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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

September 28, 1990

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) Open market operations since the last Committee meeting have continued to be directed toward maintaining unchanged pressures on reserve conditions, with the expectation that federal funds would trade around 8 percent. In the three maintenance periods completed since then, federal funds traded generally in that area, although the rate spiked well above that level late on the last day of each of these periods. On two of those days, the Desk refrained from meeting projected reserve needs because federal funds were trading below 8 percent and markets were looking for signs of an easing of policy; the third instance arose from an unexpected shortfall in reserves. Largely reflecting the resulting heavy borrowing on those days, adjustment plus seasonal borrowing over the intermeeting period has averaged appreciably above the path of \$500 million.<sup>1</sup> So far in the current maintenance period, federal funds generally have traded somewhat above 8 percent. Pressures apparently arose from positioning in advance of the quarter-end statement date interacting with emerging cautious reserve management policies by money center banks worried about potential funding difficulties in the wake of heightened market concerns about bank soundness.

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1. Actual borrowing in the three maintenance periods that ended in the intermeeting period was: \$1,086 million (period ending August 22); \$631 million (period ending September 5); and \$700 million (period ending September 19). Borrowing is averaging \$508 million thus far in the current maintenance period.

(2) Concerns about the condition of banks intensified in recent days after reports of large losses and dividend reductions at several institutions and continued indications of a weak outlook for real estate markets and the economy more generally. Shifting perceptions of risk were reflected in a sharp increase over the intermeeting period in spreads between Treasury securities and private instruments in short-term markets, with Treasury bill yields falling as many as 40 basis points while returns on commercial paper and CDs rose about 1/8 percentage point. In addition, spreads on the longer-term debt of money center banks widened considerably, and share prices of these banks fell about 18 percent on average. Treasury bond yields moved higher on balance through most of the intermeeting period, tracking oil prices, whose increase was seen as leading to higher inflation. In the last few days, however, Treasury bond yields have retraced that rise amid optimism about the budget negotiations and concerns about financial fragility. Investment-grade corporate bonds were little changed on balance over the period, but with higher oil prices also presaging a sluggish real economy, spreads on below-investment-grade bonds widened significantly and broad stock price indexes moved down more than 5 percent.

(3) The dollar has shown little net change on a weighted average basis, remaining near the lower levels reached by the last FOMC meeting. The dollar has declined by 5-1/2 percent against the yen since that meeting as Japanese short- and long-term rates rose by 35 and 50 basis points, respectively, in response to a tightening of monetary policy and to indications of continued robust economic growth. However, the dollar

appreciated against sterling, which eased off when it became clear that, contrary to expectations, the United Kingdom was not going to enter the exchange rate mechanism of the EMS in September, and against the Canadian dollar, where an easing in monetary policy brought short-term rates down by one-half percentage point. On average, short-term interest rates abroad were about unchanged, while long-term rates rose by 20 basis points.

(4) M2 accelerated in August to a 6-1/2 percent rate and is estimated to have about maintained that pace in September. As a result, M2 expansion in the June-to-September period has been about 1 percentage point above the 4 percent rate expected by the Committee, though remaining a little below the midpoint of its annual range. The recent strength of M2 seems attributable largely to the uncertainty engendered by the invasion of Kuwait and the consequent spike in oil prices. M2 received its greatest boost from a surge in money market mutual funds, as investors apparently switched out of the stock and bond markets. In addition, currency growth surged in August and remained at a high level in September as demands from the Middle East were added to already strong flows to South America.<sup>2</sup> By contrast, the retail deposit component of M2 has strengthened relatively little in recent months, increasing at only a 2-1/2 percent rate over August and September.

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<sup>2</sup> With demand deposits also strong, M1 expanded in August and September at rates of 10-1/2 and 8-3/4 percent, respectively. The monetary base rose at double-digit rates in both months.

(5) The strength of M2 showed through to M3. There was a pause through early September in RTC activity and its associated damping effects on M3; this aggregate was bolstered as well by considerable inflows to M3-type money funds. The pickup in M3 growth was restrained, however, by large increases in government balances at banks. Some of these deposits were used to reduce managed liabilities, although a large share of them seemed to have funded lending to government securities dealers. M3 growth over August and September averaged 3-1/2 percent, about in line with the Committee's expectations, bringing expansion thus far this year to around 2 percent.

(6) Growth of private credit likely has remained subdued in the last couple of months, reflecting both weak demand and adverse supply conditions. In bond markets, issuance by businesses and states and municipalities has been discouraged by rising rates; markets have been particularly unreceptive to below-investment grade business borrowers, and quality spreads in tax-exempt markets also have widened. Postponed bond issuance by better-rated businesses has been reflected in strength in commercial paper, but non-merger-related business borrowing at banks continues to be very sluggish. Little credit seems to be available for commercial real estate, and slowing loan growth in this area has contributed to a moderation in total real estate lending. On the other hand, consumer loans adjusted for securitizations have picked up, expanding at an 8 percent pace in recent months. Federal government borrowing accelerated sharply in the third quarter, swollen by needs to finance expected RTC

expenditures, helping to maintain growth in total nonfinancial debt around the 7 percent middle of its annual range.

