

## **Prefatory Note**

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

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

---

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

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

# MONETARY POLICY ALTERNATIVES

---

Prepared for the Federal Open Market Committee

By the staff Board of Governors of the Federal Reserve System

November 9, 1990

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) Open market operations in the first four weeks after the last FOMC meeting were directed toward maintaining unchanged reserve market conditions, with federal funds expected to trade around 8 percent. On October 29 the Desk implemented the FOMC's decision that, against the background of a weakening economy, called for a more accommodative policy stance following the conclusion of a meaningful budget agreement: The borrowing assumption was reduced by \$50 million (of which about half was in recognition of falling seasonal borrowing) and the federal funds rate was expected to decline by 25 basis points to 7-3/4 percent.<sup>1</sup> Over the intermeeting period, federal funds often traded on the high side of expectations, as commercial banks managed reserve positions cautiously to avoid being caught short and needing either to be seen tapping funding markets in size or being forced to the window.<sup>2</sup> With the Desk boosting the supply of excess reserves early in the current maintenance period, federal

---

1. To account for the declines in seasonal borrowing that typically occur in the fall, the allowance for adjustment and seasonal borrowing also was reduced by \$50 million at the beginning of each of the first two maintenance periods following the meeting and in the middle of the current maintenance period.

2. The Federal Reserve's published "effective" federal funds rate also has been boosted by increasing spreads on federal funds sold to Japanese banks relative to the rates paid by domestic banks and displayed on broker screens. The Japanese banks are reported to be borrowing more heavily in the overnight funds market, and their credit standing has declined somewhat as a result of falling asset values in Japan, which have eroded their capital directly and raised questions about their loan portfolios.

funds have generally traded a bit below 7-3/4 percent in recent days.<sup>3</sup>

(2) Most other market interest rates also declined over the intermeeting period. In general, decreases were greater for Treasury than for private issues, owing to increased concerns about credit quality and more restrictive supply conditions discussed below in paragraph (4). Three-month Treasury bill rates fell 15 basis points, while 30-year Treasury bond yields declined 20 basis points. Yields on Treasury bonds rose appreciably shortly after the October FOMC meeting when the budget accord failed to pass; yields more than retraced these increases in recent weeks, however, reflecting renewed prospects for fiscal restraint, clearer signs of a softening economy, and heightened preference for safe investments.

(3) Indications of greater weakness in the U.S. economy and the associated expectations of easing by the Federal Reserve contributed to a 3-1/2 percent decline in the dollar's weighted average exchange value; the decline was intensified by signs that monetary policy was tightening in Germany and remaining restrictive in Japan. The Bundesbank increased its Lombard rate by 1/2 percentage point, paving the way for a moderate increase in market rates, and the Bank of Japan took pains to signal an unchanged monetary policy in the face of a bond market rally.<sup>4</sup>

---

3. Although low levels of excess collateral for Federal Reserve notes were a matter of some concern during the period, in the event open market operations were not constrained by the level of note collateral. Early in November, authorized note collateral (that is, eligible collateral other than foreign currency assets) was boosted by \$2-1/2 billion, in effect, as a result of the unwinding by the Exchange Stabilization Fund of warehousing of foreign currency (German marks) with the Federal Reserve. A balance equivalent to \$4-1/2 billion remains warehoused with the System.

4.

(4) Concerns about creditworthiness were manifest in various sectors of the credit markets during the intermeeting period. Announcements that loan problems worsened during the third quarter and the deteriorating economic outlook and slumping real estate markets all implied greater difficulties for a broad range of borrowers and their creditors. A number of finance and insurance companies encountered increased investor resistance, and yields on their debt have risen relative to Treasury securities. Funding difficulties of certain money center banks persisted; some lenders reportedly trimmed or eliminated a number of lines, money funds continued to shun the obligations of a number of banks, and rates on capital issues of several money center banks rose further. The prime rate remained at 10 percent, resulting in an unusually wide spread over the federal funds and CD rates, as banks sought to build margins and discourage borrowing. In addition, survey results indicate that banks have further tightened credit standards and both price and nonprice terms of credit for their business borrowers in the last three months. For non-financial firms with direct access to credit markets, the spread of rates paid by the highest quality borrowers relative to those on Treasury issues was little changed. However, lower-rated issuers faced some widening of spreads: The gap between Baa- and Aaa-rated corporate bonds rose 20 basis points, and that between rates on medium- and high-grade commercial paper rose about 1/8 percentage point from its September average.

