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# MONETARY POLICY ALTERNATIVES

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Prepared for the Federal Open Market Committee

By the staff Board of Governors of the Federal Reserve System

June 29, 1990

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) Since the May meeting of the FOMC, open market operations have continued to be directed toward maintaining unchanged pressures on reserve positions, and the federal funds rate has remained close to 8-1/4 percent. The borrowing assumption was raised to \$350 million immediately after the meeting and was increased by another \$100 million in two steps in response to the continued upswing in seasonal borrowing. In two of the three complete maintenance periods since the last meeting, actual adjustment plus seasonal borrowing ran well above the specified level. In one case, the overage reflected an operational problem at a money center bank that brought it to the window over a long holiday weekend. In the other, the Desk elected not to meet a large projected reserve deficiency on the last day of a maintenance period, owing to a concern that, with federal funds trading below 8-1/4 percent and the release of weak retail sales figures that morning, the market might misread a move to add reserves as a sign of a policy easing. In the maintenance period completed last Wednesday, seasonal borrowing was \$329 million, and adjustment credit dropped back to \$54 million.

(2) Long-term interest rates are down about 1/4 percentage point on balance over the past seven weeks in response to evidence of more softness in the economy. Markets also were buoyed by statements suggesting better prospects of an accord on substantial reductions in the federal deficit. With the economy weaker, the view became more prevalent that the next Federal Reserve move would be an easing; nevertheless, no policy

action was seen as imminent, and most short-term interest rates have remained close to their mid-May levels. Quality spreads in both long- and short-term markets are generally unchanged. In equity markets, the DJIA reached a record high when bond rates hit their lows in mid-June, but by the end of the month the index had fallen 2 percent from its high and was only fractionally above its level at the time of the May meeting.

(3) Expectations that monetary policy would not be easing in the near term appeared to support the dollar through much of the intermeeting period, as did political developments in the Soviet Union and Japan. The dollar fell later in the period, partly in response to prospects for lower interest rates associated with possible budget deficit reduction. The weighted average foreign exchange value of the dollar against G-10 currencies was about unchanged on balance over the period. It appreciated against the yen and continental European currencies, but declined against the Canadian dollar and by nearly 4 percent against sterling, which benefited mainly from official indications that the U.K. would be joining the exchange rate mechanism of the EMS, perhaps as early as this fall.

. The Desk

purchased in the market \$573 million against DM for the Treasury's account, initiating a program to reduce U.S. foreign currency balances by \$2 billion, some portion of which may be done directly with foreign authorities. Foreign interest rates declined slightly, on average, but rose in Japan and, especially, in France--two countries that faced downward pressure on their currencies.

(4) After declining in May, M2 is estimated to have increased modestly in June, while M3 was about unchanged.<sup>1</sup> Both aggregates showed essentially no growth from March to June, falling well short of the 4 and 3 percent rates of growth that the Committee had expected for M2 and M3, respectively.<sup>2</sup> Relative to their annual target cones, M2 is now somewhat above, and M3 somewhat below, the lower bounds. In part, the weakness of these aggregates reflected the direct or indirect effects of the faster pace of RTC activity. That agency acquired \$20 billion in assets in the process of resolving thrifts, in effect substituting government debt for thrift liabilities, many of which would be in M3. With thrift assets declining and bank credit growth moderate, total assets at depository institutions and associated funding needs showed essentially no growth over the second quarter, stalling M3 growth.

(5) The quickened pace of the thrift cleanup in the second quarter also has affected M2. The ready availability of deposit bases from failed thrifts and the reduced funding needs of capital-constrained thrifts have helped restrain interest rates on deposits. Unusually low retail deposit rates relative to Treasury rates prompted households to reallocate portfolios away from monetary assets; sizable increases in noncompetitive tenders at bill and note auctions suggest that a portion of

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1. M1, which also fell in May, rebounded in June, as runoffs in demand deposits abated and OCDs bounced back.

2. A detailed examination of the determinants of money growth so far this year is presented in a memorandum, "The Behavior of the Monetary Aggregates in the First Half of 1990," which was distributed to the Committee earlier this week.

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

	Apr.	May	June <sup>P</sup>	Mar. to June <sup>P</sup>	QIV'89 to June <sup>P</sup>
<u>Money and credit aggregates</u>					
M1	3.9	-2.8	5.1	2.0	3.9
M2	1.9	-2.9	1.6	0.2	3.6
M3	1.0	-2.6	-0.2	-0.6	1.1
Domestic nonfinancial debt	6.3	6.6	n.a.	6.5 <sup>1</sup>	7.0 <sup>2</sup>
Bank credit	5.1	4.1	8.9	6.1	6.1
<u>Reserves measures</u>					
Nonborrowed reserves <sup>3</sup>	-1.4	-14.5	-2.5	-6.1	-0.6
Total reserves	-0.4	-9.8	-0.8	-3.7	-0.1
Monetary base	7.1	3.5	8.6	6.4	7.8
Memo: (Millions of dollars)					
Adjustment plus seasonal borrowing	224	459	540	--	--
Excess reserves	897	962	795	--	--

n.a. - not available.

p - preliminary.

1. March to May.

2. Through May.

3. 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.

these funds has been redirected toward the Treasury market.<sup>3</sup> In addition, the behavior of money market mutual funds was an important component of the slowing in M2. These funds, which had been experiencing huge inflows, dropped sharply in May and recovered only a bit in June. Their weakness apparently was related to the buoyancy of the stock and bond markets, which drew investors into longer-term and equity instruments. Nevertheless, overall M2 growth was unexpectedly slow even taking into account the higher opportunity costs and an apparent slowdown in nominal income and consumption growth in the second quarter. Velocity rose at an estimated 3-1/2 percent rate, about 2 percentage points more than might have been expected from the change in opportunity costs.

(6) The debt of domestic nonfinancial sectors is estimated to have risen a bit faster than nominal GNP in the second quarter, maintaining its growth at the 7-percent midpoint of its 1990 monitoring range. Federal debt has been boosted by the funding needs of the thrift bailout, but growth of the debt of most other sectors has been more subdued in recent months. Household borrowing has been lagging well behind last year's pace, with consumer credit running at just under a 2 percent rate through April and more recent evidence from commercial banks indicating continued weak increases. Available data--including real estate loans at banks and home sales and construction--suggest that mortgage credit growth

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3. Contributing to the weakness of M2 likely was the departure of some brokered and other deposits at resolved thrifts which had been attracted by premium rates. About half of the senior financial officers surveyed last week whose institutions had purchased deposits from failed thrifts reported lowering rates paid on some of their acquired retail deposits and abrogating brokered CD contracts.

also has slowed. Borrowing by nonfinancial firms in long-term markets rebounded in June. Business borrowing from banks and in the commercial paper market resumed in June after contracting in the previous month.

(7) The extent to which this year's slowdown in private sector debt growth can be attributed to a shift in credit conditions is an open question. Much of the slackening owes to consumer and home mortgage credit; it is unlikely that these types of loans have been significantly affected by a constriction of credit supplies by depository intermediaries, in part because such credit is easily securitized, though lenders generally may be reacting to perceptions of higher risks in a soft economy. In surveys, bankers continue to report increasing willingness to lend to consumers, though by a narrower margin than previously, and information from auto finance companies suggests only a modest tightening of terms. In the case of home mortgages, price and non-price terms to borrowers appear little changed in recent months, suggesting that the reorienting of mortgage flows away from the thrift industry continues to proceed with minimal disruption. For businesses, the cost of borrowing likely has risen so far this year, reflecting not only the general increase in market rates since the end of 1989, but also the large number of downgradings--implying that, with quality spreads little changed, more companies have to pay higher premiums for funds. At banks, there is some evidence of a widening of spreads and a tightening of terms on loans to other-than-investment-grade businesses. In many cases, this owes to the economic climate in the particular industry or region where the borrower is located. For example, banks report a particularly acute reluctance to



extend credit to finance commercial real estate or highly leveraged transactions. In addition, however, it appears that bank lenders have become more sensitive to asset-quality issues, perhaps partly in reaction to increased losses on past loans or to a perception that regulators and the financial markets are evaluating intermediaries' balance sheets more harshly. Certainly, the major banking organizations downgraded by private credit rating agencies in recent weeks and months have experienced adverse impacts on their funding costs. Capital costs also have risen, constraining lending activity at a time when asset write-downs and poor profitability have impaired capital positions.

### Alternative Long-Run Strategies

(8) As background for the Committee's consideration of ranges for money and credit growth in 1990 and 1991, the table below presents three alternative longer-run strategies. The baseline strategy, strategy I, embodies the staff's greenbook projection for 1990 and 1991 and an extension through the mid-1990s of the logic underlying that forecast--the maintenance of a modest amount of slack in the economy and gradual deceleration of prices. Alternative strategies II and III embody somewhat tighter and easier monetary policies, indexed by M2 growth 1 percentage point slower and faster, respectively, than the baseline.<sup>4</sup> The extension past 1992 and the outcomes from the alternatives are based on simulations using the Board's large-scale econometric model. The paths for M2 beyond 1990 assume that movements in the velocity of this aggregate return more to normal over time as the contraction of the thrift industry abates and depository institutions, banks in particular, become more willing to absorb the public's core deposits, in line with historical relationships. The pickup in money growth under all the alternatives mainly reflects the restoration of more normal velocity behavior, and not a more stimulative policy over time.

(9) In the baseline strategy, the economy continues to expand below its potential growth rate through 1991, as real interest rates are above their long-run equilibrium levels. Accordingly, pressures on resources are relieved, as indicated by the rise in the unemployment rate to

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4. With only half of the current year remaining, monetary growth rates for 1990 under the alternatives differ by 1/2 percentage point.

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
	(QIV to QIV percent change)					
M2						
I (baseline)	3-1/2	4-1/2	5-1/2	6	6	6
II (tighter)	3	3-1/2	4-1/2	5	5	5
III (easier)	4	5-1/2	6-1/2	7	7	7
Prices: GNP fixed-weight price index						
I	4-1/2	4-1/4	4	3-3/4	3-1/2	3-1/4
II	4-1/2	4	3-1/4	2-3/4	2-1/4	2
III	4-1/2	4-1/2	4-1/2	4-1/2	4-3/4	5
Real GNP						
I	1-1/2	2-1/4	2-1/2	2-1/2	2-1/2	2-1/2
II	1-1/4	1-1/2	1-3/4	2-1/4	2-1/2	3
III	1-3/4	3	3	3	2-3/4	2
				(QIV level)		
Unemployment rate						
I	5-3/4	6	6-1/4	6-1/4	6-1/4	6-1/4
II	6	6-1/2	7	7	7	7
III	5-3/4	5-3/4	5-1/2	5-1/4	5-1/4	5-1/2

6-1/4 percent, somewhat above the assumed natural rate. Growth in output moves up to the growth of potential output, but with real rates remaining relatively high, the degree of slack in 1992 is preserved for the remainder of the projection period, and as a result costs and prices decelerate. After a few years, nominal interest rates begin to drift down roughly in keeping with the decline in inflation. As a consequence, M2 growth remains around 6 percent despite the decline in growth in nominal income.