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

	July	Aug.	Sept. pe	QIV' 89 to Sept. pe
<u>Money and credit aggregates</u>				
M1	-0.3	10.4	8.8	4.8
M2	1.7	6.6	6.4	4.4
M3	0.9	4.6	2.5	1.9
Domestic nonfinancial debt	7.5	9.1	n.a.	6.9 <sup>1</sup>
Bank credit	6.9	10.3	3.9	6.3
<u>Reserves measures<sup>2</sup></u>				
Nonborrowed reserves <sup>3</sup>	-7.1	2.2	7.2	-0.2
Total reserves	-8.2	8.7	3.4	0.3
Monetary base	6.4	13.2	14.9	9.0
Memo: (Millions of dollars)				
Adjustment plus seasonal borrowing	477	799	615	--
Excess reserves	862	872	864	--

pe - Preliminary estimate.

n.a. - Not available.

1. Through August.

2. Reserves data for September incorporate assumptions of \$500 million of adjustment plus seasonal borrowing and \$950 million of excess reserves for the maintenance period ending October 3.

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.

### Policy Alternatives

(7) Three policy alternatives are given below for consideration by the Committee. Under alternative B, federal funds would continue to trade around 8 percent. Under alternatives A and C, federal funds trading would center around 7-1/2 and 8-1/2 percent, respectively. In view of the decline in the demand for seasonal credit that typically occurs during the fall, borrowing under alternative B would initially be specified at \$450 million, a reduction of \$50 million from the current level, and the assumption probably would need to be lowered another \$50 to \$100 million over the intermeeting period. Under alternatives A and C, the initial specification for borrowing would be \$400 million and \$500 million, respectively. Desk operations over the intermeeting period may need to take account of continued cautious reserve management by banks concerned about potential funding difficulties; those banks may want to carry a larger cushion of excess reserves and would be especially eager to avoid being seen at the discount window.

(8) Financial market conditions over the intermeeting period will depend not only on the course of monetary policy and the market response to the usual array of macroeconomic and price data, but also on developments in three important areas of particular uncertainty. The first is the situation in the Persian Gulf and its implications for oil prices. Other things equal, bond yields and oil prices probably will continue to tend to move together, as the effects on inflation prospects and perhaps uncertainty dominate the impact of opposite changes in real rates associated with economic activity. Major changes in the outlook in

this area also may affect money growth and risk premiums by feeding back on demands for liquidity and safety.

(9) Reports of progress in budget negotiations have already contributed to a bond market rally in recent days, and further price gains are likely to follow an agreement that implied a significant degree of fiscal restraint over several years. The reaction of the bond market may reflect expectations about the System's response as well, for market participants would expect a monetary policy easing to be forthcoming after such an accord. Thus, other short-term interest rates also are likely to drop, even before any decline in the federal funds rate. On the other hand, if the budget stalemate continued with a resulting sequester--or possibly a deferral of the Gramm-Rudman-Hollings process--uncertainty about the ultimate direction of fiscal policy would be prolonged, contributing to volatility in financial markets. The potential reversion of the debt ceiling to a lower level on October 3 is a further complicating factor, which would disrupt Treasury financing and contribute to market volatility.

(10) Finally, there is some risk that concerns about the health of banking and other financial institutions could intensify. The rapidity and size of the drop in bank stock and debt prices suggest that considerable negative news about these institutions already has been discounted, and some of the market movement of recent days may reflect institutional investors' reluctance to hold bank paper over the quarter-end statement date. Still, markets remain skittish, and even in the absence of new information confidence could erode further. With funding sources even

more expensive and additional pressures on capital constraining asset growth, affected institutions would likely curtail credit further and raise the price and nonprice terms on loans. Monetary growth patterns could be affected as well. Should banks encounter increasing resistance in raising uninsured funds, they could take steps to secure more stable funding by bidding more aggressively for retail deposits, especially small time deposits. These actions would lead to higher growth of M2 for a time, but M3 growth would be depressed somewhat further as banks cut back on asset expansion.

(11) It appears that the expectation of an immediate easing of monetary policy is no longer so prevalent in the markets, although some relaxation still seems to be anticipated over coming months, partly reflecting an expected budget accord. The market response to unchanged policy under alternative B will depend crucially on budget developments in coming days. Should an inadequate agreement appear to be in train, rates could reverse some of the declines of recent days, but there would be no effect from holding monetary policy unchanged. As noted above, however, a significant budget agreement would extend the recent market rally and engender expectations of near-term policy action. In this case, maintaining unchanged money market conditions for an extended period would disappoint these expectations and cause rates to back up.

(12) Barring an immediate, credible agreement that had already reduced interest rates, the decline in the federal funds rate under alternative A would be expected to show through in other money market interest rates. Private rates might drop a little more than those on Treasury

bills if the lower rates were seen as lessening financial stresses. With market participants generally viewing the economy as weak, some decline in bond yields may accompany this policy action. In the absence of a credible budget agreement or a lessening of tensions in the Middle East, any bond market rally would be quite limited, however, if the easing raised questions about the System's commitment to containing inflation. The dollar could come under renewed downward pressure in response to the reduction in U.S. interest rates.

(13) The tightening of monetary policy under alternative C would be seen under current circumstances as signalling an aggressive stance against the inflationary consequences of the oil shock. Such a tightening is not anticipated by market participants. Given concerns about financial fragility, yields on private obligations could rise significantly, while the increase in bill rates could be limited by greater demands for safe assets. Perceptions that the central bank would not permit inflation to rise permanently as a result of the oil shock would hold down any increase in yields on longer-term instruments.

(14) Growth in the monetary aggregates expected under the three alternatives is presented in the table below, along with implied growth on a fourth-quarter to fourth-quarter basis. (Detailed data are presented on the table and charts on the following pages.) Under all three alternatives, growth of money over the final three months of the year is expected to be somewhat slower than in August and September. With regard to M2, both the increased demand for U.S. currency in the Middle East that developed in the wake of the invasion of Kuwait and the flight from capital

markets into money fund shares are assumed to diminish over the remainder of the year. In addition, the recent pickup of RTC activity is expected to restrain deposit growth in the near term, as occurred in similar circumstances at the end of the second quarter.