(5) Diminished credit availability and retrenchment of spending plans appear to be continuing to restrain business borrowing. C&I loans at banks are estimated to have contracted at a 2-1/2 percent annual rate over September and October. Bond issuance by nonfinancial firms also has

been subdued for several months. During September, firms obtained a substantial amount of financing in the commercial paper market, but outstandings have been about unchanged since the end of that month. Data for September indicate some moderation in business credit growth at finance companies. In the tax-exempt markets, problems seem to have been confined to the obligations of several large cities with troubled finances. Overall issuance was fairly strong in September before dropping off in October. The few pieces of available data on recent household borrowing suggest a modest pace of expansion. About one-quarter of surveyed banks indicated that they had begun to tighten lending standards for residential mortgages, and a quarter said that their enthusiasm for making consumer loans had waned. Heavy Treasury borrowing to finance its outsized fourth-quarter deficit is augmenting growth of total nonfinancial sector debt; this measure is estimated to have expanded at a 6-3/4 percent rate for the year through September, leaving it near the middle of its monitoring range.

(6) The broad monetary aggregates were about flat in October, with M2 expanding at only a 1 percent annual rate and M3 contracting slightly. Some slowing had been anticipated in view of weak nominal income growth and the likely absence of the special factors that had boosted growth during the preceding two months, but money growth has fallen well short of projections. The shortfall in M2 can be only partially accounted for by the downward revision in estimated income growth. In general, money growth since the spring has been substantially slower than can be explained on the basis of historical relationships with income and opportunity costs. The underpredictions of the money demand models

may be indicative of the reduced role of deposit intermediaries in the credit process, but they also may suggest the possibility that the path of income was weaker than is now estimated.

(7) The sluggishness of M2 in October was broad-based. Its liquid retail component contracted, while small time deposits remained subdued despite a narrowing of opportunity costs in recent months. Demand deposits also dropped.<sup>5</sup> Growth of M2 from the fourth quarter through October was 4 percent at an annual rate. The managed liability components of the non-M2 part of M3 also declined in October as banks restrained asset growth and thrifts shrank owing partly to the bulge in RTC resolutions around quarter-end. Institution-only money funds, however, surged, as their yields lagged the decline in market rates. Through October, M3 was only 1/2 percentage point above the lower bound of its annual range.

---

5. Growth of the monetary base fell to a 7-1/2 percent rate in October from the 14 percent average rate of the previous two months, as currency growth slowed somewhat and required reserves declined at an 8 percent rate, in line with the drop in transactions deposits.

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

	Aug.	Sept.	Oct.	QIV' 89 to Oct.
<u>Money and credit aggregates</u>				
M1	10.1	9.3	-2.9	4.0
M2	6.4	5.6	1.2	4.0
M3	4.4	0.9	-0.5	1.6
Domestic nonfinancial debt	7.5	7.2	n.a.	6.8 <sup>1</sup>
Bank credit	10.3	0.1	1.2	5.1
<u>Reserves measures</u>				
Nonborrowed reserves <sup>2</sup>	2.1	10.5	-4.7	-0.3
Total reserves	8.6	6.7	-9.1	-0.3
Monetary base	13.1	14.6	7.0	8.8
Memo: (Millions of dollars)				
Adjustment plus seasonal borrowing	799	618	392	--
Excess reserves	868	909	849	--

n.a. - Not available.

1. Through September.

2. Includes "other extended credit" from the Federal Reserve.

NOTE: Monthly reserve measures, including excess reserves and borrowing, are calculated by prorating averages for two-week reserve maintenance periods that overlap months.