(10) In the tighter alternative, strategy II, greater progress is made in lowering inflation. By 1995, the inflation rate is down to 2 percent, more than a percentage point below the baseline. The additional progress is achieved through higher nominal and real interest rates and the accompanying firmer dollar over the next few years, which hold output

growth below that of potential for a longer period of time, with unemployment rising to 7 percent. The more rapid decline in inflation under this strategy enables nominal interest rates to fall below baseline levels over the final years of the projection period. In the model used for the simulation, inflation expectations are adaptive, reflecting only current and previous price movements. Progress in lowering inflation could be achieved even more quickly, while the degree of slack in resource markets could be lessened, if the pursuit of the tighter strategy itself were to have a salutary effect on inflation expectations--that is, a policy credibility effect--so that wage and price decisions were aligned more closely with diminished growth in nominal demand.

(11) Monetary policy in the easier alternative, strategy III, fosters economic growth sufficient to limit the increase in the unemployment rate, which remains at or below the assumed natural rate. Combined with a weaker dollar, this degree of pressure on resources implies inflation remaining around a 4-1/2 percent annual pace before drifting higher later in the period. Interest rates decline initially, but to restrain monetary growth in the context of faster nominal GNP expansion, interest rates would need to move higher in the latter half of the period. By the mid-1990s, nominal rates would return to current levels, above those in the baseline and tighter alternatives, though real interest rates would still be lower.

(12) The table below presents inflation rates derived from two alternative sets of simulations of the P\* model. The upper panel uses the money growth rates of the three strategies discussed above. These money

growth rates cycled through the P\* model yield substantially more restraint on prices than they do in the greenbook forecast with the large-scale model extensions. This is because the P\* model assumes velocity tending back toward its historical average level, whereas the earlier simulations incorporate the staff's expectation of a permanent upward shift in M2 velocity over the next two years. In the lower panel the P\* model has been adjusted to incorporate the same permanent velocity shift embodied in the large-scale model exercise. With this adjustment, the inflation rates in the P\* model show the same basic patterns as in the large-scale model simulation, though price pressures are somewhat less in the P\* model. However, in the baseline simulation of the large model, inflation would be expected to decelerate further after 1995 because the unemployment rate is above the natural rate; the adjusted P\* model suggests no further drop in inflation because the price level equals P\* at the end of 1995.

P\* Model Simulations of Inflation

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
Prices: GNP fixed-weight price index						
		(QIV to QIV percent change)				
A. With no adjustment of model for velocity shifts						
I (baseline)	4-1/2	3-1/2	2	1-1/2	1-1/4	1-1/4
II (tighter)	4-1/2	3-1/4	1-1/2	3/4	0	-1/4
III (easier)	4-1/2	3-3/4	2-1/2	2-1/2	2-1/2	3
B. With adjustment of model for velocity shifts <sup>1</sup>						
I (baseline)	4-1/2	4	3-1/2	3-1/4	3	3
II (tighter)	4-1/2	4	2-3/4	2-1/4	1-3/4	1-1/4
III (easier)	4-1/2	4-1/4	4	4-1/4	4-1/2	4-3/4

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1. Adds to the level of V\* 2-1/2 percent over 1990, 1-1/2 percent over 1991, and 1 percent over 1992.

Long-Run Ranges

(13) The table below gives projections of growth in money and debt believed to be consistent with the greenbook forecast for the economy for 1990 and 1991. For the balance of 1990 and in 1991, the growth of the aggregates is expected to be affected by many of the unusual factors that restrained money growth in the first half of 1990. These include a continued high level of RTC activity with associated deposit transfers and government assumption of thrift assets, further downsizing by marginally solvent thrifts, and constraints on growth of credit at banks, which are expected to remain cautious lenders in a sluggish economy and under pressure with regard to the amount and cost of their capital. The combination of these factors should continue to hold down the appetite of depositories for funds, restraining M3 directly and M2 as well, partly through low deposit offering rates. Because these forces have few precedents, there is substantial uncertainty about their nature, their persistence, and their effects on money and other variables. With little experience to go on, staff has placed some weight on the behavior of money of the second quarter. This is reflected in somewhat slower projected growth rates for both M2 and M3 than would be expected on the basis of past relationships of money with income, market interest rates, and total credit growth.

Projections of Money and Debt Growth

	<u>Current</u> <u>Range</u> <sup>1/</sup>	<u>QIV 1989</u> <u>to June</u>	<u>1990</u> <sup>1/</sup>	<u>1991</u> <sup>1/</sup>
M2	3 to 7	3-1/2	3-1/2	4-1/2
M3	2-1/2 to 6-1/2	1-1/2	1	1-1/2
Debt	5 to 9	7 <sup>2/</sup>	7	6-1/2
M1		4	4	4
Nominal GNP		6-1/2 <sup>3/</sup>	6	6-1/2

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1. QIV 1989 to QIV 1990.
2. QIV 1989 to May 1990.
3. QIV 1989 to QII 1990.

(14) Money growth is expected to strengthen somewhat over coming quarters as some of the forces depressing money growth abate gradually and depository institutions and depositors adapt. Thrift assets should shrink about as rapidly in the second half of the year as in the second quarter, but the pace of asset runoffs should diminish somewhat next year. RTC is expected to maintain its current pace of resolutions through 1991, but might not have to take as large a proportion of assets onto its balance sheet on the assumption that the most impaired thrifts are dealt with this year. The expansion of bank credit, though limited, is expected to rebound moderately in the second half of 1990 and 1991, perhaps as lower deposit offering rates enhance lending margins. Nonetheless, total expansion of depository credit will continue to be extraordinarily weak and M3 is expected barely to increase over the second half of 1990--ending the year well below the lower end of its current range--and to increase only 1-1/2 percent in 1991.



(15) The pickup in M2 relative to its second-quarter pace is expected to be somewhat more pronounced. Core deposit inflows, though strengthening a bit, are expected to remain quite sluggish in the second half of 1990; banks are expected to reduce deposit rates, as they have in June, to improve margins and keep M2 deposit inflows, augmented by deposits purchased from thrifts, in line with moderate credit growth. However, money market mutual funds, after declining in the second quarter, are expected to be fairly robust. Money funds already have leveled off in recent weeks, perhaps reflecting a waning of portfolio reallocations into bond and stock funds. Money funds also should absorb some of the demand for M2 assets left unsatisfied by the banks and thrifts as deposit rates are depressed relative to yields available on money funds. The faster M2 growth over the balance of this year would keep this aggregate within, though near the lower end of, its current range. In 1991, M2 growth should be bolstered by slightly faster income growth. Nevertheless, the expansion of core deposits is expected to remain somewhat below the projected growth of income, though by a declining margin as lower offering rates on deposits eventually serve as an inducement to substitute retail deposits for managed liabilities or to extend credit.

(16) On balance, M2 growth is projected to be 4-1/2 percent in 1991. Slow growth of money in 1990 and 1991 represents a modicum of monetary restraint, placing moderate downward pressure on inflation on the staff forecast, operating through both the credit mechanism and real interest rates. But, owing to the velocity shift, the slow growth of M2 overstates the degree of monetary restraint. The counterpart of the

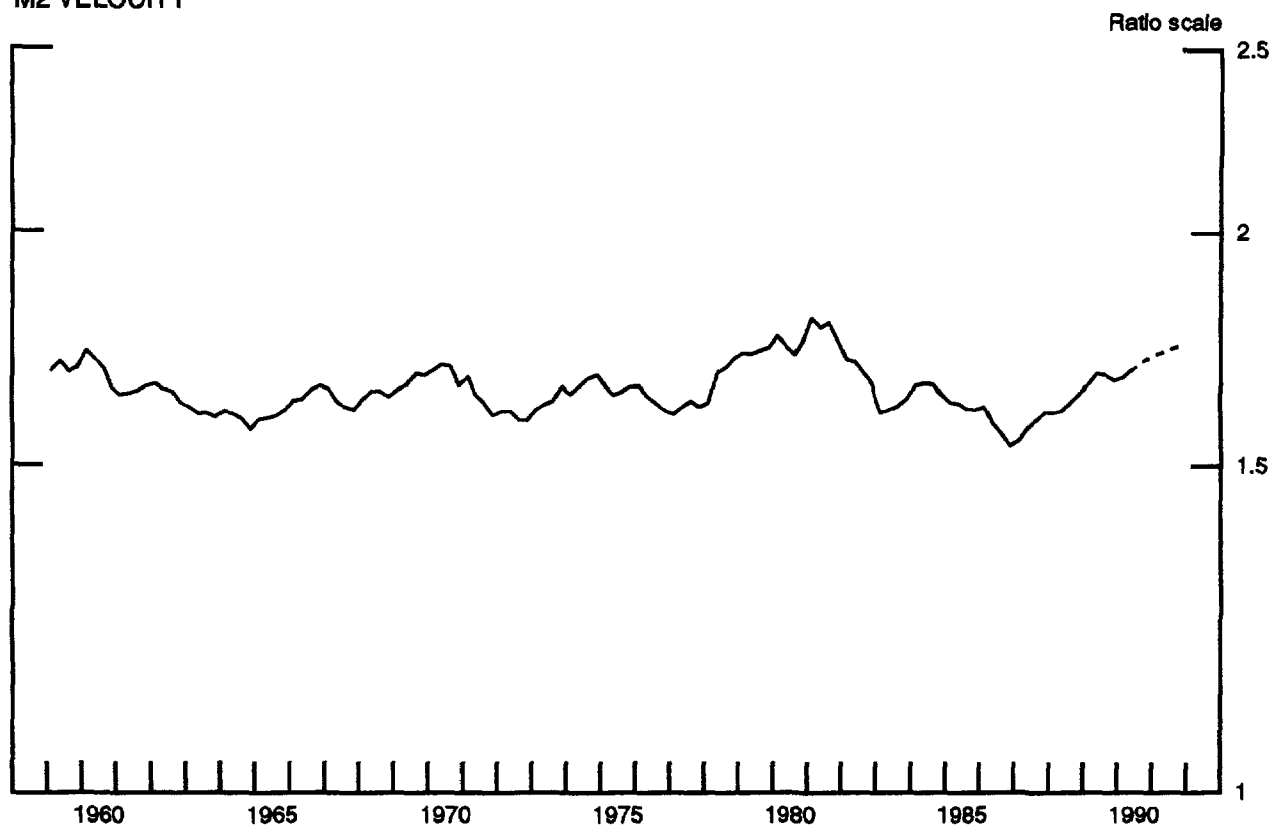
velocity shift is the redirection of credit flows out of depositories, which by and large occurred at low cost and thus has relatively small effects on spending. As can be seen on the charts, M2 velocity is projected to rise 2 percent in 1991 to an unusually high level. The rise in M3 velocity is even more unusual in relation to its historical downward trend (see chart). M2 shortfalls relative to the standard M2 demand and offering rate models amount to 2-1/2 percentage points in 1990 and 1-1/2 percentage points in 1991.

