7. Projected M2 in 1991 is about 1-1/2 percentage points below that of the staff M2 demand model--a bit less than the 1990 model miss.

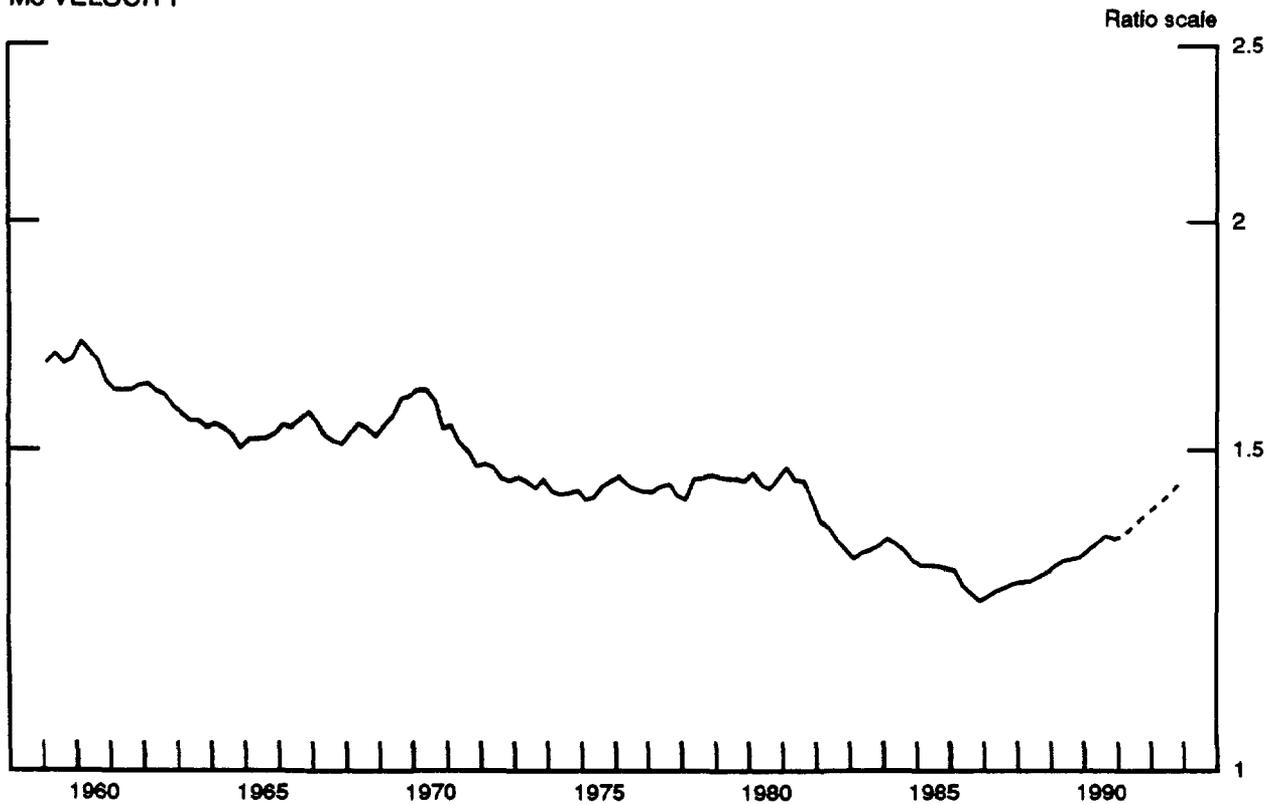
Chart 1

ACTUAL AND PROJECTED VELOCITY OF M2 AND M3*

M2 VELOCITY



M3 VELOCITY

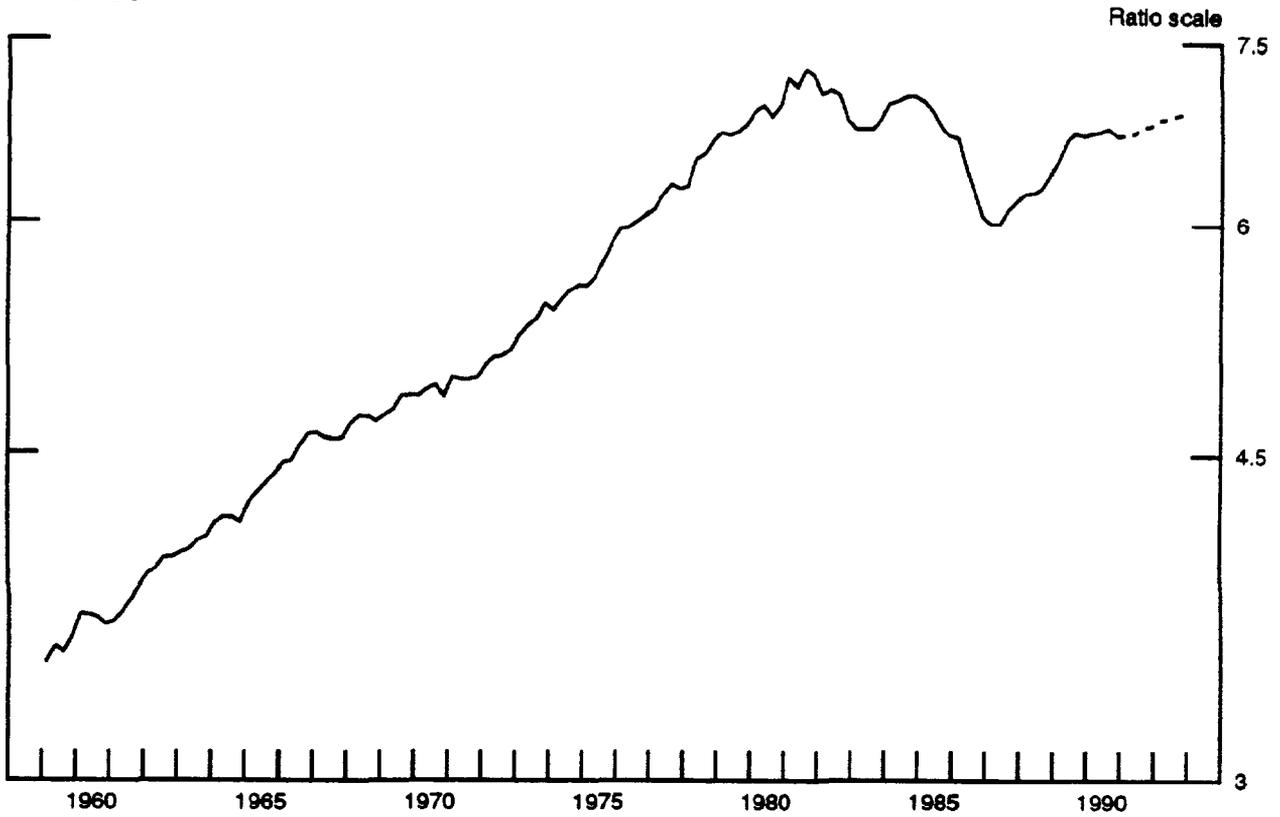


* Projections are based on staff forecasts of GNP and money.