Monetary Policy Alternatives

(8) Three policy alternatives are presented below for Committee consideration. Under alternative B, federal funds would continue trading around 7-3/4 percent. Under alternative A, the funds rate would move down to the 7-1/4 percent area, while under alternative C it would firm slightly, returning to around the 8 percent level prevailing at the last meeting. The associated level of adjustment plus seasonal borrowing under alternative B would be set at \$250 million in the first maintenance period after the meeting and might need to be lowered another \$50 million over the intermeeting period to accommodate the ongoing decline in the demand for seasonal credit. Under alternative A, the initial level of borrowing would be lowered to \$200 million (or the discount rate could be cut by 1/2 percentage point), while under alternative C it would be raised to \$275 million. The relationship of reserve availability and the federal funds rate is likely to remain highly uncertain and volatile as banks manage reserves to avoid being seen at the discount window or being forced to tap potentially unreceptive funding sources.

(9) Interest rates currently embody anticipation of a 1/4 point drop in the funds rate in the near-term. Nevertheless, market rates are not likely to back up significantly under the unchanged reserve conditions of alternative B, since expectations of an easing would be maintained if, as expected, incoming information confirms a weakening economy. An unchanged policy would provide some underpinning for the foreign exchange value of the dollar, especially if market participants see that stance as in part motivated by concerns about potential further weakening in the

dollar. Quality spreads may widen further, reflecting year-end positioning and mounting concerns about defaults. A number of large banks, especially those with weak capital positions and eroding access to capital markets, expect to be holding down balance sheet totals to bolster capital positions and investor confidence. At the same time, many investors, particularly mutual funds and others publishing year-end statements, are likely to intensify efforts to shed assets of less than top quality, including holdings of some bank obligations. Under these conditions, it will be difficult to distinguish transitory disturbances in relative interest rates and credit flows from signals of more fundamental and lasting problems of borrowers.

(10) In view of the expectations of some easing already built into rates, short-term interest rates would decrease somewhat less than the 50 basis point decline in the federal funds rate, under alternative A. Banks may be encouraged to advance credit less reluctantly by the wider margins they would enjoy, and by greater confidence of repayment as lower interest rates countered weakness in the economy and bolstered asset prices. Banks eventually would pass the drop in funding costs on to their customers through a lower prime rate, though the adjustment could be sluggish, especially given the desire to limit footings at year-end, and margins will remain unusually high. In the context of the softer economy and lessened pressures on resources, long-term rates, too, should decline, with fixed-rate mortgages dropping below 10 percent. The extent of the decline in long-term rates might be limited should the likely drop in the foreign exchange value of the dollar be especially steep, which would be seen as accentuating price pressures, possibly limiting the scope for

further policy easing. The odds on a sharper drop in the dollar would be greater if the easing seemed to reflect especially heightened Federal Reserve concern about the strength of the financial system and the real economy, with reduced priority given to restraining price pressures. From this perspective, the risk that market participants would interpret a 1/2 percentage point cut in the federal funds rate as conveying such signals might be increased if the cut were accomplished by a reduction in the discount rate.

(11) Under alternative C, the dollar would retrace at least some of its recent decline in response to a rise in the federal funds rate. A tightening of policy would come as a surprise to market participants, especially in light of the recent decline in the funds rate on the heels of the budget accord. Short-term rates would generally rise by 1/4 percentage point or more, as expectations of further easing were extinguished. Bond rates also would increase initially. Quality spreads might widen appreciably, with strains on lower-rated borrowers seen as being heightened as the Federal Reserve appeared willing to tolerate a weaker path for economic activity.

(12) Projected growth of the monetary aggregates under all three alternatives is presented in the table. (Detailed data are shown on the table and charts on the following pages.) Under all the alternatives, M2 and M3 will be substantially below the paths specified in the current directive, despite the recent easing of money market rates. To some extent, this reflects the money growth data already in hand for October. Looking forward, because the supply of credit through depositories has tightened more than anticipated, asset expansion at depositories and

associated demand for funding will continue to be damped. Nominal GNP for the fourth quarter is now projected to be somewhat slower than at the last FOMC meeting, which also implies reduced demands for money and credit. M2 will remain below the midpoint of its 1990 range and M3 just above its lower bound under all three alternatives; differences in monetary growth that emerge late in the year under the various alternatives have imperceptible effects on annual growth for 1990 but more impact on the position of the aggregates relative to their tentative ranges for 1991.