(17) Debt of domestic nonfinancial sectors is expected to continue to expand at around a 7 percent pace over the quarters just ahead before decelerating next year to 6-1/2 percent as federal borrowing moderates. The slowing of federal borrowing owes to deficit reduction measures and RTC activities, which are expected to be financed increasingly through the proceeds of asset sales. RTC borrowing adds 3/4 percentage point to growth of the debt measure in 1990 and 1/2 percentage point in 1991. Debt of nonfinancial sectors increases around 6 percent over the balance of 1990 and in 1991, about in line with spending. Debt of nonfinancial corporations should continue growing around the reduced rate of the first half of this year; the less favorable climate for corporate restructuring leads to some reduction in borrowing to finance share retirements, while weak profits and small advances in capital expenditures boost external financing needs. In the household sector, borrowing is expected to remain well below the pace of recent years as slow growth in consumer spending, especially on durables, holds down expansion in consumer credit and relatively weak real estate activity restrains mortgage borrowing.

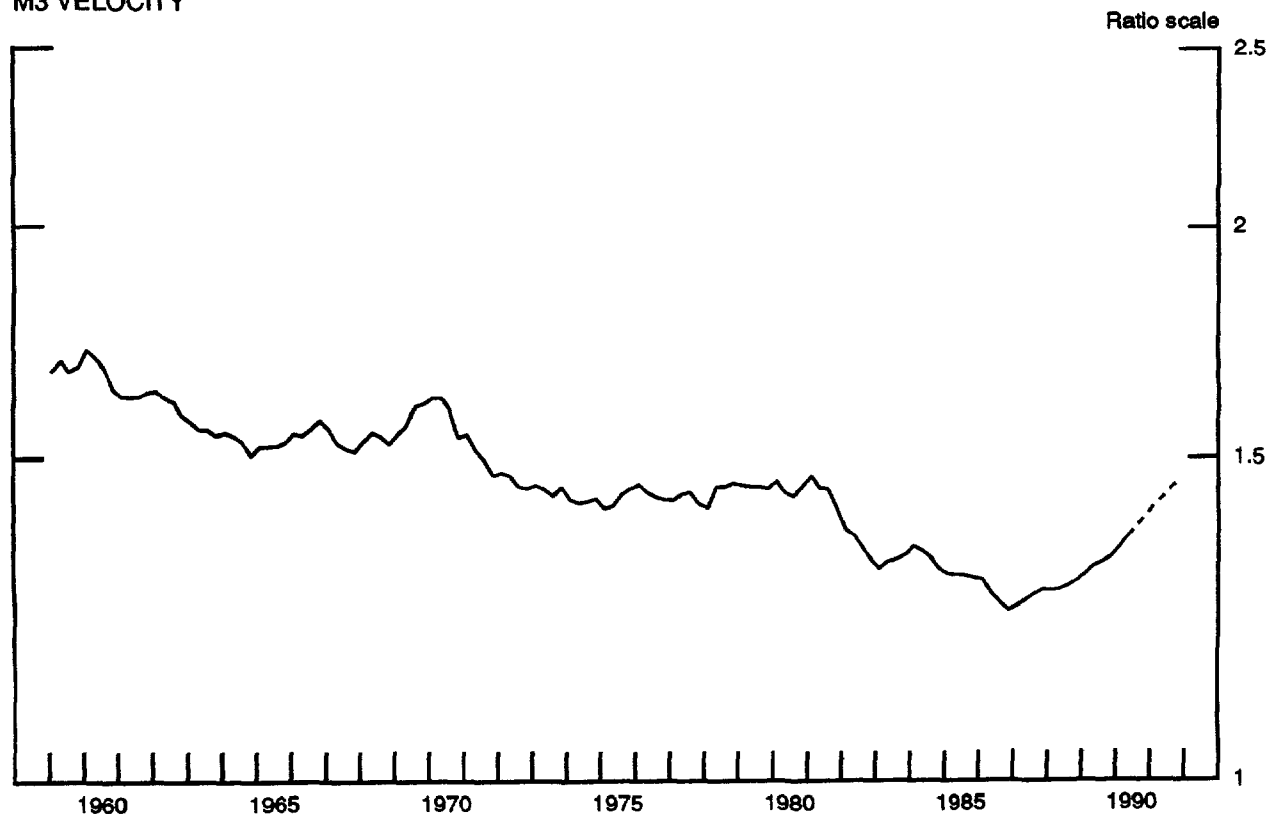
Chart 1

# ACTUAL AND PROJECTED VELOCITY OF M2 AND M3\*

## M2 VELOCITY



## M3 VELOCITY

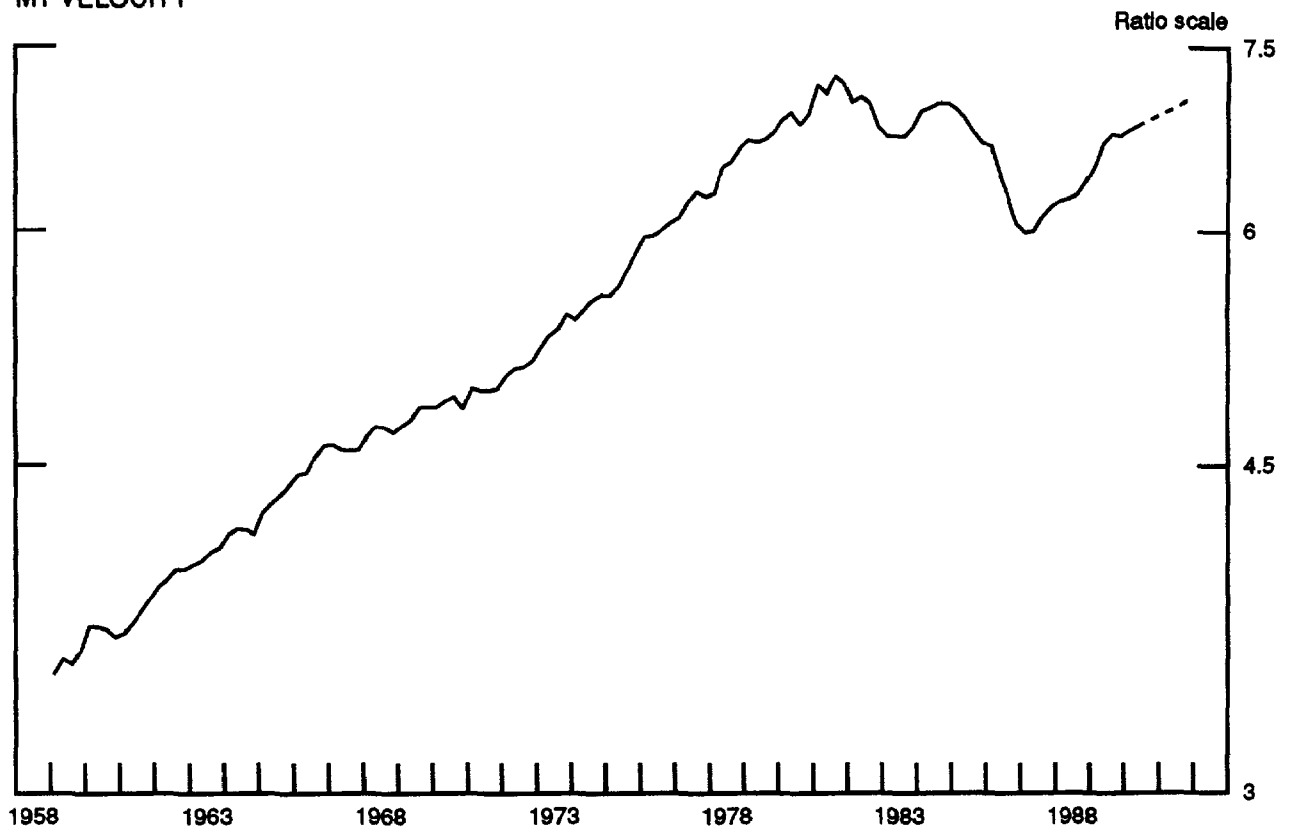


\* Projections are based on staff forecasts of GNP and money.