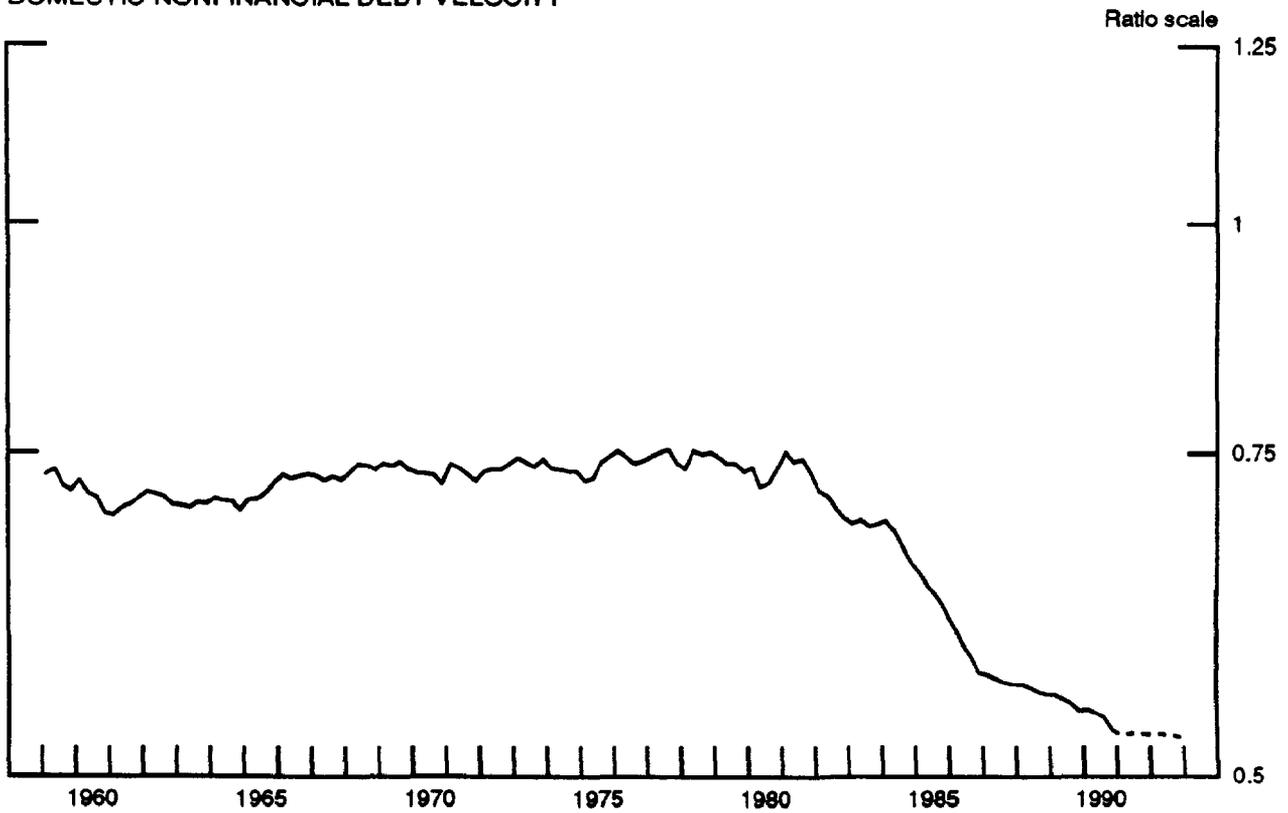
Chart 2

ACTUAL AND PROJECTED VELOCITY OF M1 AND DEBT*

M1 VELOCITY



DOMESTIC NONFINANCIAL DEBT VELOCITY



* Projections are based on staff forecasts of GNP, money, and debt.

high cost managed liabilities rather than expand their own lending as they continue their efforts to bolster capital ratios and limit risk exposure. The ongoing contraction of depository credit in the face of accelerating income growth is mirrored in an even more rapid gain in M3 velocity (see chart).

(17) Growth of domestic nonfinancial debt is projected at 6-1/2 percent over 1991. Federal government debt is anticipated to expand around 12 percent, up a bit from last year, with about 3 percentage points of this total accounted for by RTC-related outlays. Growth of the debt of nonfederal domestic sectors this year is likely to decline to a 4-3/4 percent rate, unusually slow relative to GNP. This configuration follows in part from the prominence of net exports and thus spending by foreign sectors in projected GNP; nominal gross domestic purchases rise only 1 percent this year, with credit restriction damping borrowing and credit-intensive spending by domestic sectors. The moderation in debt growth is particularly marked for households, accompanying weak housing activity and slow spending for durables. In the nonfinancial business sector, borrowing at banks and in the commercial paper market also will continue to be damped in part by cautious lender attitudes. Issuance of long-term debt is anticipated to edge up slightly, and be tilted toward higher quality issuers in a less favorable environment for restructuring activity. The worsening credit market situation of many states and localities is expected to restrain their offerings of debt instruments.

(18) As noted above, the provisional ranges of alternative I would seem to be broadly consistent the money and debt paths embodied in

the staff economic forecast. This alternative already represents a reduction from the ranges of 1990 for M2 and debt. Should the Committee wish to signal an even stronger commitment to an anti-inflation policy, alternative II would reduce the ranges a further 1/2 percentage point. The lower ceilings under this long-run alternative would call for a prompter tightening of policy should the rebound in economic activity and associated inflation outcome prove stronger than now anticipated by the staff and carry through to more rapid money growth. The upper bounds of this alternative also would inhibit a very vigorous easing in response to an unexpectedly weak economy. At the same time, the reduced floors for money growth would indicate a willingness of the Committee to tolerate rather slow monetary expansion.

(19) Alternative III reverts to the M2 and debt ranges used for 1990, rather than affirming the 1/2 percentage point reductions agreed to in July, and contains an M3 range 1/2 percentage point higher than the range used last year and tentatively set for this year. This alternative would seem most appropriate if the Committee were primarily concerned about the risk of a deep and sustained recession, especially if that risk were seen to arise from disruptions to the credit intermediation process and the associated shortfall in M2 last year. Raising the lower bounds would suggest a greater willingness to ease policy in the event that slow M2 and M3 growth were to continue. The upper bounds would ensure more scope for a pickup in money growth in response to any additional policy easing that may be warranted by economic developments. And, as the economy recovers this year, the higher ranges would allow more scope

before policy tightening were called for in case money growth should return to a more normal relationship with movements in income and opportunity costs, reversing the largely inexplicable weakness of recent quarters. The increases in all the ranges from their tentative specification last July could raise questions about Federal Reserve resolve to contain inflation, though such questioning would be muted in the context of a recession.

Short-Run Policy Alternatives

(20) Two near-term policy alternatives are presented below for Committee consideration. Under alternative B, federal funds trading would be expected to average around 6-1/4 percent, with the assumption for adjustment plus seasonal borrowing remaining at \$100 million. Under alternative A, the funds rate would decline to the area of 5-3/4 percent. Alternative A could be implemented by a reduction of the borrowing assumption of \$25 million to \$75 million.⁸ Such an approach, while technically feasible, would place the funds rate below the discount rate and the low levels of borrowing could add marginally to funds rate volatility. An alternative approach to achieving the money market conditions of alternative A would be through another half-point cut in the discount rate combined with maintenance of the borrowing assumption at \$100 million. Borrowing has been running somewhat higher, partly as difficulties in adapting to lower reserve requirements more often necessitated use of the discount window on non-settlement days to avoid overdrafts. Some of these difficulties will be alleviated as required reserve balances rise seasonally and banks opt for higher required clearing balances. Still, the Desk will have to take account of the possibility that demands for excess reserves could continue to be high and variable. At least for a time, such demands are likely to continue to be rather unpredictable day to day,

8. Because of the low levels of borrowing at present, the difference in borrowing between alternatives A and B remains unusually small. Seasonal borrowing is expected to remain low through much of the intermeeting period, but an adjustment to the borrowing assumption may be needed in March as seasonal borrowing begins its yearly uptrend.

implying more frequent spikes in borrowing and volatility in the federal funds rate.

(21) Following the recent series of policy moves by the Federal Reserve, market participants probably are not anticipating much if any further easing in the near term. Consequently, maintenance of current reserve market conditions under alternative B likely would have relatively little impact on interest rates. The dollar would remain around the lower levels reached recently, though subject to an unusual extent to political and military developments. Over a more extended period, however, long-term interest rates could back up a bit if information suggesting some revitalization of the economy, as in the staff forecast, led market participants to conclude that the easing of monetary policy had run its course for the current business cycle.

(22) With little market anticipation of an immediate further easing, money market rates under alternative A are likely to fall roughly in line with the decline of the federal funds rate. The decrease of private rates could be a bit larger than that for Treasury bill rates, as market participants viewed the policy easing process as providing increased assurance of a near-term resumption of economic growth and improved creditworthiness of borrowers in the foreseeable future. The prime rate would be lowered another 1/2 percentage point, helping to stimulate growth of bank credit. Judging from recent experience, bond rates might not decline very much. The dollar would come under significant further downward pressures.

(23) Projected growth of the monetary aggregates under the two short-term alternatives is shown in the table below. (Detailed data appear on the tables and charts on the following pages.)