	<u>Alt. A</u>	<u>Alt. B</u>	<u>Alt. C</u>
Growth from Sept. to Dec.			
M2	5-1/2	4	2-1/2
M3	2-1/2	2	1-1/2
M1	8	6	4
Growth from Q4'89 to Q4'90			
M2	4-1/2	4-1/2	4
M3	2	2	2
M1	5-1/4	5	4-3/4
Associated federal funds rate ranges	5-1/2 to 9-1/2	6 to 10	6-1/2 to 10-1/2

(15) Under alternative B, with some reversal of recent declines in bill rates, opportunity costs are not expected to be a significant influence on M2 growth over the next few months. Still, velocity would decline at a 2 percent annual rate since the 4 percent growth of M2 from September to December under this alternative would imply quarterly average growth of 4-3/4 percent. Money demand is not expected to react much over coming months to the sharp decline in nominal GNP growth in the fourth quarter; such a decline would not be seen as indicative of the behavior of permanent income, and nominal consumption spending is expected to remain strong. Under alternative A, the drop in opportunity costs would boost

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 July	3283.7	3283.7	3283.7	4072.3	4072.3	4072.3	809.2	809.2	809.2
August	3301.8	3301.8	3301.8	4087.8	4087.8	4087.8	816.2	816.2	816.2
September	3319.3	3319.3	3319.3	4096.2	4096.2	4096.2	822.2	822.2	822.2
October	3332.5	3330.3	3328.1	4104.4	4103.4	4102.4	827.7	827.0	826.3
November	3348.1	3341.4	3334.7	4113.3	4110.6	4107.9	832.9	830.8	828.7
December	3365.0	3352.5	3340.0	4122.9	4117.8	4112.7	838.5	834.4	830.3
Monthly Growth Rates									
1990 July	1.7	1.7	1.7	0.9	0.9	0.9	-0.3	-0.3	-0.3
August	6.6	6.6	6.6	4.6	4.6	4.6	10.4	10.4	10.4
September	6.4	6.4	6.4	2.5	2.5	2.5	8.8	8.8	8.8
October	4.8	4.0	3.2	2.4	2.1	1.8	8.0	7.0	6.0
November	5.6	4.0	2.4	2.6	2.1	1.6	7.5	5.5	3.5
December	6.1	4.0	1.9	2.8	2.1	1.4	8.1	5.2	2.3
Quarterly Ave. Growth Rates									
1989 Q4	7.1	7.1	7.1	2.0	2.0	2.0	5.1	5.1	5.1
1990 Q1	6.4	6.4	6.4	3.0	3.0	3.0	4.8	4.8	4.8
Q2	2.9	2.9	2.9	0.8	0.8	0.8	3.5	3.5	3.5
Q3	3.1	3.1	3.1	1.6	1.6	1.6	4.2	4.2	4.2
Q4	5.7	4.8	4.0	2.8	2.5	2.2	8.4	7.3	6.1
June 90 to Sept 90	4.9	4.9	4.9	2.7	2.7	2.7	6.3	6.3	6.3
Sept 90 to Dec. 90	5.5	4.0	2.5	2.6	2.1	1.6	7.9	5.9	3.9
Q4 89 to Q2 90	4.7	4.7	4.7	1.9	1.9	1.9	4.2	4.2	4.2
Q4 89 to Q3 90	4.2	4.2	4.2	1.8	1.8	1.8	4.2	4.2	4.2
Q4 89 to Q4 90	4.6	4.4	4.1	2.0	2.0	1.9	5.3	5.1	4.8
Q4 89 to Aug. 90	4.2	4.2	4.2	1.9	1.9	1.9	4.3	4.3	4.3
Q4 89 to Sept 90	4.4	4.4	4.4	1.9	1.9	1.9	4.8	4.8	4.8
Q4 89 to Dec. 90	4.7	4.4	4.0	2.1	2.0	1.9	5.6	5.1	4.6