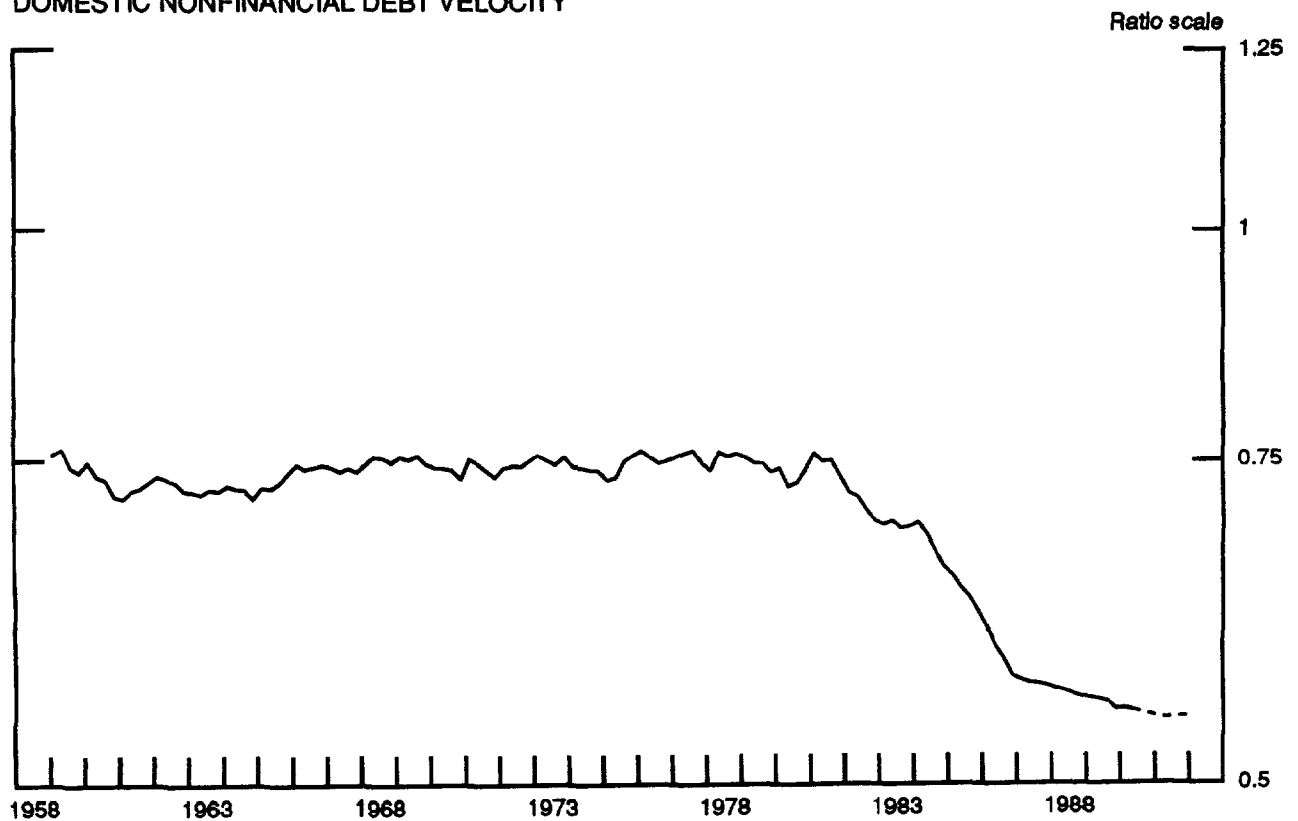
Chart 2

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.

(18) Against this background, the table below presents the current ranges for 1990 and one alternative to take account of the shift in velocity embodied in the staff forecast.

Money and Debt Growth in 1990  
(QIV to QIV percent change)

	<u>Current Range</u>	<u>Alternative</u>	<u>Projection</u>
M2	3 to 7	2 to 6	3-1/2
M3	2-1/2 to 6-1/2	0 to 4	1
Debt	5 to 9	5 to 9	7

(19) The staff forecasts for M2 and debt fall within their current ranges. M2 however, could well fall short of the range, and retention of this range might imply that the Committee would seriously consider easing policy in such a case. If the risks were thought to be on the side of a weaker economy, which would show through to M2 growth, the Committee might want to retain this range and resist money falling below the range. If, however the Committee thought there was a good chance that it would not want to react to an M2 shortfall--because such a shortfall was more likely to represent a further shift in money demand or a needed element of additional restraint should spending and inflation turn out to be undesirably strong--then it might want to adjust the M2 range downward, as in the alternative presented. It seems highly probable that M3 will undershoot its current range, with most of the weakness reflecting the contraction of the thrift industry and the ready replacement of their home mortgage activities through the mortgage securities market. In these circumstances, the Committee could reduce the M3 range as a technical matter to take

account of the ongoing shift in credit flows, or it could announce to Congress that it was deemphasizing the M3 range, in light of the thrift effects, the size of which are highly uncertain.

(20) Many of the same issues present themselves in considering ranges for 1991. The alternatives for M2 and M3 given below are the same as given for 1990, but with a possible reduction in debt growth as well. As in 1990, a reduction in the M2 range would take account of the expected shift in its demand, and symbolize the Committee's commitment to disinflation, with the lower bound providing more scope in the context of the demand shift to resist a resurgence in spending and inflation pressures. Likewise, the M3 range might be lowered on account of the expected continued shrinkage of thrifts. Either the current or alternative ranges for debt would easily encompass the staff's forecast. Carrying the 1990 ranges for M2 and M3 into 1991 might be especially appropriate at this time since the usual uncertainties about conditions in the economy at the end of 1990 are compounded by the difficulties of predicting the behavior of monetary velocities. In addition, M2 growth close to the 7 percent upper end of the existing range may be appropriate if there were a substantial and sustained tightening of fiscal policy. In these circumstances, a more accommodative monetary policy, involving lower interest rates and more rapid money growth, might be consistent with meeting the Committee's objectives.

Money and Debt Growth in 1991  
(QIV to QIV percent change)

	<u>Current</u> <u>1990 Range</u>	<u>Alternative</u>	<u>Projection</u>
M2	3 to 7	2 to 6	4-1/2
M3	2-1/2 to 6-1/2	0 to 4	1-1/2
Debt	5 to 9	4 to 8	6-1/2

**Short-Run Policy Alternatives**

(21) Three near-term alternatives for monetary policy are presented below for Committee consideration. Under alternative B, federal funds would continue to trade around 8-1/4 percent in association with adjustment plus seasonal borrowing at the discount window starting out at \$450 million. Alternative A embodies an expected federal funds rate of 7-3/4 percent and discount borrowing of \$400 million, while alternative C incorporates a funds rate of 8-3/4 percent and borrowing of \$500 million. With seasonal borrowing typically rising another \$75 million to its peak in August, increases in the borrowing specification likely would be needed as the intermeeting period progresses to keep the borrowing allowance consistent with the expected funds rate under each alternative.

(22) Under alternative B, market interest rates probably would vary around current levels. The structure of interest rates does not appear to have built in strong convictions of a near-term adjustment to monetary policy, but does contain a hint of a 1/4 percentage point decline in the funds rate by fall. This impression could persist for some time, if incoming data conform to the greenbook forecast of continued slow economic growth and no visible change in price trends. Under these circumstances, the foreign exchange value of the dollar also should remain around recent levels, absent unexpected repercussions of the economic and monetary union in Germany or policy moves by other major trading partners. Both interest and exchange rates could be affected, however, by developments regarding prospective federal borrowing. Unless RTC activity slows



appreciably after midyear, which the staff does not believe likely, Treasury borrowing could raise federal debt to its current statutory ceiling, possibly as soon as early August, adding uncertainty to the credit markets by potentially disrupting the midquarter refunding. The approach of the debt ceiling also could heighten expectations of an imminent budget accord, and intensify speculation on a possible shift in monetary policy.

(23) Growth rates for the monetary aggregates projected to accompany the three alternatives are presented in the table below. (The table and charts on the following pages show more detailed data.) These growth rates reflect the staff's assessment that the thrift restructuring and other factors have reduced the path of money growth consistent with any given combination of income and interest rates. Thus, even under the essentially stable interest rates of alternative B, the staff now foresees M2 increasing at a 3 percent annual rate from June to September, only a little faster than in June, leaving this aggregate 3-1/2 percent at an

	<u>Alt. A</u>	<u>Alt. B</u>	<u>Alt. C</u>
Growth from June to September			
M2	4-1/2	3	1-1/2
M3	1-1/2	1	1/2
M1	5-1/2	4	2-1/2
Growth from QIV' 89 to September			
M2	4	3-1/2	3
M3	1-1/4	1	1
M1	4-1/2	4	3-1/2
Associated federal funds rate ranges	6 to 10	6 to 10	7 to 11

Alternative Levels and Growth Rates for Key Monetary Aggregates

	M2			M3			M1		
	Alt. A	Alt. B	Alt. C	Alt. A	Alt. B	Alt. C	Alt. A	Alt. B	Alt. C
Levels in billions									
1990 April	3271.5	3271.5	3271.5	4064.9	4064.9	4064.9	807.4	807.4	807.4
May	3263.6	3263.6	3263.6	4056.1	4056.1	4056.1	805.5	805.5	805.5
June	3268.0	3268.0	3268.0	4055.5	4055.5	4055.5	808.9	808.9	808.9
July	3277.0	3274.3	3271.6	4059.9	4058.9	4057.9	812.3	811.6	810.9
August	3289.0	3282.2	3275.4	4065.0	4062.3	4059.6	816.0	814.3	812.6
September	3304.0	3291.7	3279.4	4070.6	4065.6	4060.6	820.0	817.0	814.0
Monthly Growth Rates									
1990 April	1.9	1.9	1.9	1.0	1.0	1.0	3.9	3.9	3.9
May	-2.9	-2.9	-2.9	-2.6	-2.6	-2.6	-2.8	-2.8	-2.8
June	1.6	1.6	1.6	-0.2	-0.2	-0.2	5.1	5.1	5.1
July	3.3	2.3	1.3	1.3	1.0	0.7	5.0	4.0	3.0
August	4.4	2.9	1.4	1.5	1.0	0.5	5.5	4.0	2.5
September	5.5	3.5	1.5	1.7	1.0	0.3	5.9	4.0	2.1
Quarterly Ave. Growth Rates									
1989 Q3	6.9	6.9	6.9	3.9	3.9	3.9	1.8	1.8	1.8
Q4	7.0	7.0	7.0	1.8	1.8	1.8	5.1	5.1	5.1
1990 Q1	6.0	6.0	6.0	2.6	2.6	2.6	4.8	4.8	4.8
Q2	2.3	2.3	2.3	0.4	0.4	0.4	3.5	3.5	3.5
Q3	2.7	1.8	1.0	0.6	0.3	0.0	4.4	3.5	2.6
Mar. 90 to June 90	0.2	0.2	0.2	-0.6	-0.6	-0.6	2.0	2.0	2.0
June 90 to Sept 90	4.4	2.9	1.4	1.5	1.0	0.5	5.5	4.0	2.5
Q4 89 to Q2 90	4.2	4.2	4.2	1.5	1.5	1.5	4.2	4.2	4.2
Q4 89 to June 90	3.6	3.6	3.6	1.1	1.1	1.1	3.9	3.9	3.9
Q4 89 to Aug. 90	3.7	3.4	3.1	1.2	1.1	1.0	4.3	4.0	3.7
Q4 89 to Sept 90	3.9	3.4	2.9	1.2	1.1	0.9	4.4	4.0	3.5
1990 Target Ranges:	3.0 to 7.0			2.5 to 6.5					