	<u>Alt. A</u>	<u>Alt. B</u>
Growth from December to March		
M2	4	3-1/2
M3	4	3-3/4
M1	6	5
Growth from Q4 1990 to March		
M2	3-1/2	3
M3	3	3
M1	5	4-1/2

(24) While money growth will continue to be damped by the restructuring of depository institutions, the staff expects the lower market interest rates and opportunity costs of recent months to begin providing some lift to monetary growth in the near term. Some hints of a pickup of M2 were already in evidence in January, and an acceleration to an average pace of about 4-1/2 percent over February and March would be expected under alternative B. Under the lower money market rates of alternative A, the acceleration would be even greater, to 5-1/2 percent over the two months. To a large degree, the greater flows into M2 would be direct toward money market funds, as investors likely will continue to look askance at depository institutions and the institutions themselves continue to post relatively unattractive rates. Alternative B would leave

Alternative Levels and Growth Rates for Key Monetary Aggregates

	M2		M3		M1	
	Alt. A	Alt. B	Alt. A	Alt. B	Alt. A	Alt. B
Levels in billions						
1990 October	3324.9	3324.9	4110.5	4110.5	821.2	821.2
November	3325.7	3325.7	4111.0	4111.0	823.3	823.3
December	3330.5	3330.5	4111.8	4111.8	825.3	825.3
1991 January	3334.1	3334.1	4125.8	4125.8	826.2	826.2
February	3347.4	3345.8	4141.7	4140.6	831.7	830.9
March	3364.5	3360.0	4153.7	4151.0	837.4	835.3
Monthly Growth Rates						
1990 October	1.3	1.3	0.8	0.8	-0.9	-0.9
November	0.3	0.3	0.1	0.1	3.1	3.1
December	1.7	1.7	0.2	0.2	2.9	2.9
1991 January	1.3	1.3	4.1	4.1	1.3	1.3
February	4.8	4.2	4.6	4.3	8.0	6.8
March	6.1	5.1	3.5	3.0	8.2	6.4
Quarterly Ave. Growth Rates						
1990 Q1	6.2	6.2	2.9	2.9	5.2	5.2
Q2	3.9	3.9	1.3	1.3	4.2	4.2
Q3	2.9	2.9	1.5	1.5	3.7	3.7
Q4	2.3	2.3	1.1	1.1	3.4	3.4
1991 Q1	2.6	2.4	2.9	2.7	4.1	3.7
Nov. 90 to Mar. 91	3.5	3.1	3.1	2.9	5.1	4.4
Dec. 90 to Mar. 91	4.1	3.5	4.1	3.8	5.9	4.9
Jan. 91 to Mar. 91	5.5	4.7	4.1	3.7	8.1	6.6
Q4 89 to Q4 90	3.9	3.9	1.7	1.7	4.2	4.2
Q4 90 to Q1 91	2.6	2.4	2.9	2.7	4.1	3.7
Q4 90 to Jan. 91	1.3	1.3	2.2	2.2	2.1	2.1
Q4 90 to Feb. 91	2.5	2.3	3.0	2.9	4.1	3.7
Q4 90 to Mar. 91	3.4	3.0	3.1	2.9	5.1	4.4
1990 Target Ranges:	3.0 to 7.0		1.0 to 5.0			
1991 Target Ranges:	2.5 to 6.5		1.0 to 5.0			