	<u>Alt. A</u>	<u>Alt. B</u>	<u>Alt. C</u>
Growth from Sept. to Dec.			
M2	2	1-1/2	1-1/4
M3	0	0	0
M1	1-1/2	1	3/4
Associated federal funds rate ranges	5-1/2 to 9-1/2	6 to 10	6 to 10

(13) Under alternative B, M2 probably would strengthen, but only a bit--to a 1-3/4 percent rate over November and December. Its M1 component is projected to resume expanding over the final two months of the year, boosted by some bounceback of transactions deposits owing to a lagged response to the previous reduction in opportunity costs and the effect of declining market rates on compensating balance requirements. On a quarterly average basis, M2 would grow at a 2-3/4 percent rate, appreciably faster than nominal GNP in the staff forecast but well below projections of standard money demand models. The strengthening of M2 would be expected to extend into the first quarter, with this aggregate above the lower end of its provisional 1991 range. Under alternative A, the drop in opportunity costs would boost M2 to a 2-3/4 percent rate over the

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
<b>Levels in billions</b>									
1990 July	3283.8	3283.8	3283.8	4072.8	4072.8	4072.8	809.0	809.0	809.0
August	3301.4	3301.4	3301.4	4087.7	4087.7	4087.7	815.8	815.8	815.8
September	3316.9	3316.9	3316.9	4090.7	4090.7	4090.7	822.1	822.1	822.1
October	3320.1	3320.1	3320.1	4089.1	4089.1	4089.1	820.1	820.1	820.1
November	3322.0	3321.2	3320.8	4090.8	4090.5	4090.3	822.2	821.8	821.6
December	3333.9	3330.1	3328.1	4091.8	4090.5	4089.8	825.0	824.1	823.7
<b>Monthly Growth Rates</b>									
1990 July	1.9	1.9	1.9	1.1	1.1	1.1	-0.6	-0.6	-0.6
August	6.4	6.4	6.4	4.4	4.4	4.4	10.1	10.1	10.1
September	5.6	5.6	5.6	0.9	0.9	0.9	9.3	9.3	9.3
October	1.2	1.2	1.2	-0.5	-0.5	-0.5	-2.9	-2.9	-2.9
November	0.7	0.4	0.3	0.5	0.4	0.4	3.0	2.5	2.3
December	4.3	3.2	2.6	0.3	0.0	-0.1	4.1	3.4	3.1
<b>Quarterly Ave. Growth Rates</b>									
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	2.9	2.9	2.9	4.9	4.9	4.9
Q2	2.8	2.8	2.8	0.8	0.8	0.8	3.5	3.5	3.5
Q3	3.1	3.1	3.1	1.4	1.4	1.4	4.1	4.1	4.1
Q4	3.0	2.8	2.7	0.7	0.6	0.6	3.3	3.1	3.0
Sept 90 to Dec. 90	2.1	1.6	1.3	0.1	0.0	-0.1	1.4	1.0	0.8
Oct. 90 to Dec. 90	2.5	1.8	1.4	0.4	0.2	0.1	3.6	3.0	2.7
Q4 89 to Q3 90	4.1	4.1	4.1	1.7	1.7	1.7	4.2	4.2	4.2
Q4 89 to Q4 90	3.9	3.8	3.8	1.5	1.5	1.5	4.0	4.0	3.9
Q4 89 to Sept 90	4.3	4.3	4.3	1.8	1.8	1.8	4.8	4.8	4.8
Q4 89 to Oct. 90	4.0	4.0	4.0	1.6	1.6	1.6	4.1	4.1	4.1
Q4 89 to Dec. 90	3.8	3.7	3.6	1.4	1.4	1.3	4.0	3.9	3.9