1990 Target Ranges:

3.0 to 7.0

1.0 to 5.0

Chart 1

# ACTUAL AND TARGETED M2

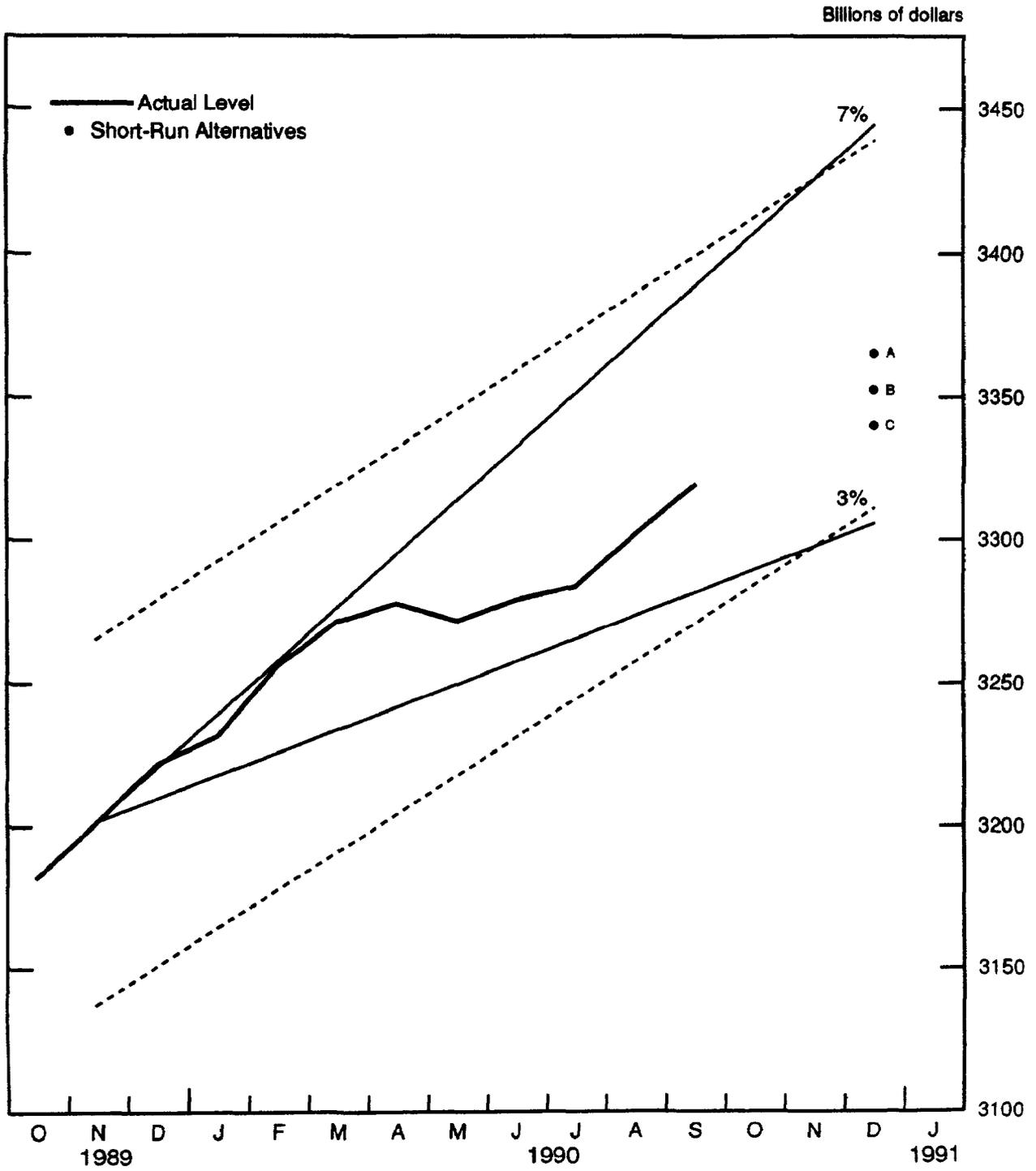


Chart 2