Chart 3  
**ACTUAL AND TARGETED M2**

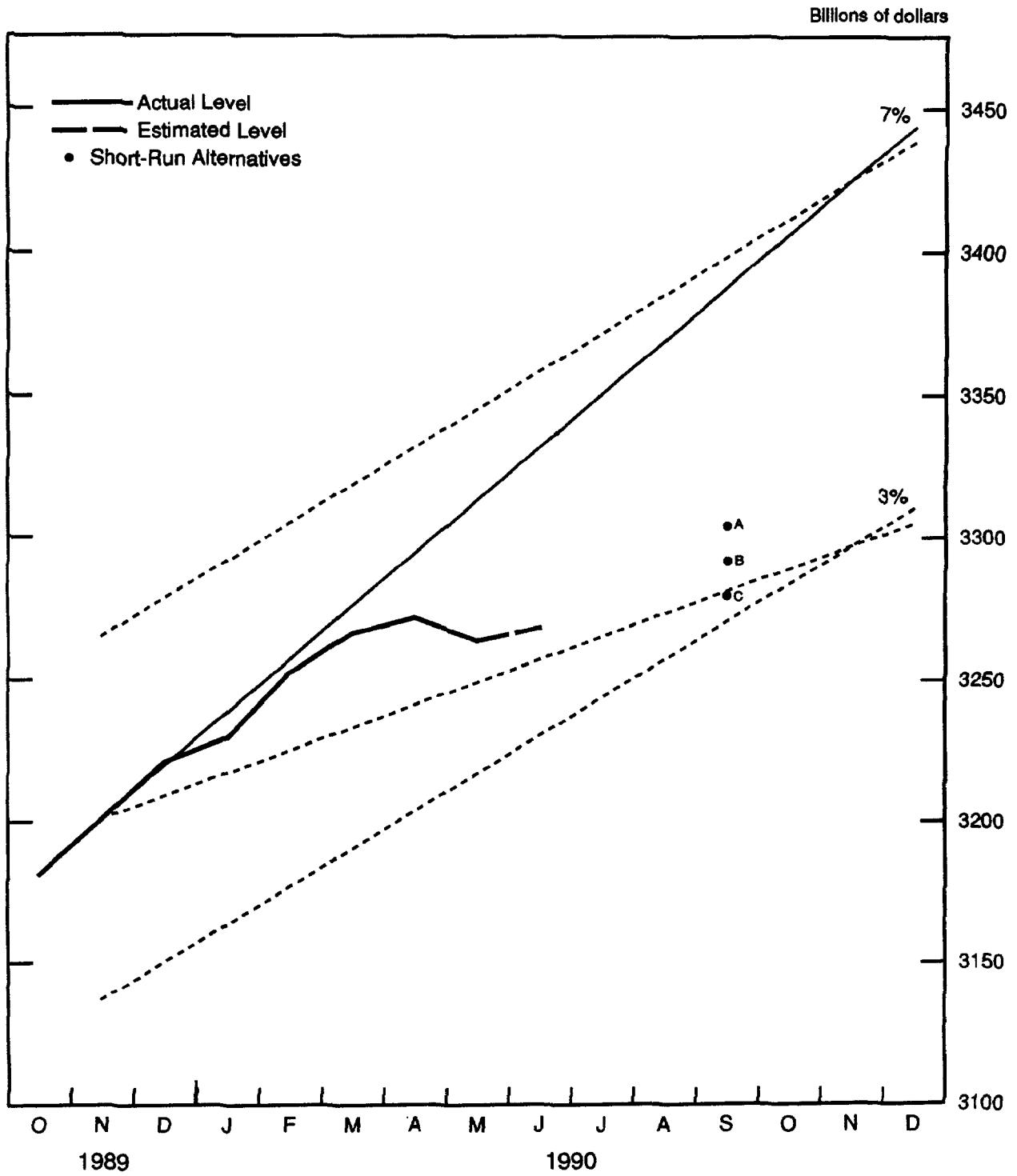


Chart 4  
**ACTUAL AND TARGETED M3**

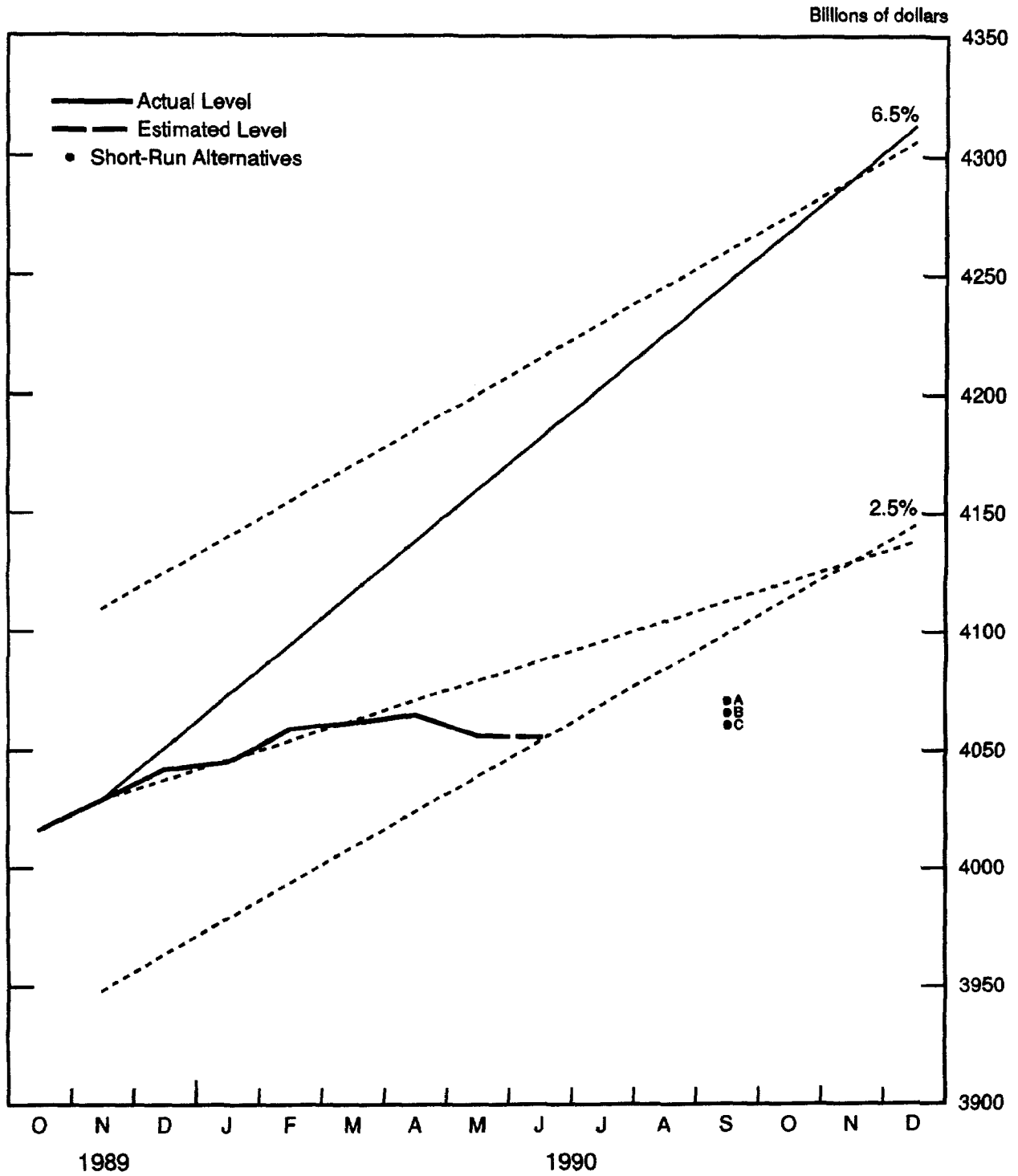


Chart 5

M1

Billions of dollars

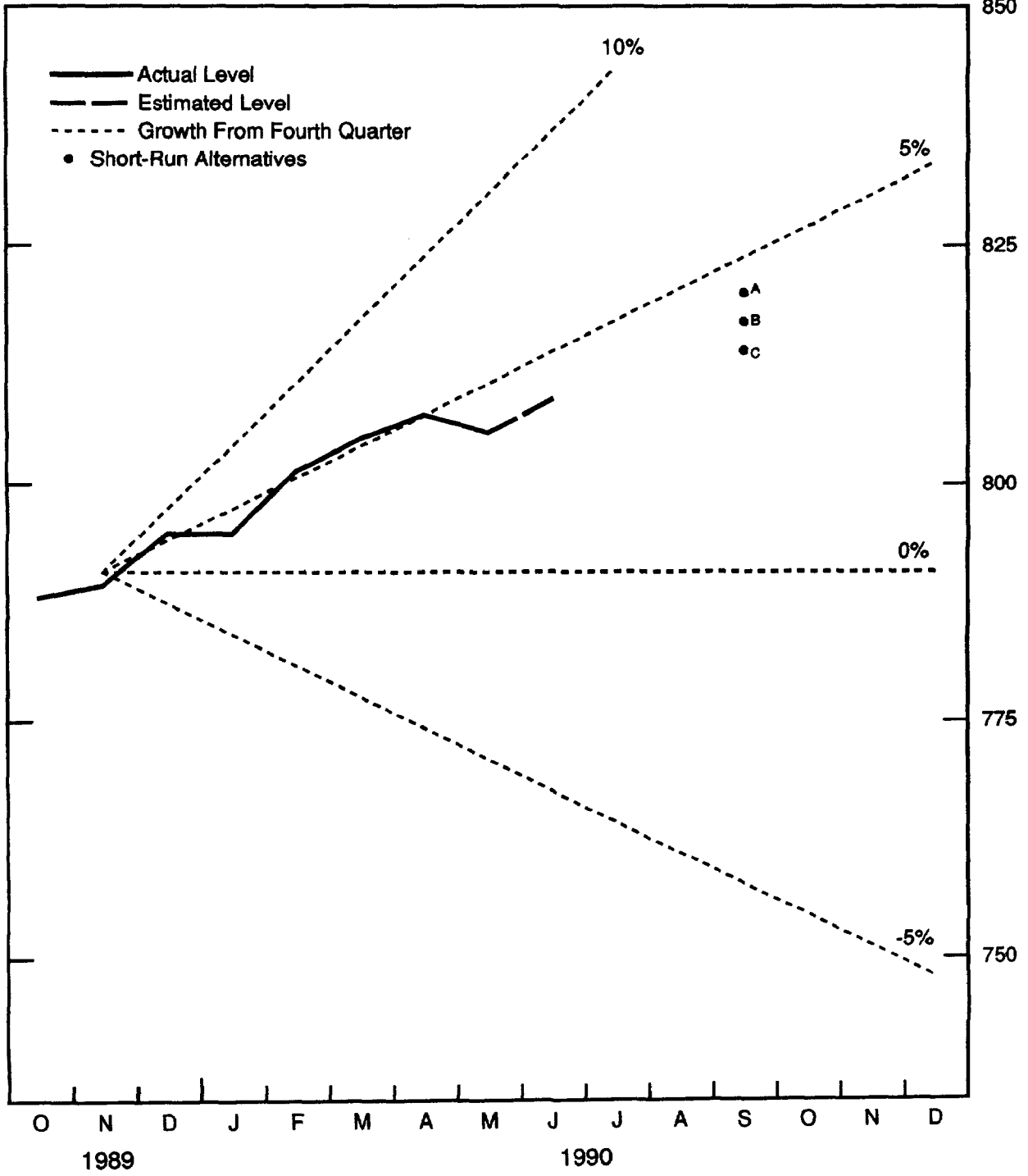
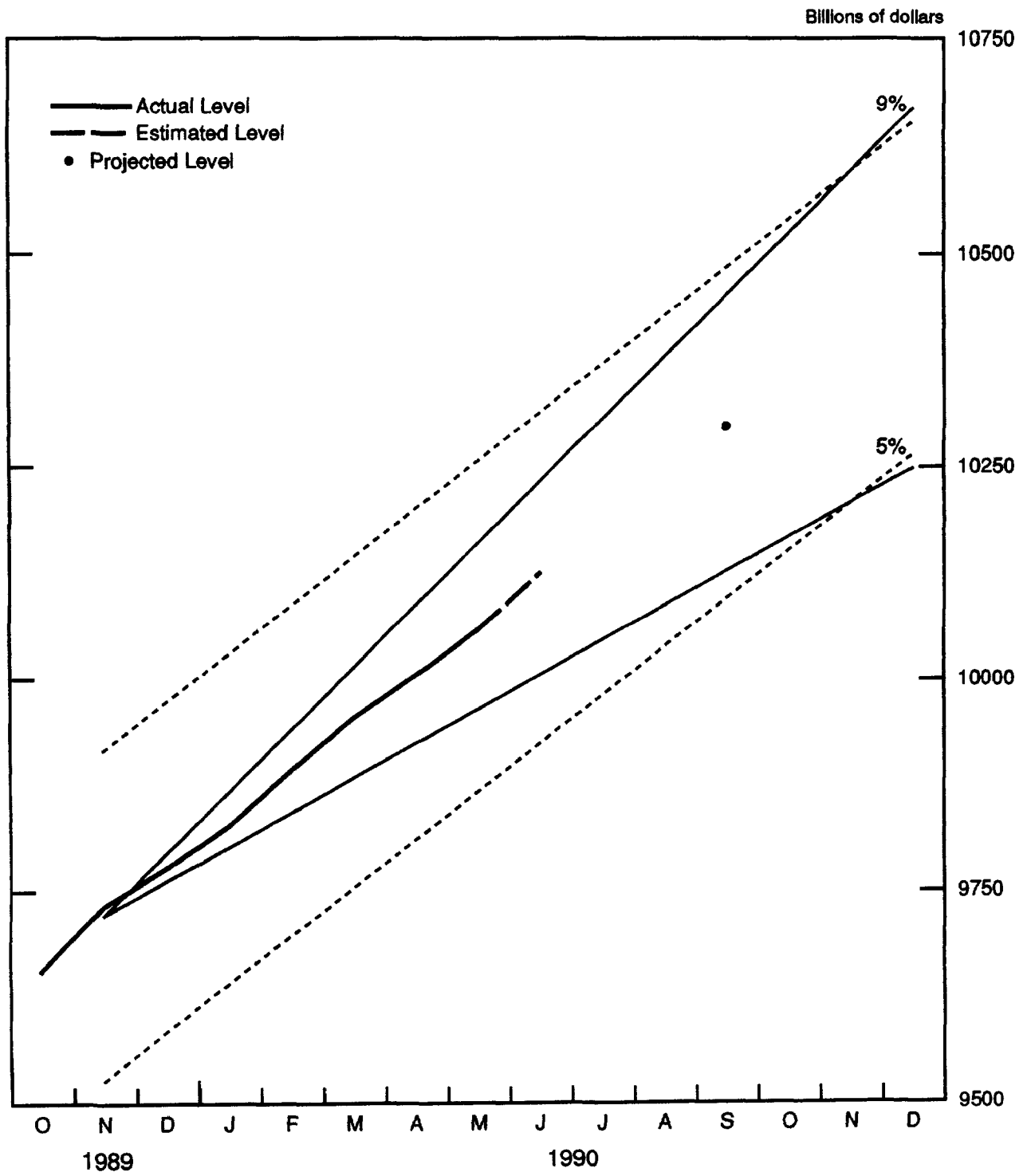


Chart 6  
DEBT



annual rate above its QIV 1989 base.<sup>5</sup> M2 velocity is projected to climb at a 3-3/4 percent annual rate in the third quarter, about the same as in the second quarter. Owing primarily to the continued rapid pace of RTC activity, M3 is projected to grow at only a 1 percent rate from June to September under alternative B, remaining well below its current range.

(24) Total domestic nonfinancial debt is seen as growing from June to September at a 7 percent annual rate, keeping this aggregate around the midpoint of its 5 to 9 percent annual range. However, the debt of nonfederal sectors is projected to grow at around a 6 percent rate over the third quarter, reflecting the impact of the sluggish outlook for spending, some constriction in credit availability, and a more conservative attitude toward borrowing in this environment. Projected federal debt growth from June to September remains at just over 8-1/2 percent, incorporating continued heavy RTC activity.

(25) Under alternative A, the 1/2 percentage point drop in the federal funds rate could be expected to show through nearly in full to other money market rates, as market participants generally do not anticipate such an action in the period just ahead. This alternative also could spark a bond market rally; given the market outlook for sluggish economic activity, investors' inflation concerns probably would not be much intensified by the choice of alternative A. The value of the dollar could be expected to weaken on foreign exchange markets in response to the drop in U.S. interest rates relative to returns abroad.

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5. M1 is projected to grow at a 4 percent pace from June to September. Growth in currency at a 6-1/2 percent rate over this interval, along with a 3 percent growth rate of total reserves, would imply expansion of the monetary base at a 6 percent rate.

(26) Under alternative A, rates of return on retail deposits, especially small time accounts, may be somewhat more responsive than normal to declines in market rates, considering the already ample availability of retail deposits relative to the flat projected level of depository credit. Even so, the public's opportunity costs of holding M2 balances would be expected to decline enough to stimulate growth in M2 to a 4-1/2 percent rate over the June-to-September period. Credit growth at banks would not be expected to pick up much in response to the decline in short-term rates in current circumstances of diminished willingness to extend certain types of credit. Thus, an easing of monetary policy would be less likely to work through increased money and credit supplies at intermediaries, and would work more importantly through the movement of rates in securities and foreign exchange markets. M3 from June to September would be expected to expand at only a 1-1/2 percent rate, placing growth from the fourth-quarter base of its annual range through September at 1-1/4 percent.