1990 Target Ranges:

3.0 to 7.0

1.0 to 5.0

Chart 1

# ACTUAL AND TARGETED M2

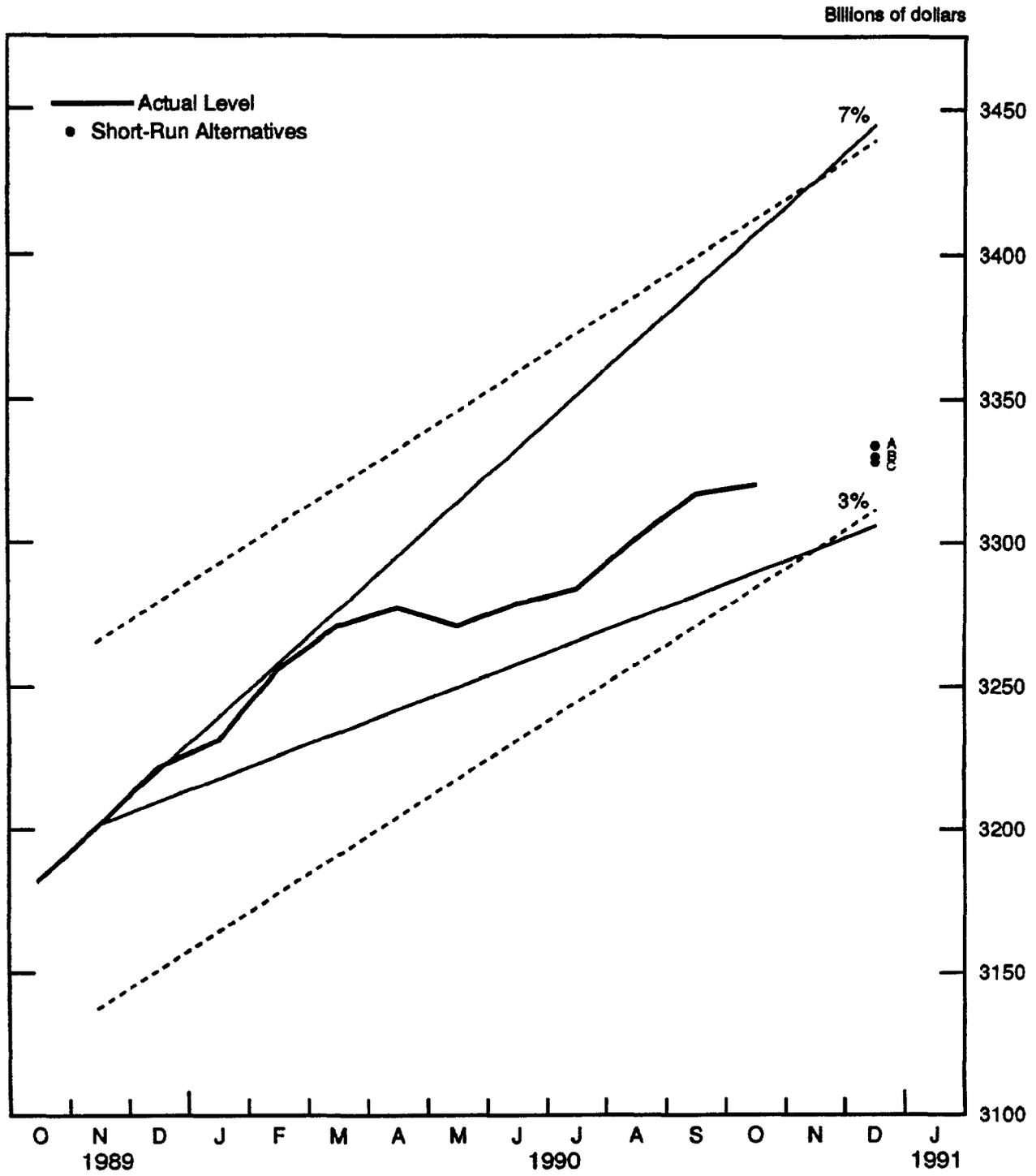


Chart 2

# ACTUAL AND TARGETED M3

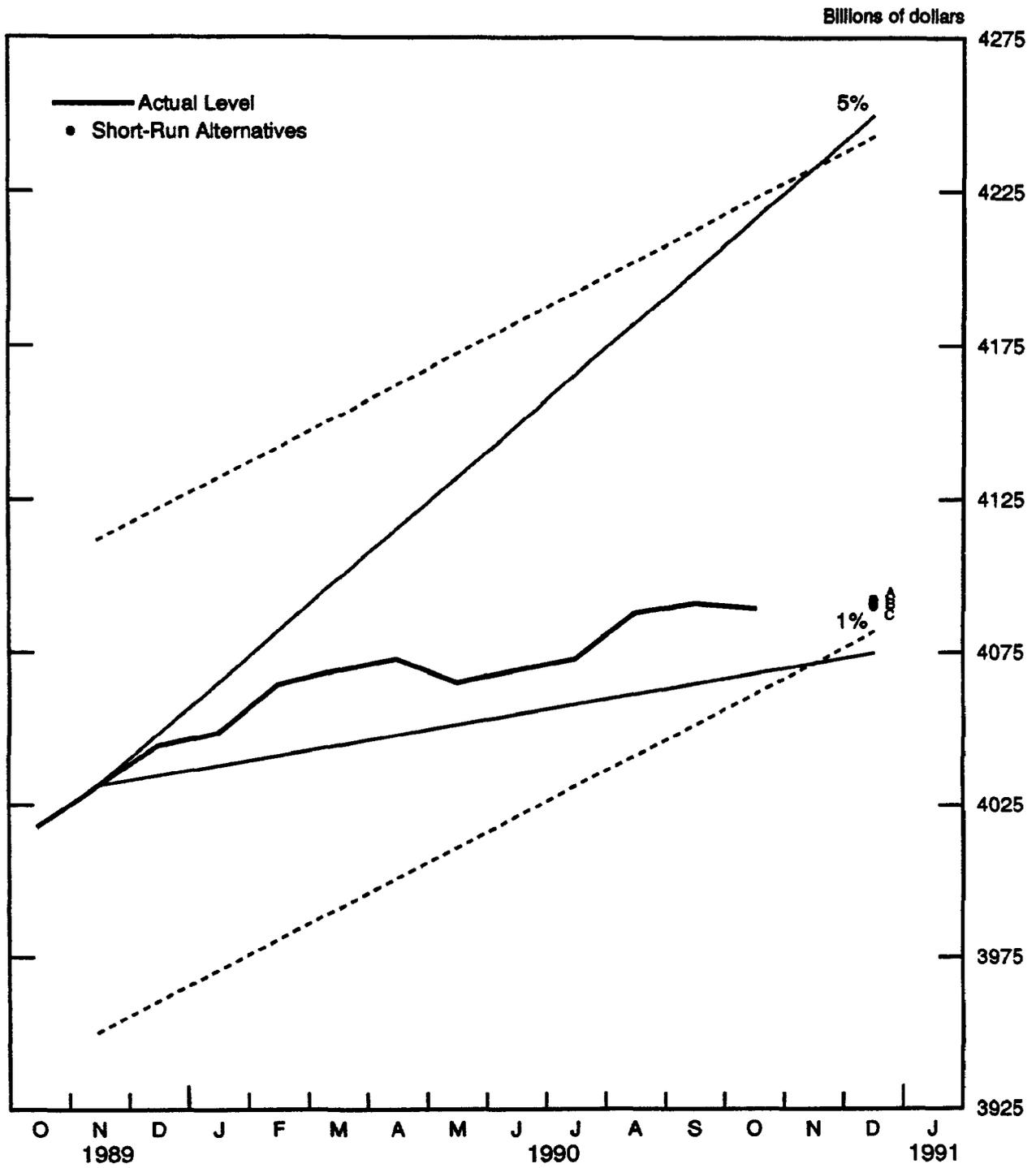