# ACTUAL AND TARGETED M3

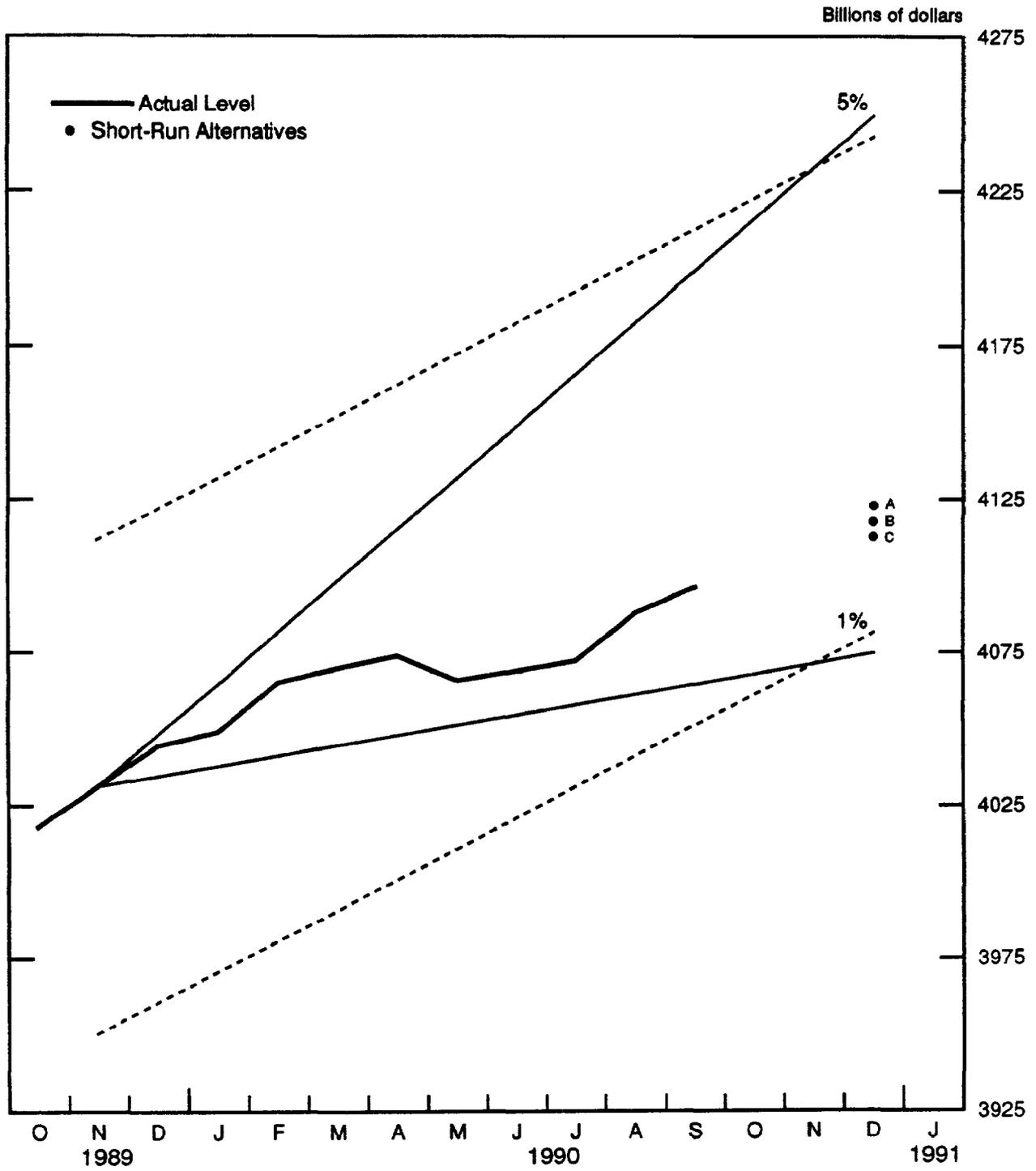


Chart 3

# M1

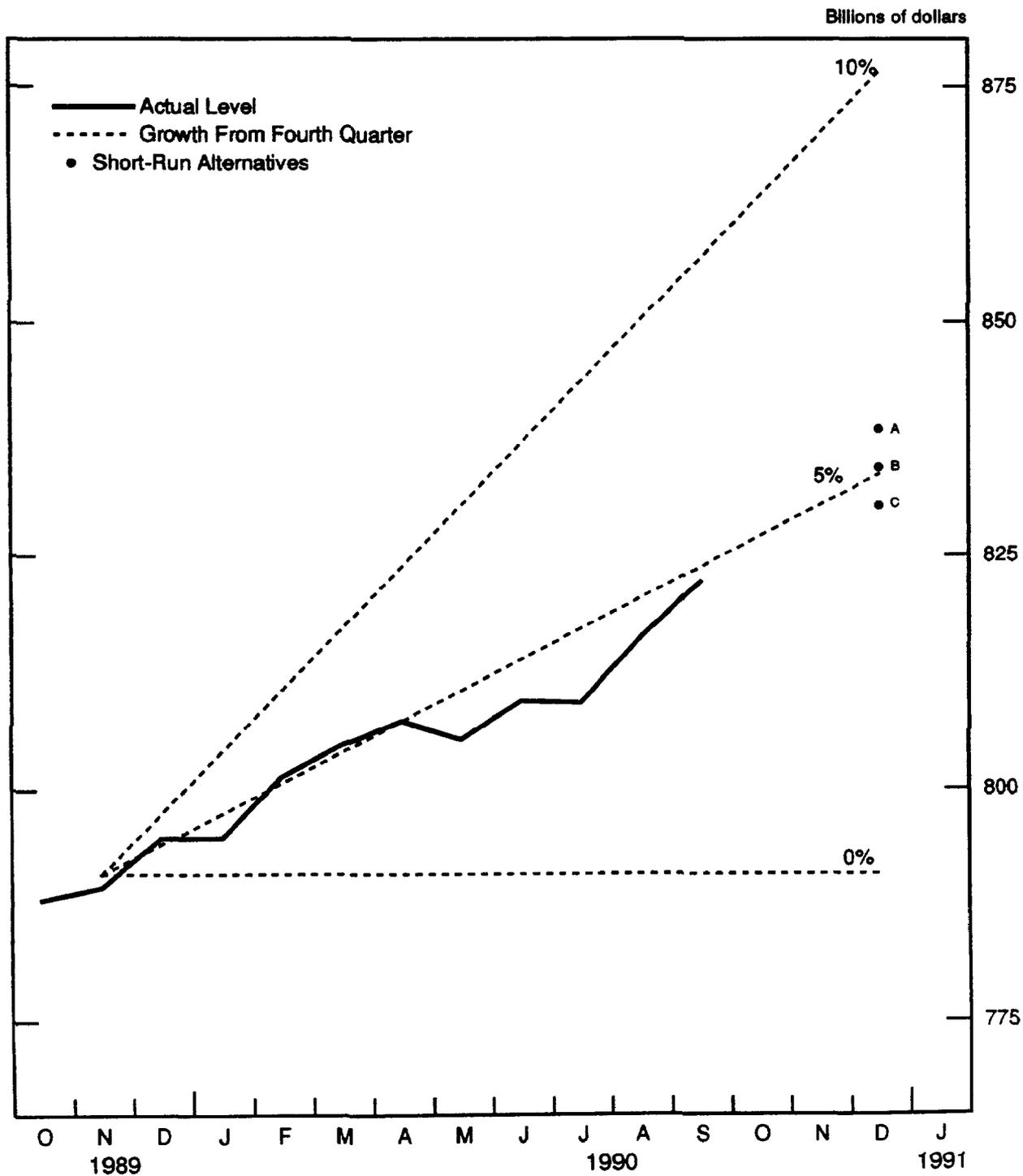
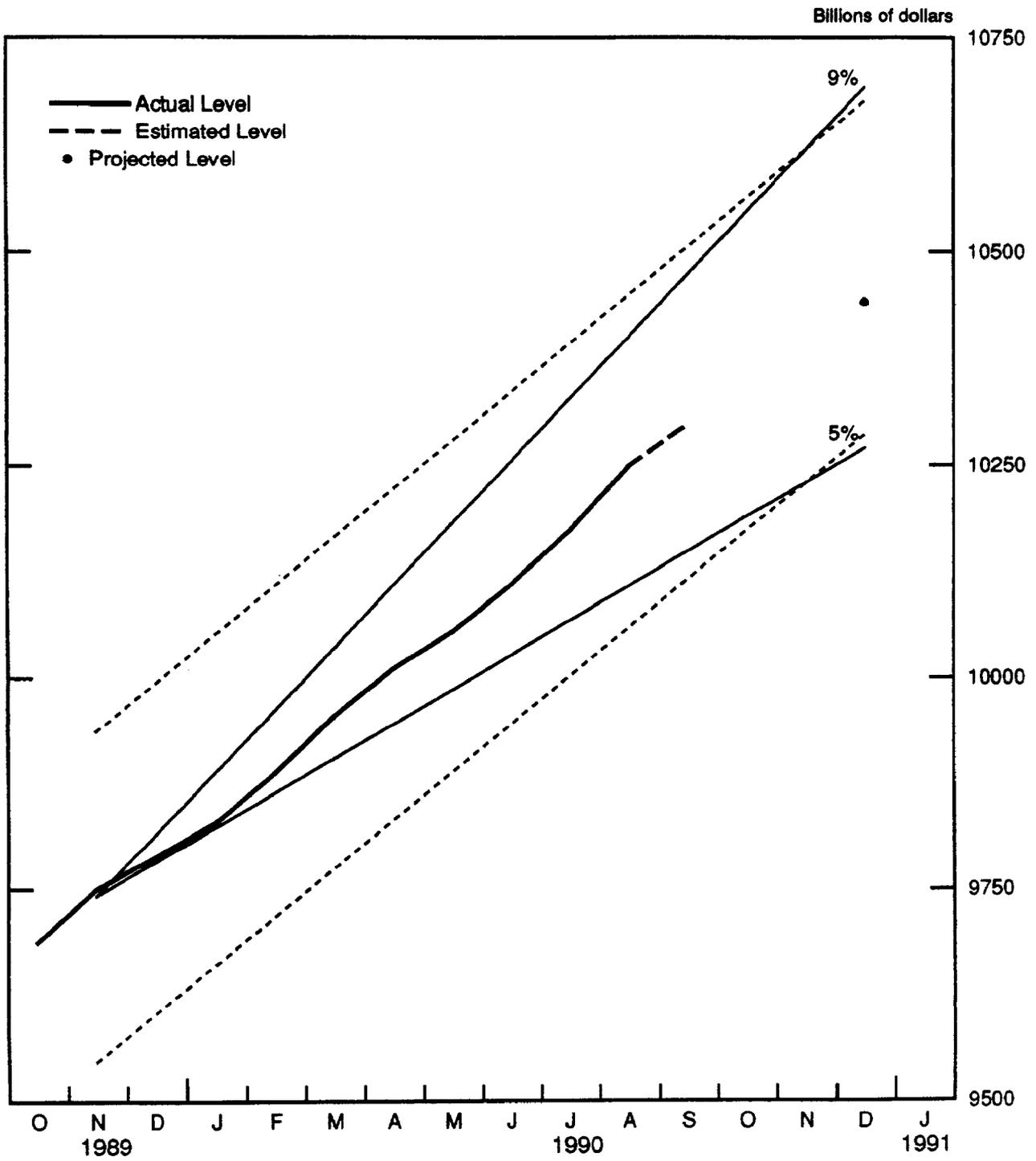