Chart 3
ACTUAL AND TARGETED M2

Billions of dollars

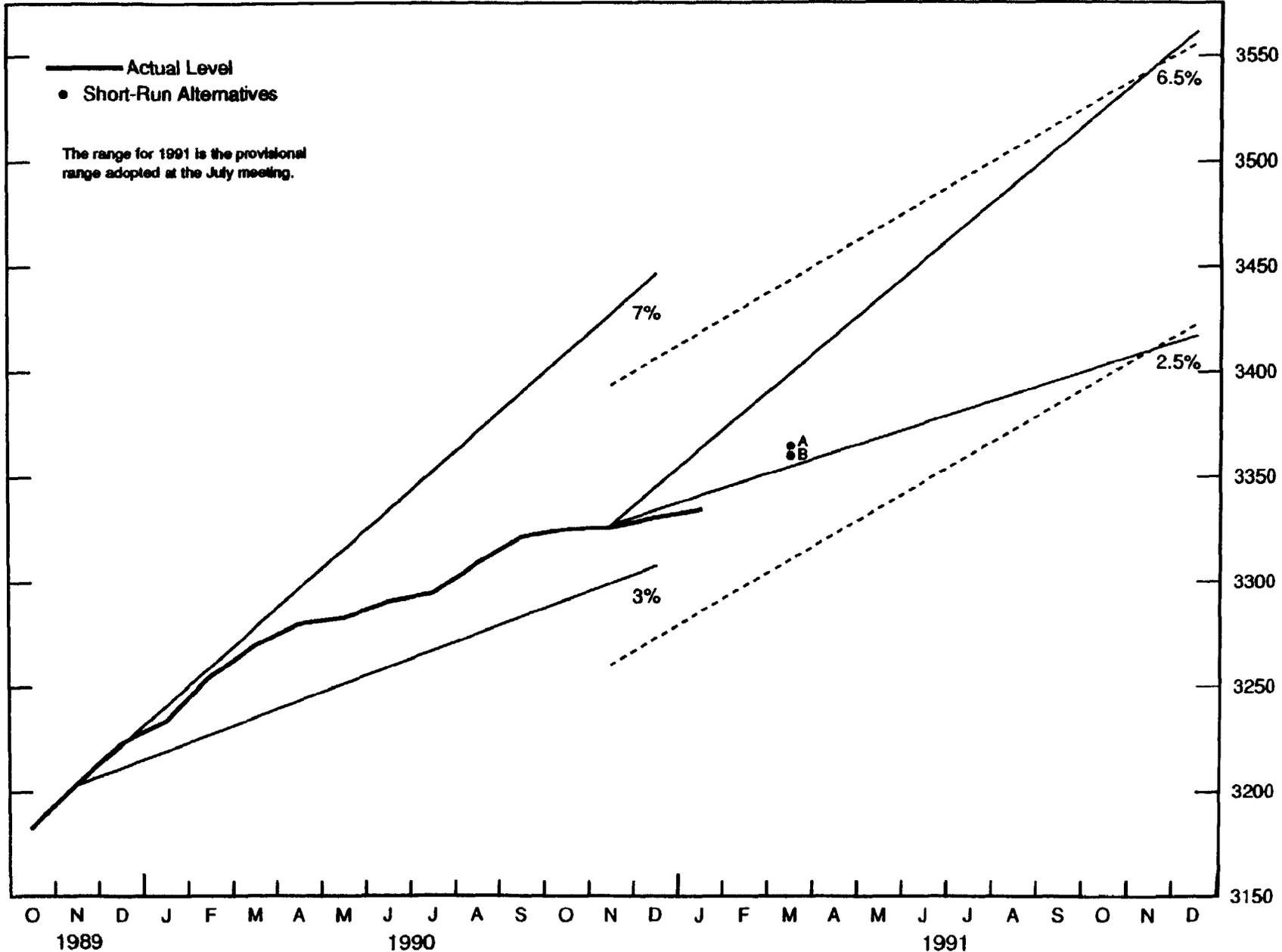


Chart 4
ACTUAL AND TARGETED M3

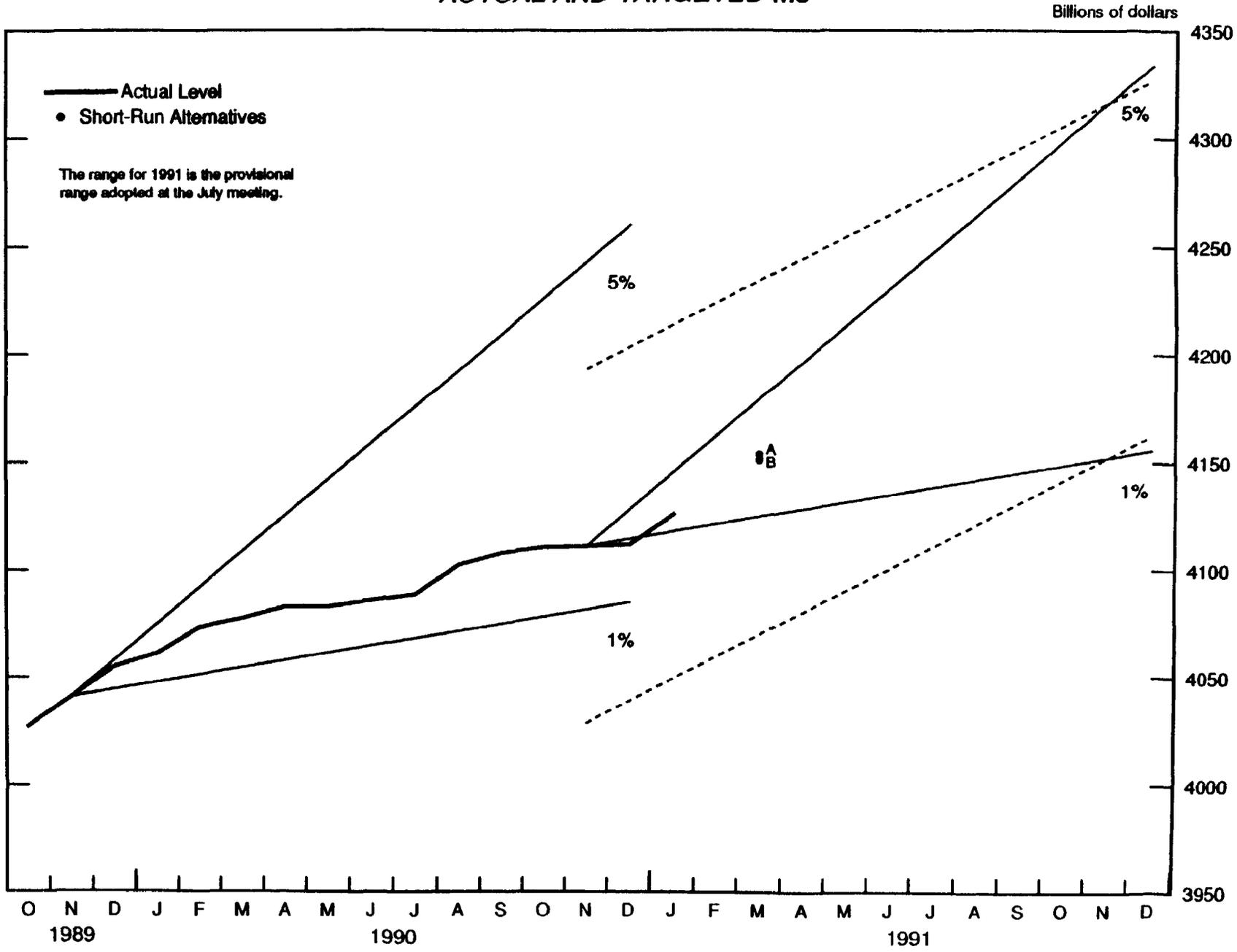


Chart 5
M1

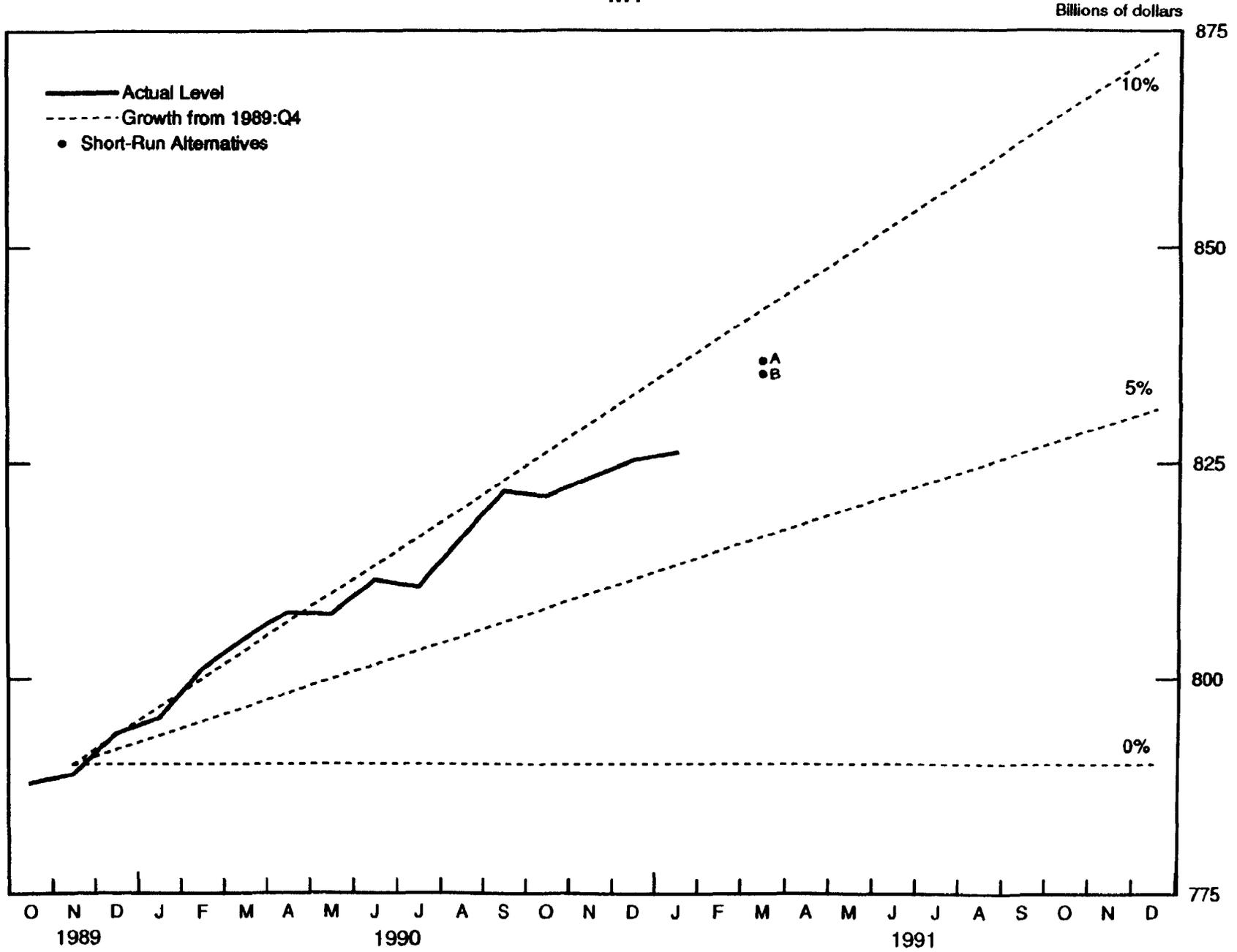
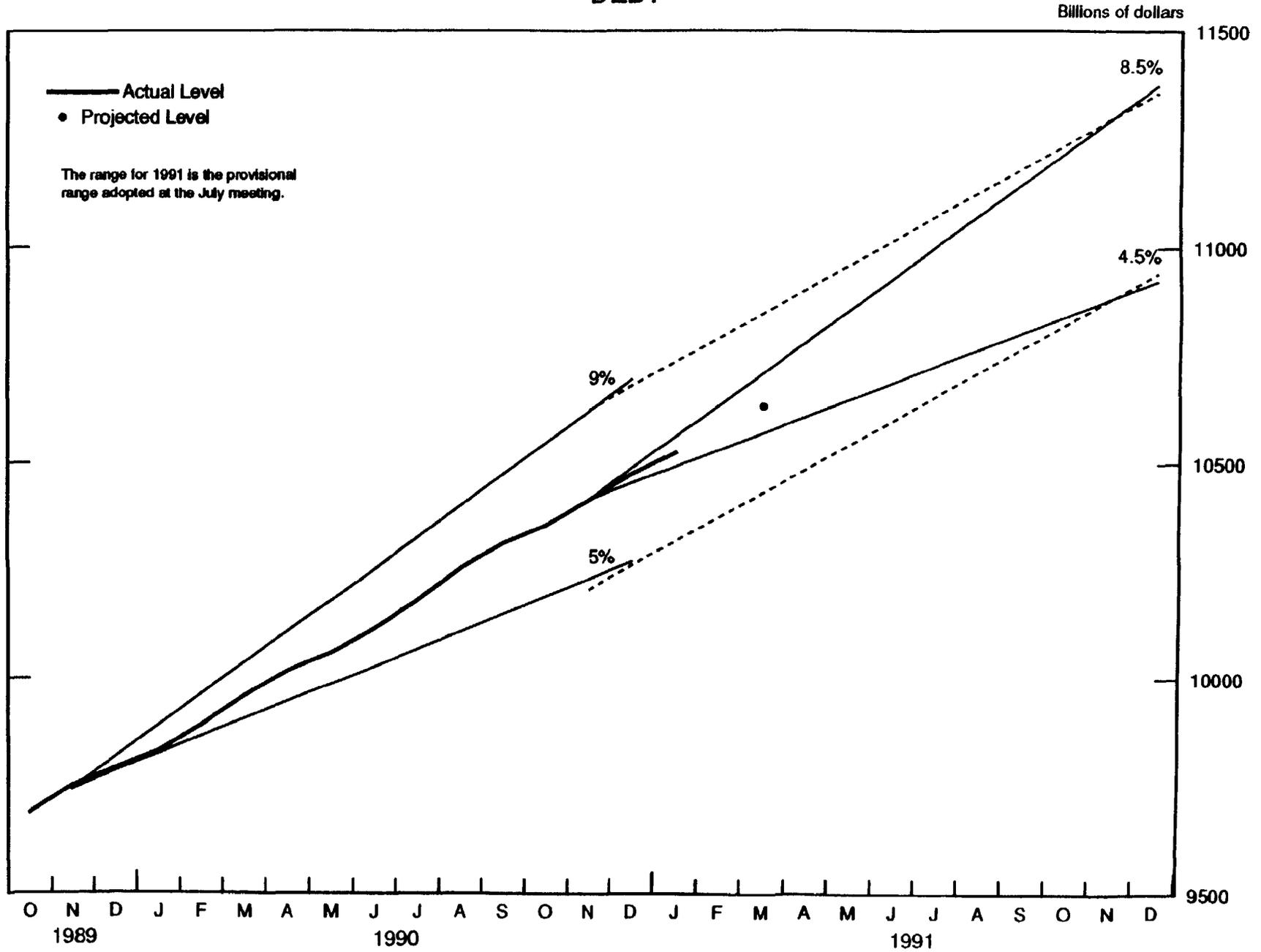


Chart 6
DEBT



M2 in March only a little above the lower bound of its 2-1/2 to 6-1/2 percent provisional target range. However, given the lags between changes in interest rates and money demand, the effects of the recent policy easings still would be boosting money growth through the second quarter, bringing M2 closer to the middle of its provisional range by June. Under alternative A, M2 still would be in the lower portion of its range by March, but would be on a trajectory to move around the midpoint by June.