(27) The tightening of monetary policy under alternative C would not accord with the prevailing expectations of investors, and interest rates across the maturity spectrum, along with the exchange value of the dollar, would ratchet higher. The rise in longer-term yields could be restrained by concerns about the resilience of economic activity, especially given the likelihood of some further tightening of credit availability, as well as by the implied lessening of future inflationary pressures. The associated widening of opportunity costs, as market interest rates rise relative to deposit and money fund rates, would serve to damp M2 to a 1-1/2 percent rate of growth over the June-to-September period,



dropping that aggregate to around the lower end of its current range. M3 would be anticipated to slow to only a 1/2 percent pace over these months.

Directive Language

(28) Presented below for Committee consideration is draft directive language relating to the ranges for 1990 and for 1991. The first paragraph below is in usual form, including the standard options for adjusting the ranges. In light of the high probability that M3 will run below its current range, an alternative paragraph (29) is presented for consideration in the event that the Committee would want to explain in the directive the reasons for a decision to allow M3 growth to fall below its range or to set a lower range for that aggregate. Draft wording for the operational paragraph, with the usual options and updating, is presented in paragraph (30).

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability, promote growth in output on a sustainable basis, and contribute to an improved pattern of international transactions. In furtherance of these objectives, the Committee REAFFIRMED at THIS ~~its~~ meeting THE RANGES IT HAD ESTABLISHED in February ~~established ranges~~ for growth of M2 and M3 of 3 to 7 percent and 2-1/2 to 6-1/2 percent, respectively, measured from the fourth quarter of 1989 to the fourth quarter of 1990. [IN FURTHERANCE OF THESE OBJECTIVES, THE COMMITTEE AT THIS MEETING RAISED/LOWERED THE RANGES IT HAD ESTABLISHED IN FEBRUARY FOR GROWTH OF M2 AND M3 TO RANGES OF \_\_\_ TO \_\_\_ AND \_\_\_ TO \_\_\_ PERCENT RESPECTIVELY, MEASURED FROM THE FOURTH QUARTER OF 1989 TO

THE FOURTH QUARTER OF 1990.] The monitoring range for growth of total domestic nonfinancial debt was ALSO MAINTAINED set at 5 to 9 percent [WAS (ALSO) RAISED/ LOWERED TO \_\_\_ TO \_\_\_ PERCENT] for the year. FOR 1991 THE COMMITTEE AGREED ON TENTATIVE RANGES FOR MONETARY GROWTH, MEASURED FROM THE FOURTH QUARTER OF 1990 TO THE FOURTH QUARTER OF 1991, OF \_\_\_ TO \_\_\_ PERCENT FOR M2 AND \_\_\_ TO \_\_\_ PERCENT FOR M3. THE COMMITTEE PROVISIONALLY SET THE ASSOCIATED MONITORING RANGE FOR GROWTH OF TOTAL DOMESTIC NONFINANCIAL DEBT AT \_\_\_ TO \_\_\_ 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.