Chart 4  
DEBT



demand for M2, further depressing velocity. Velocity would still decline under alternative C, though by less as opportunity costs widened with the rise in short-term market interest rates. Under all three alternatives, M2 would end the year a little below the midpoint of its 1990 range.

(16) The slower growth of M3 reflects both softer demands for credit at depositories owing to weaker economic activity in the near term and continued restraint on lending by banks and thrifts. Under alternative B, M3 is projected to expand at a 2 percent rate over the September-to-December period, nearly a percentage point less than over the preceding three months. Although slightly faster or slower growth rates would be expected under alternatives A and C, under all three alternatives this aggregate would be appreciably above the lower bound of its annual range.

(17) Overall, the pace of lending in the months ahead is expected to remain relatively slack. Credit supply constraints are likely to continue to have their major effect on commercial real estate. In the household sector, home mortgage borrowing is likely to remain damped by depressed housing activity, and consumer credit should decelerate with the decline in spending on consumer durables. Although small businesses and those below investment grade may feel the effects of intensifying problems of the banks, investment grade borrowers should retain ready access to funds. Nonetheless, corporations may continue to delay bond issuance until long-term interest rates decline, to some extent substituting commercial paper issuance. The financial condition of some state and local governments may limit access to markets, reducing borrowing. In contrast,

federal borrowing should remain heavy, even if there were to be a significant budget package, bolstered by RTC expenditures and the boost in the deficit engendered by the weak economy. The growth of total domestic nonfinancial debt is expected to fall to a 5-1/2 percent pace for the September-to-December period, bringing the increase over the year to about 6-1/2 percent on a fourth-quarter to fourth-quarter basis, near the middle of the 5 to 9 percent monitoring range for this aggregate.

Directive Language

(18) Draft language for the operational paragraph, including the usual options and updating, is shown below.

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 through  
September THROUGH DECEMBER at annual rates of about \_\_\_  
AND \_\_\_ 4 and 2-1/2 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.