(25) M3 would be expected to expand at a 3-3/4 percent pace over the December-to-March period under alternative B and a little more under alternative A. In both cases this would represent a considerable pickup from its pace over the previous three months and would leave this aggregate 3 percent at an annual rate above its fourth-quarter base, in the middle of its 1 to 5 percent provisional range for 1991. The acceleration mainly reflects greater flows to both M2- and M3-type money funds, given the temporary boost in their returns relative to market rates. Bank credit is projected to remain sluggish, increasing at only about a 2 percent rate in the first three months of the year. Thrifts, in turn, are expected to continue to shrink, though at a slower pace given constraints on RTC resources. These constraints will hold down Federal debt growth relative to late last year, and expansion of nonfederal debt is projected to remain depressed. Overall, the debt of domestic nonfinancial sectors should increase in the middle portion of its provisional 4-1/2 to 8-1/2 percent range.

Directive Language

(26) Presented below for Committee consideration is draft language relating to the Humphrey-Hawkins ranges for 1991 and to the operating paragraph for the intermeeting period.

1991 RANGES

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability, promote A RESUMPTION OF SUSTAINABLE growth in output on a sustainable basis, and contribute to an improved pattern of international transactions. In furtherance of these objectives, the Committee at THIS its meeting in July reaffirmed the range it had established RANGES in February for GROWTH OF M2 AND M3 OF ___ TO ___ PERCENT AND ___ TO ___ growth of 3 to 7 percent, RESPECTIVELY, measured from the fourth quarter of 1990 ~~1989~~-to the fourth quarter of 1991 ~~1990~~. The Committee in July also retained the monitoring range of 5 to 9 percent for the year that it had set for growth of total domestic nonfinancial debt WAS SET AT ___ TO ___ PERCENT FOR THE YEAR. With regard to M3, the Committee ANTICIPATED recognized that the ongoing restructuring of thrift depository institutions WOULD CONTINUE TO DEPRESS had depressed its growth relative to spending and total credit more than anticipated. Taking account of the unexpectedly strong M3 velocity, the Committee decided in July to reduce the ~~1990~~ range to 1 to 5 percent. For

1991, the Committee agreed on provisional ranges for monetary growth, measured from the fourth quarter of 1990 to the fourth quarter of 1991, of 2-1/2 to 6-1/2 percent for M2 and 1 to 5 percent for M3. The Committee tentatively set the associated monitoring range for growth of total domestic nonfinancial debt at 4-1/2 to 8-1/2 percent for 1991. 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, taking account of a possible change in the discount rate. Depending upon progress toward price stability, trends in economic activity, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets, slightly (SOMEWHAT) greater reserve restraint (WOULD) might or (SLIGHTLY) somewhat lesser reserve restraint would (MIGHT) be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with growth of both M2 and

M3 over the period from DECEMBER ~~November~~ through March at annual rates of about __ AND __ 4 and 1 percent, respectively.

APPENDIX A

MONEY STOCK REVISIONS

Measures of the money stock have been revised to incorporate the results of the annual benchmark and seasonal factor review. The attached tables compare growth rates of the old and revised series. These data should be regarded as **strictly confidential** until their release scheduled for February 7.

Benchmark Revisions

Data for the monetary aggregates have been benchmarked using call reports through June 1990 and other sources. These benchmark revisions boosted growth rates of all three monetary aggregates by about 1/4 point over 1990 but had only minor effects on the quarterly pattern of growth within the year. Also, estimates of deposits at institutions that do not file deposits reports were revised back to 1984, resulting in minor changes to annual growth rates of the monetary aggregates back to that year.

Seasonal Factor Revisions

Seasonal factors for the monetary aggregates continued to be estimated by the X-11 ARIMA procedure. Beginning with January 1990, the deposits components of the monetary aggregates--OCDs, savings deposits, MMDAs, small time deposits, and large time deposits--have each been adjusted with seasonal factors computed from data aggregated over banks and thrifts. Our previous procedure had been to seasonally adjust the deposit components at banks and thrifts separately, and add up the adjusted bank and thrift series to arrive at seasonally adjusted deposit totals. This remains the procedure used for computing seasonal factors applied to historical deposits data up to December 1989. The new procedure is applied to data after that month because (1) transfers of deposits from thrifts to banks have distorted bank and thrift deposit data individually more than their sum, and (2) staff analysis reveals that the seasonal patterns of nontransactions deposits at banks and thrifts are much more similar in the 1980s than they were in earlier years. Under the new procedure, the same seasonal factors are applied beginning in January 1990 to both the commercial bank and thrift components of the following series: MMDAs, other savings deposits, small time deposits, and large time deposits. With OCDs, where seasonal patterns show more differences between banks and thrifts, commercial bank data are seasonally adjusted directly, and seasonally adjusted thrift OCDs are computed as a residual between the seasonally adjusted bank OCD series and seasonally adjusted total OCDs.

Overall, revisions to seasonal factors had little effect on the broad pattern of growth during 1990. For M1 and M2, the new seasonal factors shift growth into the second quarter of 1990, while M3 growth is boosted in the fourth quarter and slightly reduced over the balance of the year.

Table A.1

Comparison of Revised and Old M1 Growth Rates
(percent changes at annual rates)

	<u>Revised</u>	<u>Old</u>	<u>Difference</u> <u>(1) - (2)</u>	<u>Difference due to</u>	
	(1)	(2)	(3)	<u>Benchmark</u>	<u>Seasonals</u>
	(1)	(2)	(3)	(4)	(5)
<u>Monthly</u>					
1989--Oct.	9.4	8.0	1.4	-0.5	1.9
Nov.	1.5	2.0	-0.5	0.4	-0.9
Dec.	7.1	8.2	-1.1	0.2	-1.3
1990--Jan.	2.7	0.0	2.7	0.5	2.2
Feb.	8.6	10.0	-1.4	0.3	-1.7
Mar.	5.4	5.1	0.3	0.3	0.0
Apr.	4.5	3.7	0.8	0.3	0.5
May	-0.3	-2.8	2.5	0.3	2.2
June	5.9	6.0	-0.1	-0.2	0.1
July	-1.2	-0.6	-0.6	0.1	-0.7
Aug.	8.6	10.2	-1.6	-0.1	-1.5
Sept.	7.8	9.3	-1.5	0.0	-1.5
Oct.	-0.9	-3.1	2.2	0.2	2.0
Nov.	3.1	3.7	-0.6	0.2	-0.8
Dec.	2.9	4.2	-1.3	0.0	-1.3
1991--Jan.	1.3	-1.6	2.9	0.2	2.7
<u>Quarterly</u>					
1989--QIV	5.0	5.1	-0.1	-0.1	0.0
1990--QI	5.2	4.8	0.4	0.3	0.1
QII	4.2	3.5	0.7	0.3	0.4
QIII	3.7	4.1	-0.4	0.0	-0.4
QIV	3.4	3.4	0.0	0.1	-0.1
<u>Semi-Annual</u>					
1990--QIV '89 to QII '90	4.8	4.2	0.6	0.3	0.3
QII '90 to QIV '90	3.6	3.8	-0.2	0.0	-0.2
<u>Annual (QIV TO QIV)</u>					
1989	0.6	0.6	0.0	0.0	0.0
1990	4.2	4.0	0.2	0.2	0.0

Table A.2

Comparison of Revised and Old M2 Growth Rates
(percent changes at annual rates)