(29) Alternative if Committee decides to reduce the 1990 range for M3 or permit growth below the range:

..... In furtherance of these objectives the Committee reaffirmed at this meeting the range it had established in February for M2 growth of 3 to 7 percent, measured from the fourth quarter of 1989 to the fourth quarter of 1990. The Committee also retained the monitoring range of 5 to 9 percent for the year that it had set for growth of total domestic nonfinancial debt. With regard to M3, the Committee recognized that the ongoing

restructuring of thrift depository institutions had depressed its growth relative to spending and total credit, though to an uncertain extent. Taking account of the outlook for unusually strong M3 velocity, the Committee determined

[that growth of M3 below the range for 1990 was likely to be consistent with its objectives for prices and the economy]

or

[to reduce the 1990 range to \_\_ to \_\_ percent].

For 1991 .... etc. (from top of page 27).

(30) Operational paragraph:

In the implementation of policy for the immediate future, the Committee seeks to DECREASE SOMEWHAT/main-  
tain/INCREASE SOMEWHAT the existing degree of pressure on  
reserve positions. Taking account of progress toward price  
stability, the strength of the business expansion, 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 M2 and M3 over the period from JUNE ~~March~~ through  
SEPTEMBER ~~June~~ at annual rates of about \_\_ AND \_\_ 4 and 3

percent respectively. The Chairman may call for Committee consultation if it appears to the Manager for Domestic Operations that reserve conditions during the period before the next meeting are likely to be associated with a federal funds rate persistently outside a range of \_\_ TO \_\_ 6 to 10 percent.

**ADOPTED LONGER-RUN GROWTH RATE RANGES FOR THE MONETARY AND CREDIT AGGREGATES**  
**Recent 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>Bank Credit or Domestic Non-financial Debt</u> <sup>1</sup>	
QIV 1978 - QIV 1979 <sup>2</sup>	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) <sup>3,4</sup>	6 - 9	(9.8)	6.5 - 9.5	(9.9)	6 - 9	(7.9)
QIV 1980 - QIV 1981	3.5 - 6	(2.3) <sup>3,5</sup>	6 - 9	(9.4)	6.5 - 9.5	(11.4)	6 - 9	(8.8) <sup>6</sup>
QIV 1981 - QIV 1982	2.5 - 5.5	(8.5) <sup>3</sup>	6 - 9	(9.2)	6.5 - 9.5	(10.1)	6 - 9 <sup>7</sup>	(7.1) <sup>6</sup>
QIV 1982 - QIV 1983	5 - 9 <sup>8</sup>	(7.2)	7 - 10 <sup>9</sup>	(8.3)	6.5 - 9.5	(9.7)	8.5 - 11.5	(10.5)
QIV 1983 - QIV 1984	4 - 8	(5.2)	6 - 9	(7.7)	6 - 9	(10.5)	8 - 11	(13.4)
QIV 1984 - QIV 1985	3 - 8 <sup>10</sup>	(12.7)	6 - 9	(8.6)	6 - 9.5	(7.4)	9 - 12	(13.5)
QIV 1985 - QIV 1986	3 - 8	(15.2)	6 - 9	(8.9)	6 - 9	(8.8)	8 - 11	(12.9)
QIV 1986 - QIV 1987	n.s. <sup>11</sup>	(6.2)	5.5 - 8.5	(4.0)	5.5 - 8.5	(5.4)	8 - 11	(9.6)
QIV 1987 - QIV 1988	n.s.	(4.3)	4 - 8	(5.3)	4 - 8	(6.2)	7 - 11	(8.7)
V 1988 - QIV 1989	n.s.	(0.6)	3 - 7	(4.6)	3.5 - 7.5	(3.3)	6.5 - 10.5	(8.1)
IV 1989 - QIV 1990*	n.s.	(3.9)	3 - 7	(3.6)	2.5 - 6.5	(1.1)	5 - 9	(7.0)

n.s.--not specified.

\*Growth rates in parentheses are QIV 1989 to June 1990, except QIV to May for debt.

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)

(Footnotes continued)

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.

## 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	conventional home mortgages			
		3-month	6-month	1-year					3-year	10-year	30-year		municipal Bond Buyer	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	8.48	8.06	10.50	9.09	9.07	9.03	10.32	7.79	10.99	10.67	8.63
Low	8.12	7.54	7.45	7.28	8.11	8.14	7.62	10.00	7.90	7.94	8.00	9.55	7.35	10.13	9.80	8.35
Monthly																
Jun 89	9.53	8.15	7.93	7.84	9.20	9.34	8.96	11.07	8.37	8.28	8.27	9.65	7.35	10.39	10.20	9.03
Jul 89	9.24	7.88	7.61	7.36	8.76	8.95	8.72	10.98	7.83	8.02	8.08	9.54	7.28	10.11	9.88	8.74
Aug 89	8.99	7.90	7.74	7.61	8.64	8.79	8.32	10.50	8.13	8.11	8.12	9.55	7.36	10.38	9.99	8.65
Sep 89	9.02	7.75	7.74	7.65	8.78	8.87	8.25	10.50	8.25	8.19	8.15	9.55	7.52	10.44	10.13	8.71
Oct 89	8.84	7.64	7.62	7.45	8.60	8.66	8.21	10.50	8.02	8.01	8.00	9.39	7.48	10.19	9.95	8.62
Nov 89	8.55	7.69	7.49	7.25	8.39	8.47	8.00	10.50	7.80	7.87	7.90	9.28	7.39	10.06	9.77	8.51
Dec 89	8.45	7.63	7.42	7.21	8.32	8.61	7.90	10.50	7.77	7.84	7.90	9.36	7.31	10.06	9.74	8.39
Jan 90	8.23	7.64	7.55	7.38	8.16	8.20	7.74	10.11	8.13	8.21	8.26	9.63	7.43	10.30	9.90	8.39
Feb 90	8.24	7.74	7.70	7.55	8.22	8.22	7.64	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	7.65	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	7.69	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	7.68	10.00	8.69	8.76	8.73	10.04	7.59	10.68	10.48	8.59
Weekly																
Mar 7 90	8.28	7.84	7.79	7.69	8.27	8.27	7.62	10.00	8.55	8.59	8.60	10.00	7.50	10.67	10.29	8.50
Mar 14 90	8.27	7.96	7.87	7.82	8.38	8.33	7.64	10.00	8.69	8.65	8.63	9.92	7.55	10.63	10.34	8.55
Mar 21 90	8.27	7.94	7.89	7.78	8.40	8.35	7.66	10.00	8.66	8.59	8.53	9.82	7.54	10.55	10.26	8.56
Mar 28 90	8.26	7.88	7.84	7.73	8.36	8.35	7.68	10.00	8.60	8.52	8.48	9.98	7.57	10.64	10.22	8.56
Apr 4 90	8.33	7.80	7.80	7.74	8.37	8.34	7.67	10.00	8.65	8.62	8.59	9.93	7.54	10.55	10.26	8.56
Apr 11 90	8.25	7.78	7.77	7.69	8.36	8.31	7.69	10.00	8.60	8.59	8.55	9.96	7.53	10.67	10.25	8.50
Apr 18 90	8.27	7.77	7.80	7.76	8.34	8.29	7.69	10.00	8.72	8.74	8.71	10.25	7.64	10.78	10.41	8.56
Apr 25 90	8.24	7.75	7.88	7.89	8.48	8.33	7.69	10.00	8.93	8.96	8.94	10.32	7.77	10.99	10.56	8.56
May 2 90	8.12	7.84	8.00	7.97	8.58	8.37	7.66	10.00	9.09	9.07	9.03	10.16	7.79	10.80	10.67	8.62
May 9 90	8.20	7.80	7.84	7.84	8.45	8.30	7.66	10.00	8.83	8.89	8.88	10.02	7.66	10.63	10.54	8.63
May 16 90	8.16	7.66	7.67	7.66	8.29	8.22	7.70	10.00	8.60	8.68	8.66	10.02	7.51	10.68	10.37	8.56
May 23 90	8.22	7.71	7.72	7.67	8.30	8.20	7.70	10.00	8.62	8.69	8.65	9.98	7.49	10.60	10.33	8.53
May 30 90	8.19	7.74	7.72	7.64	8.27	8.18	7.68	10.00	8.56	8.65	8.63	9.87	7.50	10.36	10.29	8.55
Jun 6 90	8.26	7.71	7.63	7.54	8.22	8.16	7.66	10.00	8.41	8.48	8.47	9.78	7.49	10.34	10.10	8.50
Jun 13 90	8.30	7.71	7.62	7.51	8.23	8.19	7.65	10.00	8.38	8.46	8.43	9.83	7.46	10.37	10.12	8.50
Jun 20 90	8.28	7.70	7.63	7.53	8.22	8.21	7.66	10.00	8.40	8.48	8.45	9.89	7.43	10.43	10.16	8.50
Jun 27 90	8.28	7.78	7.67	7.59	8.26	8.24	7.66	10.00	8.45	8.54	8.51	..	..	..	..	..
Daily																
Jun 22 90	8.24	7.78	7.64	7.56	8.25	8.25	..	10.00	8.43	8.51	8.49	..	..	..	..	..
Jun 27 90	8.39	7.78	7.68	7.58	8.28	8.25	..	10.00	8.43	8.52	8.49	..	..	..	..	..
Jun 28 90	8.36 <sub>p</sub>	7.74	7.62	7.52	8.27	8.26	..	10.00	8.37 <sub>p</sub>	8.46 <sub>p</sub>	8.44 <sub>p</sub>	..	..	..	..	..