## 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			fixed rate	primary market	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
89 -- 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	9.13	10.50	7.81	10.99	10.67	8.63
90 -- Low	8.03	7.35	7.27	7.16	7.86	7.90	7.46	10.00	7.90	7.94	8.00	9.55	7.33	10.07	9.80	8.26
<b>Monthly</b>																
Sep 89	9.02	7.75	7.74	7.65	8.78	8.87	8.60	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	8.56	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	8.33	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	8.22	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	8.05	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	7.94	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
<b>Weekly</b>																
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	9.92	7.48	10.33	10.15	8.45
Jul 4 90	8.33	7.73	7.61	7.49	8.25	8.25	7.67	10.00	8.32	8.43	8.42	10.00	7.43	10.36	10.06	8.46
Jul 11 90	8.28	7.76	7.68	7.58	8.25	8.24	7.65	10.00	8.42	8.53	8.52	9.94	7.40	10.28	10.11	8.45
Jul 18 90	8.14	7.61	7.52	7.37	8.12	8.10	7.65	10.00	8.26	8.47	8.49	9.99	7.40	10.23	9.99	8.39
Jul 25 90	8.05	7.53	7.43	7.33	8.00	7.99	7.59	10.00	8.21	8.50	8.56	9.94	7.38	10.18	9.98	8.41
Aug 1 90	8.03	7.50	7.36	7.24	7.93	7.91	7.55	10.00	8.09	8.38	8.44	10.07	7.33	10.07	9.84	8.38
Aug 8 90	8.07	7.35	7.27	7.16	7.86	7.90	7.49	10.00	8.10	8.62	8.71	10.22	7.51	10.37	10.08	8.39
Aug 15 90	8.13	7.42	7.32	7.17	7.89	7.97	7.49	10.00	8.10	8.67	8.78	10.34	7.53	10.46	10.05	8.31
Aug 22 90	8.30	7.53	7.46	7.34	8.04	8.06	7.51	10.00	8.30	8.82	8.95	10.50	7.80	10.71	10.29	8.36
Aug 29 90	8.08	7.50	7.48	7.38	8.10	8.07	7.47	10.00	8.41	8.95	9.06	10.31	7.70	10.46	10.24	8.30
Sep 5 90	8.25	7.40	7.37	7.25	7.97	7.98	7.47	10.00	8.27	8.87	9.00	10.23	7.68	10.42	10.19	8.29
Sep 12 90	8.12	7.40	7.35	7.24	7.96	7.99	7.47	10.00	8.25	8.83	8.96	10.28	7.64	10.41	10.13	8.26
Sep 19 90	8.18	7.37	7.28	7.22	8.00	8.06	7.46	10.00	8.22	8.87	9.02	10.35	7.73	10.49	10.16	8.30
Sep 26 90	8.26	7.36	7.36	7.29	8.21	8.21	7.47	10.00	8.35	8.99	9.13	10.25	7.81	10.48	10.22	8.28
<b>Daily</b>																
Sep 21 90	8.22	7.36	7.33	7.24	8.18	8.16	..	10.00	8.31	8.99	9.13	..	..	..	..	..
Sep 27 90	8.21	7.23	7.23	7.20	8.27	8.27	..	10.00	8.28	8.91	9.05	..	..	..	..	..
Sep 28 90	8.05 <sub>p</sub>	7.14	7.17	7.17	8.18	8.22	..	10.00	8.20 <sub>p</sub>	8.82 <sub>p</sub>	8.96 <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

Strictly Confidential (FR)  
Class II FOMC

Seasonally adjusted

OCT. 1, 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	10.0	9.7
1988	4.3	5.2	5.5	10.6	6.3	7.1	7.8	8.0	9.5	9.2
1989	0.6	4.6	5.9	-1.3	3.3	4.7	7.5	7.4	7.8	7.7
<b>QUARTERLY AVERAGE</b>										
1989-4th QTR.	5.1	7.1	7.7	-16.6	2.0	3.2	8.1	10.2	6.4	7.3
1990-1st QTR.	4.8	6.4	7.0	-10.2	3.0	3.2	5.3	6.8	5.9	6.1
1990-2nd QTR.	3.5	2.9	2.6	-7.4	0.8	1.4	6.5	9.5	5.9	6.8
1990-3rd QTR. pe	4½	3	2½	-4½	1½					
<b>MONTHLY</b>										
1989-SEP.	3.8	6.4	7.1	-22.4	0.1	1.7	6.8	11.7	5.9	7.3
OCT.	8.0	6.9	6.7	-19.3	1.4	2.5	11.4	10.2	6.6	7.4
NOV.	2.0	7.3	9.0	-9.2	3.9	4.1	7.1	11.7	6.6	7.8
DEC.	8.2	7.6	7.5	-10.4	4.0	5.7	1.5	3.6	5.1	4.8
1990-JAN.	0.0	3.7	4.8	-7.3	1.4	0.9	2.9	4.1	5.2	5.0
FEB.	10.0	9.2	8.9	-12.5	4.8	2.9	9.2	8.4	6.7	7.1
MAR.	5.1	5.7	5.9	-15.7	1.4	4.9	10.0	12.8	6.9	8.3
APR.	3.7	2.3	1.9	-3.8	1.1	2.9	5.2	7.4	6.5	6.7
MAY	-2.8	-2.2	-2.0	-2.9	-2.4	-6.9	3.2	7.2	4.5	5.2
JUNE	6.0	2.6	1.5	-6.0	0.9	5.1	7.1	14.3	4.2	6.6
JULY	-0.3	1.7	2.4	-2.3	0.9	2.9	6.9	13.6	5.6	7.5
AUG.	10.4	6.6	5.3	-3.8	4.6		10.3	19.1	6.0	9.1
SEP. pe	9	6	6	-14	3					
<b>LEVELS (\$BILLIONS) :</b>										
<b>MONTHLY</b>										
1990-APR.	807.3	3277.9	2470.6	796.0	4073.9	4928.6	2646.7	2329.1	7681.5	10010.6
MAY	805.4	3271.8	2466.4	794.1	4065.9	4900.4	2653.8	2343.0	7710.5	10053.6
JUNE	809.4	3279.0	2469.5	790.1	4069.1	4921.3	2669.4	2370.9	7737.8	10108.7
JULY	809.2	3283.7	2474.5	788.6	4072.3	4933.1	2684.7	2397.8	7773.7	10171.5
AUG.	816.2	3301.8	2485.5	786.1	4087.8		2707.8	2436.0	7812.6	10248.6
<b>WEEKLY</b>										
1990-AUG. 6	813.0	3290.5	2477.5	790.8	4081.3					
13	815.1	3298.2	2483.2	785.7	4083.9					
20	818.3	3305.1	2486.8	782.2	4087.4					
27	815.7	3303.5	2487.8	786.6	4090.1					
SEP. 3	820.0	3316.7	2496.7	784.7	4101.4					
10 p	820.7	3317.7	2497.0	779.9	4097.6					
17 p	820.7	3316.1	2495.4	777.6	4093.7					