	<u>Revised</u>	<u>Old</u>	<u>Difference</u> <u>(1) - (2)</u>	<u>Difference due to</u>	
	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>Benchmark</u>	<u>Seasonals</u>
				<u>(4)</u>	<u>(5)</u>
<u>Monthly</u>					
1989--Oct.	7.7	6.9	0.8	0.0	0.8
Nov.	7.7	7.3	0.4	0.2	0.2
Dec.	7.4	7.6	-0.2	0.1	-0.3
1990--Jan.	3.9	3.5	0.4	-0.2	0.6
Feb.	7.9	9.2	-1.3	0.1	-1.4
Mar.	5.4	5.6	-0.2	0.0	-0.2
Apr.	3.8	2.6	1.2	0.6	0.6
May	1.1	-2.0	3.1	0.7	2.4
June	2.9	3.0	-0.1	0.3	-0.4
July	1.5	1.7	-0.2	0.2	-0.4
Aug.	5.1	6.4	-1.3	0.0	-1.3
Sept.	4.5	5.2	-0.7	0.0	-0.7
Oct.	1.3	0.6	0.7	0.0	0.7
Nov.	0.3	-0.4	0.7	0.3	0.4
Dec.	1.7	2.0	-0.3	0.2	-0.5
1991--Jan.	1.3	0.6	0.7	0.0	0.7
<u>Quarterly</u>					
1989--QIV	7.2	7.1	0.1	0.1	0.0
1990--QI	6.2	6.4	-0.2	0.0	-0.2
QII	3.9	3.0	0.9	0.4	0.5
QIII	2.9	3.0	-0.1	0.2	-0.3
QIV	2.3	2.2	0.1	0.1	0.0
<u>Semi-Annual</u>					
1990--QIV '89 to QII '90	5.1	4.7	0.4	0.2	0.2
QII '90 to QIV '90	2.6	2.6	0.0	0.2	-0.2
<u>Annual (QIV TO QIV)</u>					
1989	4.7	4.6	0.1	0.1	0.0
1990	3.9	3.7	0.2	0.2	0.0

Table A.3

Comparison of Revised and Old M3 Growth Rates
(percent changes at annual rates)

	<u>Revised</u>	<u>Old</u>	<u>Difference</u> <u>(1) - (2)</u>	<u>Difference due to</u>	
	(1)	(2)	(3)	<u>Benchmark</u>	<u>Seasonals</u>
	(1)	(2)	(3)	(4)	(5)
<u>Monthly</u>					
1989--Oct.	2.8	1.4	1.4	0.2	1.2
Nov.	4.1	3.9	0.2	0.2	0.0
Dec.	4.2	4.0	0.2	0.3	-0.1
1990--Jan.	1.8	1.2	0.6	0.5	0.1
Feb.	3.5	4.7	-1.2	-0.5	-0.7
Mar.	1.2	1.4	-0.2	-0.1	-0.1
Apr.	1.6	1.4	0.2	0.7	-0.5
May	0.0	-2.1	2.1	0.8	1.3
June	0.9	1.4	-0.5	0.7	-1.2
July	0.8	1.1	-0.3	0.2	-0.5
Aug.	4.1	4.7	-0.6	-0.1	-0.5
Sept.	1.6	0.8	0.8	-0.1	0.9
Oct.	0.8	-0.4	1.2	0.0	1.2
Nov.	0.1	-0.2	0.3	0.2	0.1
Dec.	0.2	0.6	-0.4	-0.2	-0.2
1991--Jan.	4.1	3.7	0.4	0.3	0.1
<u>Quarterly</u>					
1989--QIV	2.9	2.0	0.9	0.4	0.5
1990--QI	2.9	2.9	0.0	0.1	-0.1
QII	1.3	1.0	0.3	0.4	-0.1
QIII	1.5	1.6	-0.1	0.2	-0.3
QIV	1.1	0.6	0.5	0.0	0.5
<u>Semi-Annual</u>					
1990--QIV '89 to QII '90	2.1	2.0	0.1	0.3	-0.2
QII '90 to QIV '90	1.3	1.1	0.2	0.2	0.0
<u>Annual (QIV TO QIV)</u>					
1989	3.5	3.3	0.2	0.2	0.0
1990	1.7	1.5	0.2	0.2	0.0

Table A.4

Revisions to the Monetary Aggregates
(4th quarter-to-4th quarter growth rates)
(in percent)

	M1 seasonally adjusted			M2 seasonally adjusted			M3 seasonally adjusted		
	Old	New	Diff	Old	New	Diff	Old	New	Diff
1983	10.4	10.4	-	12.2	12.2	-	9.8	9.8	-
1984	5.4	5.4	-	7.9	8.0	+1	10.6	10.7	+1
1985	12.0	12.0	-	8.9	8.7	-.2	7.8	7.6	-.2
1986	15.5	15.5	-	9.3	9.2	-.1	9.1	9.0	-.1
1987	6.3	6.3	-	4.3	4.3	-	5.8	5.8	-
1988	4.3	4.3	-	5.2	5.2	-	6.3	6.3	-
1989	.6	.6	-	4.6	4.7	+1	3.3	3.5	+2
1990	4.0	4.2	+2	3.7	3.9	+2	1.5	1.7	+2

APPENDIX B

ADOPTED LONGER-RUN GROWTH RATE RANGES FOR THE MONETARY AND CREDIT AGGREGATES
 (percent annual rates; numbers in parentheses are actual growth rates as reported at end of policy period in February Monetary Policy Report to Congress)

	<u>M1</u>	<u>M2</u>	<u>M3</u>	<u>Domestic Non-financial Debt</u>
QIV 1978 - QIV 1979 ²	3 - 6 (5.5)	5 - 8 (8.3)	6 - 9 (8.1)	7.5 - 10.5 (12.2)
QIV 1979 - QIV 1980	4 - 6.5 (7.3) ^{3, 4}	6 - 9 (9.8)	6.5 - 9.5 (9.9)	6 - 9 (7.9)
QIV 1980 - QIV 1981	3.5 - 6 (2.3) ^{3, 5}	6 - 9 (9.4)	6.5 - 9.5 (11.4)	6 - 9 (8.8) ⁶
QIV 1981 - QIV 1982	2.5 - 5.5 (8.5) ³	6 - 9 (9.2)	6.5 - 9.5 (10.1)	6 - 9 ⁷ (7.1) ⁶
QIV 1982 - QIV 1983	5 - 9 ⁸ (7.2)	7 - 10 ⁹ (8.3)	6.5 - 9.5 (9.7)	8.5 - 11.5 (10.5)
QIV 1983 - QIV 1984	4 - 8 (5.2)	6 - 9 (7.7)	6 - 9 (10.5)	8 - 11 (13.4)
QIV 1984 - QIV 1985	3 - 8 ¹⁰ (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. ¹¹ (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 ¹² (1.7)	5 - 9 (6.9)
QIV 1990 - QIV 1991 ^{**}	n.s -	2.5 - 6.5 -	1 - 5 -	4.5 - 8.5 -

n.s.--not specified.

*Growth rates in parentheses are current estimates.

**Provisional growth ranges specified at July 1990 meeting of the FOMC.

1.Targets are for bank credit until 1983; from 1983 onward targets are for domestic nonfinancial sector debt.

2. At the February 1979 meeting the FOMC adopted a QIV'78 to QIV'79 range for M1 of 1-1/2 to 4-1/2 percent. This range anticipated that shifting to ATS and NOW accounts in New York State would slow M1 growth by 3 percentage points. At the October meeting it was noted that ATS/NOW shifts would reduce M1 by no more than 1-1/2 percentage points. Thus, the longer-run range for M1 was modified to 3-6 percent.

3. The figures shown reflect target and actual growth of M1-B in 1980 and shift-adjusted M1-B in 1981. M1-B was relabeled 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).

4. 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.

(Footnotes are continued on next page)

5. Adjusted for the effects of shifts out of demand deposits and savings deposits into other checkable 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 $-4\frac{1}{2}$ to -2 and 6 to $8\frac{1}{2}$ percent, respectively. Actual M1-B growth (not shift adjusted) was 5.0 percent.
6. Adjusted for shifts of assets from domestic banking offices to International Banking Facilities.
7. Range for bank credit is annualized growth from the December 1981-January 1982 average level through the fourth quarter of 1982.
8. Base period, adopted at the July 1983 FOMC meeting, is QII'83. At the February 1983 meeting the FOMC had adopted a QIV'82 to QIV'83 target range for M1 of 4 to 8 percent.
9. Base period is the February-March 1983 average.
10. Base period, adopted at the July 1985 FOMC meeting, is QII'85. At the February 1985 meeting the FOMC had adopted a QIV'84 to QIV'85 target range for M1 of 4 to 7 percent.
11. 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.
12. At the February 1990 meeting the FOMC specified a range of $2\frac{1}{2}$ to $6\frac{1}{2}$ percent. This range was lowered to 1 to 5 percent at the July 1990 meeting.