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

JUN. 29, 1990

Period	Money stock measures and liquid assets					Bank credit	Domestic nonfinancial debt <sup>1</sup>			
	M1	M2	nontransactions components		M3	L	total loans and investments	U.S. government <sup>1</sup>	other <sup>1</sup>	total <sup>1</sup>
			in M2	in M3 only						
	1	2	3	4	5	6	7	8	9	10
<b>ANN. GROWTH RATES (%) :</b>										
<b>ANNUALLY (Q4 TO Q4) :</b>										
1987	6.3	4.3	3.6	12.0	5.8	5.5	7.9	9.0	10.2	9.9
1988	4.3	5.2	5.5	10.6	6.3	7.1	7.7	8.0	9.4	9.1
1989	0.6	4.5	5.9	-1.5	3.3	4.4	7.2	7.4	8.3	8.1
<b>QUARTERLY AVERAGE</b>										
1989-3rd QTR.	1.8	6.9	8.7	-6.9	3.9	4.2	7.0	4.6	8.1	7.3
1989-4th QTR.	5.1	7.0	7.7	-17.1	1.8	2.8	7.7	9.5	7.8	8.2
1990-1st QTR.	4.8	6.0	6.4	-10.6	2.6	2.8	5.0	8.1	6.7	7.0
1990-2nd QTR. pe	3½	2½	2	-7½	½					
<b>MONTHLY</b>										
1989-JUNE	-3.9	6.3	9.8	4.1	5.8	5.6	6.3	4.3	8.2	7.3
JULY	8.4	9.8	10.3	-4.2	6.7	6.3	7.9	-0.1	8.4	6.5
AUG.	2.0	7.6	9.5	-20.3	1.4	3.3	7.1	9.1	7.7	8.1
SEP.	3.8	6.3	7.0	-23.0	0.0	1.3	5.5	10.9	5.9	7.1
OCT.	8.0	6.9	6.6	-19.8	1.3	2.1	11.4	9.5	8.5	8.7
NOV.	2.0	7.2	9.0	-9.5	3.7	3.8	7.4	11.0	9.2	9.6
DEC.	8.2	7.6	7.4	-10.7	3.9	5.4	1.8	3.6	6.1	5.6
1990-JAN.	0.0	3.1	4.1	-7.6	0.9	0.4	2.7	5.4	6.4	6.1
FEB.	10.0	8.6	8.1	-13.2	4.2	2.4	8.4	11.3	7.0	8.0
MAR.	5.1	5.1	5.1	-16.7	0.8	4.5	9.2	14.9	5.2	7.5
APR.	3.9	1.9	1.4	-3.0	1.0	-0.1	5.1	8.5	5.3	6.0
MAY	-2.8	-2.9	-3.0	-1.2	-2.6		4.1	7.8	5.9	6.4
JUNE pe	5	2	1	-8	0					
<b>LEVELS (\$BILLIONS) :</b>										
<b>MONTHLY</b>										
1990-JAN.	794.8	3229.3	2434.5	815.5	4044.8	4869.6	2585.8	2275.9	7551.7	9827.6
FEB.	801.4	3252.4	2451.0	806.5	4058.9	4879.5	2603.8	2297.3	7595.5	9892.8
MAR.	804.8	3266.2	2461.4	795.3	4061.6	4897.7	2623.8	2325.9	7628.3	9954.3
APR.	807.4	3271.5	2464.2	793.3	4064.9	4897.2	2635.0	2342.3	7662.0	10004.3
MAY	805.5	3263.6	2458.1	792.5	4056.1		2644.1	2357.5	7699.8	10057.3
<b>WEEKLY</b>										
1990-MAY										
7	805.8	3269.7	2463.9	793.0	4062.7					
14	803.2	3265.1	2461.9	793.9	4059.0					
21	807.1	3264.7	2457.6	793.3	4058.0					
28	803.9	3256.9	2453.0	790.0	4046.8					
JUNE										
4	808.2	3261.0	2452.8	792.3	4053.3					
11 p	807.5	3265.8	2458.3	793.4	4059.2					
18 p	807.6	3269.4	2461.9	786.5	4055.9					

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

## Components of Money Stock and Related Measures

seasonally adjusted unless otherwise noted

JUN. 29, 1990

Period	Currency	Demand deposits	Other checkable deposits	Overnight RPs and Eurodollars NSA <sup>1</sup>	MMDA's	Savings deposits	Small denomination time deposits <sup>2</sup>	Money market mutual funds		Large denomination time deposits <sup>4</sup>	Term RPs NSA <sup>1</sup>	Term Eurodollars NSA <sup>1</sup>	Savings bonds	Short-term Treasury securities	Commercial paper <sup>3</sup>	Bankers acceptances
								general purpose and broker/dealer <sup>3</sup>	Institutions only							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>LEVELS (\$BILLIONS) :</b>																
<b>ANNUALLY (4TH QTR.)</b>																
1987	195.0	291.5	260.5	87.6	529.3	416.2	903.6	220.5	87.2	482.3	107.4	92.4	99.8	261.9	258.4	44.5
1988	210.7	287.6	280.4	83.3	504.9	428.2	1021.6	237.5	86.7	538.0	123.2	102.7	108.8	267.0	326.2	40.7
1989	220.8	279.5	283.1	75.6	479.9	407.7	1138.9	308.0	101.5	560.7	103.5	80.1	116.8	312.1	349.7	40.6
<b>MONTHLY</b>																
1989-MAY	216.6	279.6	272.8	77.8	463.1	405.4	1103.0	261.2	92.1	573.1	127.5	97.2	112.8	288.1	348.8	41.2
JUNE	217.2	276.3	273.0	79.6	460.9	403.4	1114.0	268.3	96.3	574.9	128.4	93.4	113.6	289.6	349.4	41.2
JULY	217.8	279.6	274.5	81.0	463.9	403.3	1122.4	277.7	99.0	574.7	123.8	91.8	114.3	290.9	349.5	41.9
AUG.	218.6	278.5	276.0	78.3	468.2	404.0	1130.0	287.8	101.4	570.5	116.9	89.6	115.0	293.0	354.3	42.6
SEP.	219.3	278.1	278.4	74.9	471.9	405.5	1132.6	295.9	101.6	565.6	112.9	85.3	115.7	303.0	350.3	41.0
OCT.	220.0	280.0	280.8	75.3	475.3	406.1	1135.9	302.7	101.1	562.7	108.3	80.0	116.2	308.2	350.0	40.0
NOV.	220.4	278.8	282.8	74.8	480.8	407.9	1138.5	309.0	101.1	561.0	107.2	79.2	116.8	308.6	351.3	40.5
DEC.	221.9	279.7	285.7	76.8	483.7	409.0	1142.3	312.4	102.3	558.3	94.9	81.1	117.5	319.5	347.9	41.2
1990-JAN.	224.6	277.3	285.4	80.7	485.0	410.2	1142.5	318.1	103.2	554.2	91.5	74.5	117.7	323.0	343.3	40.7
FEB.	226.6	280.2	287.0	81.3	489.4	413.6	1141.2	324.5	103.7	549.5	94.9	68.8	118.2	319.4	344.7	38.3
MAR.	228.4	279.3	289.5	80.7	494.9	414.6	1143.8	325.0	105.4	543.6	93.1	66.6	119.1	337.3	342.7	37.0
APR.	230.1	277.8	291.8	77.8	498.9	415.8	1144.1	324.8	106.8	537.6	92.7	66.1	119.9	329.3	347.2	35.9
MAY	231.6	274.6	291.5	79.8	500.2	415.1	1145.5	319.4	107.3	534.6	93.1	69.0				

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

July 2, 1990

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

**STRICTLY CONFIDENTIAL (FR)**  
**CLASS II-FOMC**

Period	Treasury bills			Treasury coupons						Federal agencies redemptions (-)	Net change outright holdings total	Net RPs <sup>5</sup>
	Net purchases <sup>2</sup>	Redemptions (-)	Net change	Net purchases <sup>3</sup>				Redemptions (-)	Net change			
				within 1-year	1-5	5-10	over 10					
1984	11,479	7,700	3,779	826	1,938	236	441	--	3,440	256	6,964	1,450
1985	18,096	3,500	14,596	1,349	2,185	358	293	--	4,185	162	18,619	3,001
1986	20,099	1,000	19,099	190	893	236	158	--	1,476	398	20,178	10,033
1987	12,933	9,029	3,905	3,358	9,779	2,441	1,858	70	17,366	276	20,994	-11,033
1988	7,635	2,200	5,435	2,177	4,686	1,404	1,398	--	9,665	587	14,513	1,557
1989	1,466	12,730	-11,264	327	946	258	284	500	1,315	442	-10,391	-1,683
1988--Q1	319	2,200	-1,881	--	-800	-175	--	--	-975	155	-3,011	-3,514
Q2	423	--	423	1,092	3,661	1,017	966	--	6,737	130	7,030	5,220
Q3	1,795	--	1,795	--	--	--	--	--	--	77	1,717	1,393
Q4	5,098	--	5,098	1,084	1,824	562	432	--	3,903	224	8,776	-1,541
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	9,263	4,930	4,333	155	-24	--	--	500	-369	30	3,934	3,877
1990--Q1	-3,799	1,400	-5,199	100	100	--	--	--	200	--	-4,999	-4,061
1989--October	-1,414	1,400	-2,814	--	-24	--	--	500	-524	30	-3,368	463
November	-8,794	3,530	5,264	155	--	--	--	--	155	--	5,419	-453
December	-1,883	--	1,883	--	--	--	--	--	--	--	-1,883	3,867
1990--January	-1,065	1,000	-2,065	--	--	--	--	--	--	--	-2,065	-8,435
February	-3,277	400	-3,677	--	--	--	--	--	--	--	3,677	4,417
March	543	0	543	100	100	--	--	--	200	--	742	-43
April	5,796	0	5,796	--	100	--	--	--	100	78	5,818	-1,260
May	3,365	--	3,365	168	--	--	--	--	168	--	3,533	-378
April 4	200	--	200	--	--	--	--	--	--	--	200	-29
11	4,833	--	4,833	--	100	--	--	--	100	--	4,933	-2,362
18	290	--	290	--	--	--	--	--	--	--	290	7,661
25	181	--	181	--	--	--	--	--	--	78	103	-7,458
May 2	347	--	347	--	--	--	--	--	--	--	347	-84
9	--	--	--	--	--	--	--	--	--	--	--	-97
16	--	--	--	--	--	--	--	--	--	--	--	4,853
23	--	--	--	--	--	--	--	--	--	--	--	-4,871
30	--	--	--	--	--	--	--	--	--	--	--	371
June 6	3,593	--	3,593	50	--	--	--	--	50	--	278	2,234
13	11	--	11	--	--	--	--	--	--	--	11	-408
20	1,080	--	1,080	--	--	--	--	--	--	--	1,080	-1,921
27	413	--	413	--	--	--	--	--	--	--	413	1,464
Memo: LEVEL (bil.\$) <sup>6</sup>												
June 27	--	--	112.3	27.0	57.5	11.6	26.4	--	122.5	--	241.3	-3.9

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 coupon issues.

4. Reflects net change and redemptions (-) of Treasury and agency securities.  
 5. Includes change in RPs (+), matched sale-purchase transactions (-), and matched purchase sale transactions (+).  
 6. The levels of agency issues were as follows:

	within 1-year	1-5	5-10	over 10	total
June 27	2.3	2.8	1.1	0.2	6.4