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

OCT. 1, 1990

Period	Currency	Demand deposits	Other checkable deposits	Overnight RPs and Eurodollars NSA <sup>1</sup>	MMDAs	Savings deposits	Small denomination time deposits <sup>2</sup>	Money market mutual funds		Large denomination time deposits <sup>3</sup>	Term RPs NSA <sup>4</sup>	Term Eurodollars NSA <sup>4</sup>	Savings bonds	Short-term Treasury securities	Commercial paper <sup>4</sup>	Bankers acceptances
								general purpose and broker/dealer <sup>4</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	76.1	479.9	407.7	1138.9	308.0	101.5	560.7	105.1	80.2	116.8	322.3	349.7	40.6
<b>MONTHLY</b>																
1989-AUG.	218.6	278.5	276.0	78.5	468.2	404.0	1130.0	287.8	101.4	570.5	117.6	89.8	115.0	300.3	354.3	42.6
SEP.	219.3	278.1	278.4	75.2	471.9	405.5	1132.6	295.9	101.6	565.6	113.9	85.5	115.7	311.5	350.3	41.0
OCT.	220.0	280.0	280.8	75.7	475.3	406.1	1135.9	302.7	101.1	562.7	109.6	80.1	116.2	317.6	350.0	40.0
NOV.	220.4	278.8	282.8	75.3	480.8	407.9	1138.5	309.0	101.1	561.0	108.9	79.3	116.8	318.8	351.3	40.5
DEC.	221.9	279.7	285.7	77.4	483.7	409.0	1142.3	312.4	102.3	558.3	96.9	81.1	117.5	330.6	347.9	41.2
1990-JAN.	224.6	277.3	285.4	81.9	485.0	410.2	1143.0	318.6	103.2	554.5	93.6	74.1	117.7	334.3	343.3	40.7
FEB.	226.6	280.2	287.0	82.8	489.4	413.6	1142.6	325.3	103.7	550.1	96.9	68.8	118.2	330.4	344.7	38.3
MAR.	228.4	279.3	289.5	82.4	494.9	414.6	1146.4	325.9	105.4	544.1	95.2	67.2	119.1	347.8	342.7	37.0
APR.	230.1	277.8	291.8	79.8	498.8	415.8	1147.7	325.8	106.8	538.3	94.8	66.0	119.9	341.5	357.5	35.8
MAY	231.6	274.5	291.5	83.9	500.0	415.0	1149.0	320.4	107.3	535.3	95.8	67.5	120.7	328.9	349.6	35.3
JUNE	233.4	274.5	293.8	82.5	501.2	415.8	1147.1	321.9	107.3	532.7	98.7	64.3	121.5	346.6	349.4	34.6
JULY	235.4	274.8	291.3	83.9	502.4	416.3	1148.3	325.1	108.9	530.4	97.1	64.0	122.4	356.9	348.7	32.8
AUG.	238.3	278.0	291.9	82.7	505.5	416.3	1149.6	333.8	114.0	524.0	99.1	65.5				

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

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

CLASS II-FOMC

September 28, 1990

Period	Treasury bills			Treasury coupons						Federal agencies redemptions (-)	Net change outright holdings total <sup>5</sup>	Net RPs <sup>6</sup>
	Net purchases <sup>2</sup>	Redemptions (-)	Net change	Net purchases <sup>3 4</sup>				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
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	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	—	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	287	—	287	—	—	—	—	—	—	33	254	2,863
August	4,197	—	4,197	—	—	—	—	—	—	37	4,160	1,110
<b>Weekly</b>												
July 4	—	—	—	—	—	—	—	—	—	—	—	321
July 11	—	—	—	—	—	—	—	—	—	1	-1	4,727
July 18	68	—	68	—	—	—	—	—	—	—	68	-4,620
July 25	65	—	65	—	—	—	—	—	—	32	33	2,483
August 1	201	—	201	—	—	—	—	—	—	—	201	—
August 8	624	—	624	—	—	—	—	—	—	—	624	3,997
August 15	486	—	486	—	—	—	—	—	—	—	486	-2,210
August 22	25	—	25	—	—	—	—	—	—	—	25	-4,157
August 29	89	—	89	—	—	—	—	—	—	37	52	3,283
September 5	3,077	—	3,077	—	—	—	—	—	—	—	3,077	4,774
September 12	—	—	—	—	—	—	—	—	—	—	—	-6,202
September 19	481	—	481	—	—	—	—	—	—	—	481	3,762
<b>Memo: LEVEL (bil \$)<sup>7</sup></b>												
September 26			117.5	25.1	59.7	13.2	24.5		122.5		246.4	-6.1

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
2.4	2.6	1.1	0.2	6.3

September 26