SELECTED INTEREST RATES

(percent)

	Short Term								Long Term							
	federal funds	Treasury bills secondary market			CDs secondary market 3-month	comm paper 1-month	money market mutual fund	bank prime loan	U.S. government constant maturity yields			corporate A utility recently offered	municipal Bond Buyer	conventional home mortgages		
		3-month	6-month	1 year					3 year	10 year	30 year			secondary market fixed rate	primary market fixed rate	ARM
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
89 -- High	9.95	9.04	9.07	8.96	10.23	9.98	9.19	11.50	9.77	9.46	9.26	10.47	7.95	11.73	11.22	9.41
Low	8.38	7.54	7.35	7.15	8.24	8.35	7.87	10.50	7.60	7.78	7.85	9.26	7.19	9.92	9.68	8.34
90 -- High	8.33	7.96	8.00	7.97	8.58	8.60	8.06	10.50	9.09	9.07	9.13	10.50	7.83	10.99	10.67	8.63
Low	7.16	6.54	6.60	6.51	7.63	7.80	7.16	10.00	7.42	7.94	8.00	9.55	7.28	9.91	9.56	7.86
Monthly																
Feb 90	8.24	7.74	7.70	7.55	8.22	8.22	7.94	10.00	8.39	8.47	8.50	9.84	7.52	10.49	10.20	8.46
Mar 90	8.28	7.90	7.85	7.76	8.35	8.32	7.95	10.00	8.63	8.59	8.56	9.92	7.53	10.61	10.27	8.53
Apr 90	8.26	7.77	7.84	7.80	8.42	8.32	7.99	10.00	8.78	8.79	8.76	10.09	7.62	10.75	10.37	8.55
May 90	8.18	7.74	7.76	7.73	8.35	8.24	7.98	10.00	8.69	8.76	8.73	10.04	7.59	10.68	10.48	8.59
Jun 90	8.29	7.73	7.63	7.53	8.23	8.21	7.96	10.00	8.40	8.48	8.46	9.85	7.47	10.37	10.16	8.50
Jul 90	8.15	7.62	7.52	7.40	8.10	8.09	7.64	10.00	8.26	8.47	8.50	9.96	7.40	10.26	10.04	8.43
Aug 90	8.13	7.45	7.38	7.26	7.97	7.99	7.49	10.00	8.22	8.75	8.86	10.29	7.57	10.41	10.10	8.35
Sep 90	8.20	7.36	7.32	7.24	8.06	8.09	7.47	10.00	8.27	8.89	9.03	10.28	7.72	10.45	10.18	8.28
Oct 90	8.11	7.17	7.16	7.06	8.06	8.04	7.45	10.00	8.07	8.72	8.86	10.23	7.74	10.47	10.18	8.21
Nov 90	7.81	7.06	7.03	6.85	8.03	7.84	7.34	10.00	7.74	8.39	8.54	10.07	7.45	10.25	10.01	8.10
Dec 90	7.31	6.74	6.70	6.61	7.82	8.28	7.20	10.00	7.47	8.07	8.24	9.95	7.34	9.95	9.67	7.93
Jan 91	6.91	6.22	6.28	6.25	7.17	7.12	6.92	9.52	7.38	8.09	8.27	9.83	7.32	9.89	9.64	7.74
Weekly																
Nov 7 90	7.97	7.08	7.05	6.87	7.95	7.87	7.38	10.00	7.84	8.55	8.68	10.15	7.53	10.41	10.09	8.09
Nov 14 90	7.94	7.06	7.04	6.86	7.98	7.88	7.34	10.00	7.74	8.45	8.60	10.03	7.42	10.17	10.02	8.11
Nov 21 90	7.80	7.08	7.04	6.83	7.96	7.83	7.35	10.00	7.70	8.32	8.48	10.03	7.41	10.14	9.93	8.08
Nov 28 90	7.56	7.04	6.99	6.81	8.11	7.80	7.27	10.00	7.66	8.28	8.44	10.03	7.35	10.19	9.90	8.08
Dec 5 90	7.60	7.02	6.96	6.82	8.18	8.11	7.26	10.00	7.64	8.23	8.38	9.91	7.33	9.94	9.81	8.04
Dec 12 90	7.25	6.88	6.75	6.68	7.63	7.89	7.21	10.00	7.43	8.01	8.17	9.92	7.28	9.91	9.56	7.91
Dec 19 90	7.29	6.77	6.70	6.59	7.69	8.04	7.16	10.00	7.42	8.01	8.17	9.96	7.36	9.96	9.64	7.86
Dec 26 90	7.16	6.54	6.60	6.51	8.01	8.60	7.16	10.00	7.48	8.13	8.29	9.99	7.39	9.97	9.68	7.92
Jan 2 91	7.17	6.46	6.49	6.43	7.75	8.49	7.37	9.93	7.41	8.07	8.24	9.85	7.32	9.80	9.56	7.78
Jan 9 91	6.40	6.43	6.44	6.36	7.32	7.30	7.08	9.50	7.38	8.10	8.29	9.96	7.40	9.97	9.63	7.76
Jan 16 91	6.77	6.10	6.21	6.21	7.32	7.25	6.91	9.50	7.43	8.21	8.40	9.77	7.34	9.93	9.75	7.74
Jan 23 91	6.88	6.10	6.22	6.21	7.13	7.01	6.79	9.50	7.38	8.05	8.20	9.80	7.31	9.84	9.61	7.69
Jan 30 91	7.46	6.19	6.23	6.19	6.91	6.88	6.76	9.50	7.35	8.04	8.22	9.65	7.24	9.70	9.56	7.75
Daily																
Jan 25 91	7.59	6.17	6.23	6.21	6.87	6.84	..	9.50	7.36	8.06	8.24	..	..	..	..	..
Jan 31 91	8.18	6.19	6.20	6.13	6.88	6.99	..	9.50	7.30	8.03	8.21	..	..	..	..	..
Feb 1 91	6.75 _p	6.00	5.97	5.91	6.51	6.73	..	9.50	7.10 _p	7.89 _p	8.07 _p	..	..	..	..	..

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

FEB. 4, 1991

Period	Money stock measures and liquid assets					Bank credit	Domestic nonfinancial debt ¹			
	M1	M2	nontransactions components		M3	L	total loans and investments	U.S. government ¹	other ¹	total ¹
			in M2	in M3 only				8	9	
	1	2	3	4	5	6	7			10
ANN. GROWTH RATES (%) :										
ANNUALLY (Q4 TO Q4)										
1988	4.2	5.2	5.5	10.7	6.3	7.2	7.7	8.0	9.5	9.2
1989	0.6	4.7	6.1	-0.6	3.5	4.8	7.5	7.5	7.8	7.7
1990	4.2	3.9	3.8	-6.4	1.7		5.2	11.0	5.6	6.9
QUARTERLY AVERAGE										
1990-1st QTR.	5.2	6.2	6.5	-9.6	2.9	2.8	5.3	6.8	6.0	6.1
1990-2nd QTR.	4.2	3.9	3.8	-9.0	1.3	0.9	6.5	9.7	6.1	6.9
1990-3rd QTR.	3.7	2.9	2.6	-4.0	1.5	2.3	6.6	14.3	5.3	7.4
1990-4th QTR.	3.4	2.3	1.9	-3.6	1.1		2.1	11.8	4.7	6.4
MONTHLY										
1990-JAN.	2.7	3.9	4.3	-6.3	1.8	1.3	2.9	4.1	5.3	5.0
FEB.	8.6	7.9	7.7	-13.8	3.5	1.9	9.2	8.3	6.8	7.2
MAR.	5.4	5.4	5.4	-15.4	1.2	2.9	10.0	12.8	7.1	8.4
APR.	4.5	3.8	3.5	-7.1	1.6	1.4	5.2	7.6	6.6	6.8
MAY	-0.3	1.1	1.5	-4.3	0.0	-4.2	3.2	7.5	4.6	5.3
JUNE	5.9	2.9	1.8	-7.1	0.9	4.8	7.1	14.9	4.5	6.9
JULY	-1.2	1.5	2.3	-2.3	0.8	1.2	6.9	13.8	6.0	7.8
AUG.	8.6	5.1	4.1	-0.2	4.1	2.7	10.3	18.6	5.5	8.6
SEP.	7.8	4.5	3.4	-10.6	1.6	6.0	0.1	11.1	5.3	6.7
OCT.	-0.9	1.3	2.1	-1.5	0.8	0.8	0.9	6.2	4.4	4.9
NOV.	3.1	0.3	-0.6	-0.5	0.1	2.4	1.5	16.2	3.9	6.9
DEC.	2.9	1.7	1.3	-6.1	0.2		2.5	12.9	5.0	6.9
1991-JAN. pe	1	1	1	16	4					
LEVELS (\$BILLIONS) :										
MONTHLY										
1990-AUG.	816.5	3308.8	2492.3	793.6	4102.4	4939.3	2707.8	2438.9	7817.8	10256.6
SEP.	821.8	3321.2	2499.4	786.6	4107.8	4963.8	2708.5	2461.5	7852.1	10313.6
OCT.	821.2	3324.9	2503.7	785.6	4110.5	4967.0	2710.9	2474.3	7881.0	10355.3
NOV.	823.3	3325.7	2502.5	785.3	4111.0	4977.0	2714.2	2507.7	7906.8	10414.5
DEC.	825.3	3330.5	2505.2	781.3	4111.8		2719.8	2534.7	7939.6	10474.4
WEEKLY										
1990-DEC. 3	821.9	3326.2	2504.3	780.2	4106.4					
10	822.8	3327.6	2504.8	780.6	4108.2					
17	825.7	3331.1	2505.4	786.2	4117.3					
24	827.7	3331.2	2503.4	781.2	4112.3					
31	826.8	3334.6	2507.9	778.0	4112.6					
1991-JAN. 7	824.9	3326.4	2501.5	785.8	4112.2					
14 p	821.9	3326.3	2504.5	784.9	4111.2					
21 p	826.1	3334.8	2508.7	792.7	4127.4					

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

Data on this table include revisions from the 1991 benchmark and seasonal review.

Components of Money Stock and Related Measures

seasonally adjusted unless otherwise noted

FEB. 4, 1991

Period	Currency	Demand deposits	Other checkable deposits	Overnight RPs and Eurodollars NSA ¹	MMDAs	Savings deposits	Small denomination time deposits ²	Money market mutual funds		Large denomination time deposits ³	Term RPs NSA ⁴	Term Eurodollars NSA ⁴	Savings bonds	Short-term Treasury securities	Commercial paper ⁵	Bankers acceptances
								general purpose and broker/dealer ⁶	institutions only							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
LEVELS (\$BILLIONS) :																
ANNUALLY (4TH QTR.)																
1988	210.8	287.3	280.1	83.4	505.8	424.5	1022.4	237.5	86.7	538.8	123.2	102.8	108.8	266.8	326.6	40.5
1989	220.9	278.9	282.9	76.1	482.0	402.9	1142.4	308.9	101.4	565.0	106.4	80.2	116.8	321.5	350.4	40.4
1990	245.0	277.0	292.8	78.2	506.4	411.1	1163.5	344.1	121.9	510.1	92.9	72.1				
MONTHLY																
1989-DEC.	222.2	278.7	285.2	77.3	486.1	404.1	1145.9	313.6	101.9	563.5	98.6	81.0	117.5	327.4	349.2	40.7
1990-JAN.	224.5	277.6	285.8	81.5	488.2	406.0	1146.5	318.4	102.5	560.0	97.4	74.2	117.9	330.7	345.0	40.3
FEB.	226.6	279.4	287.5	82.3	491.8	408.7	1146.8	324.2	103.4	554.9	100.4	68.4	118.4	327.3	345.6	38.5
MAR.	228.4	278.9	289.8	81.9	495.7	410.2	1149.9	325.9	105.2	549.3	98.4	66.7	119.2	336.9	344.1	37.2
APR.	230.3	278.1	291.7	79.4	499.3	411.5	1152.2	327.0	106.9	543.7	98.2	65.3	119.9	330.0	351.9	36.0
MAY	231.9	275.8	292.0	83.2	500.5	411.3	1153.5	325.3	107.6	540.5	99.3	67.1	120.7	315.5	349.1	35.4
JUNE	233.7	276.3	293.7	82.3	502.3	411.8	1154.6	327.5	108.1	538.0	102.2	64.4	121.4	332.0	349.1	34.7
JULY	235.7	275.6	291.7	84.0	503.4	412.7	1156.0	329.2	109.8	535.0	100.4	65.1	122.2	336.4	348.2	33.0
AUG.	238.4	278.0	292.1	82.7	505.9	412.7	1157.7	335.8	114.0	529.2	101.8	68.2	123.0	335.7	345.9	32.3
SEP.	241.5	279.1	293.0	81.6	507.4	412.3	1159.8	339.2	116.2	521.8	98.0	69.4	123.8	342.6	357.9	31.8
OCT.	243.9	277.1	291.8	83.5	506.7	411.5	1162.0	341.7	119.6	515.1	95.2	71.1	124.5	341.9	357.6	32.5
NOV.	244.9	277.1	292.9	77.5	506.7	411.1	1163.2	343.0	120.5	510.8	94.8	72.6	125.2	349.0	357.9	33.9
DEC.	246.3	276.8	293.8	73.6	505.9	410.7	1165.4	347.7	125.7	504.5	88.8	72.7				

1. Net of money market mutual fund holdings of these items.
 2. Includes retail repurchase agreements. All IRA and Keogh accounts at commercial banks and thrift institutions are subtracted from small time deposits.
 3. Excludes IRA and Keogh accounts.
 4. Net of large denomination time deposits held by money market mutual funds and thrift institutions.
- p-preliminary

Data on this table include revisions from the 1991 benchmark and seasonal review.

NET CHANGES IN SYSTEM HOLDINGS OF SECURITIES¹
Millions of dollars, not seasonally adjusted

February 1, 1991

Period	Treasury bills			Treasury coupons					Federal agencies redemptions (-)	Net change outright holdings total ⁵	Net RPs ⁶	
	Net purchases ²	Redemptions (-)	Net change	Net purchases ^{3 4}				Redemptions (-)				Net Change
				within 1 year	1-5	5-10	over 10					
1987	13,233	9,329	3,905	3,359	9,779	2,441	1,858	370	17,366	276	20,994	-11,033
1988	7,635	2,200	5,435	2,176	4,685	1,404	1,398	---	9,665	587	14,513	1,557
1989	1,468	12,730	-11,263	327	946	258	284	500	1,315	442	-10,390	-1,683
1989 --Q1	-3,842	2,200	-6,042	---	-228	-20	---	---	-248	188	-6,477	-5,591
--Q2	2,496	2,400	96	172	1,361	287	284	---	2,104	125	2,075	924
--Q3	-6,450	3,200	-9,650	---	-163	-9	---	---	-172	99	-9,921	-893
--Q4	9,264	4,930	4,333	155	-24	---	---	500	-369	31	3,934	3,877
1990 --Q1	-3,799	1,400	-5,199	100	100	---	---	---	200	---	-5,000	-4,061
--Q2	10,892	---	10,892	50	100	---	---	---	150	78	10,964	509
--Q3	5,115	---	5,115	---	---	---	---	---	---	70	5,045	95
--Q4	2,055	3,000	-945	325	---	---	---	---	225	35	-755	12,614
1990 January	-1,065	1,000	-2,065	---	---	---	---	---	---	---	-2,065	-8,435
February	-3,277	400	-3,677	---	---	---	---	---	---	---	-3,677	4,417
March	543	---	543	100	100	---	---	---	200	---	742	-43
April	5,796	---	5,796	---	100	---	---	---	100	78	5,818	-1,260
May	3,365	---	3,365	---	---	---	---	---	---	---	3,365	-378
June	1,732	---	1,732	50	---	---	---	---	50	---	1,782	2,146
July	297	---	297	---	---	---	---	---	---	39	254	2,863
August	4,197	---	4,197	---	---	---	---	---	---	37	4,160	1,110
September	631	---	631	---	---	---	---	---	---	---	631	-3,878
October	933	---	933	---	---	---	---	---	---	34	899	-1,224
November	3,341	---	3,341	325	---	---	---	---	325	---	3,666	509
December	-2,219	3,000	-5,219	---	---	---	---	---	-100	1	-5,319	13,329
Weekly												
November 7	---	---	---	---	---	---	---	---	---	---	---	-3,137
November 14	356	---	356	---	---	---	---	---	---	---	356	6,460
November 21	84	---	84	---	---	---	---	---	---	---	84	-3,975
November 28	---	---	---	---	100	---	---	---	100	---	100	3,500
December 5	2,880	---	2,880	---	225	---	---	---	225	---	3,105	-3,851
December 12	-151	---	-151	---	---	---	---	---	---	---	-151	1,844
December 19	-681	1,000	-1,681	---	-100	---	---	---	-100	---	-1,781	-3,063
December 26	-235	1,000	-1,235	---	---	---	---	---	---	1	-1,235	2,064
January 2	-1,151	1,000	-2,151	---	---	---	---	---	---	---	-2,151	-1,374
January 9	-100	1,000	-1,100	---	---	---	---	---	---	---	-1,100	-5,175
January 16	---	---	---	---	---	---	---	---	---	---	---	-854
January 23	---	---	---	---	---	---	---	---	---	---	---	2,847
January 30	---	---	---	---	---	---	---	---	---	---	---	-1,259
Memo: LEVEL (bil. \$) ⁷												
January 30			118.6	26.0	58.5	13.3	24.7		122.5		247.5	-5.1

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. Weekly net purchases of Treasury coupons are summed over all maturities.

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

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

7. The levels of agency issues were as follows:

	within 1 year	1-5	5-10	over 10	total
January 30	2.6	2.5	1.0	0.2	6.3