Chart 3

# M1

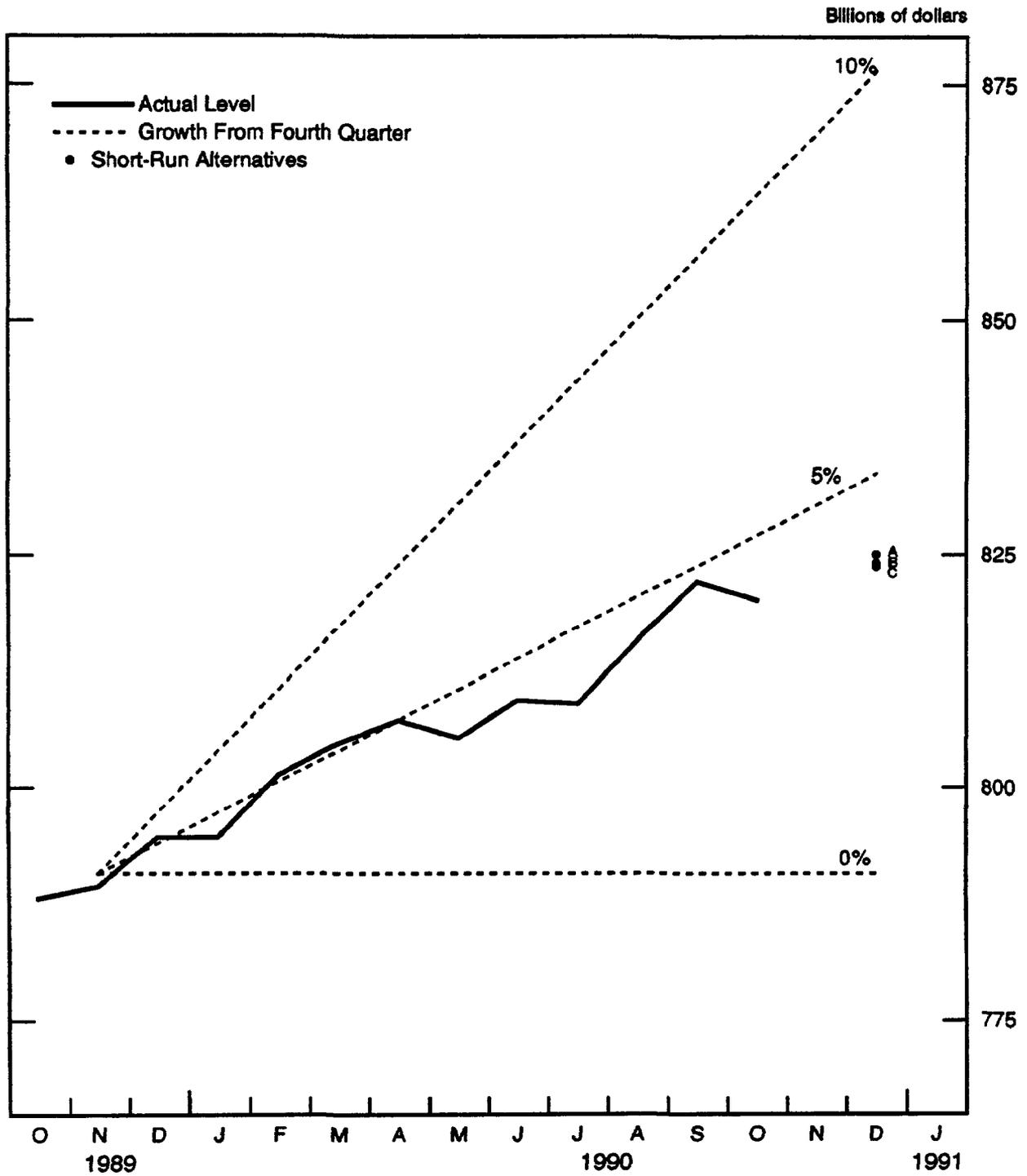
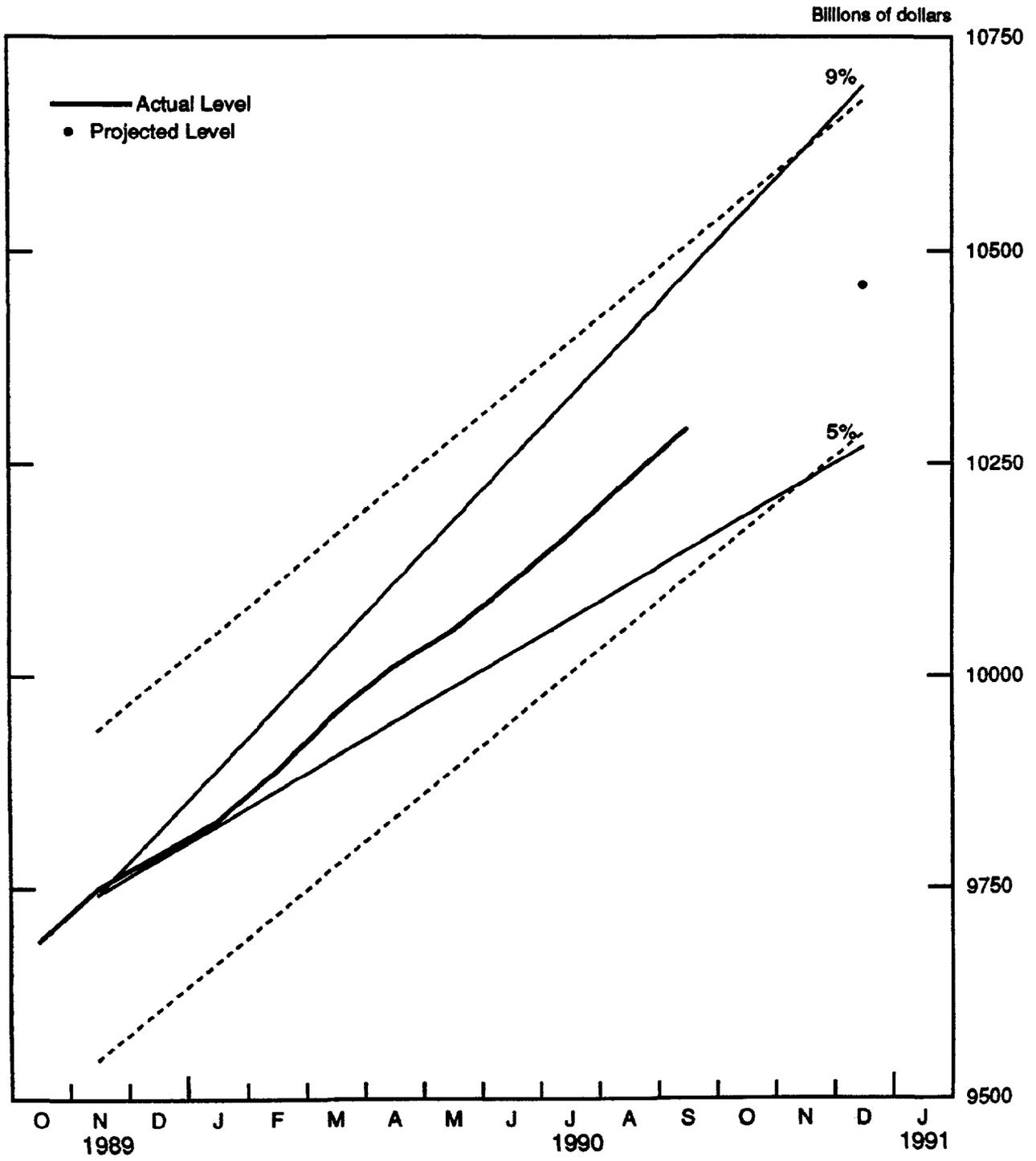


Chart 4  
DEBT



final two months of the year and put it in the middle portion of its new range in the first quarter. The firming in M2 growth under alternative C would be quite modest and this aggregate would be entering the new year around the lower end of its tentative 1991 range.

(14) M3 would be little changed over November and December under any of the alternatives. Some pickup in RTC resolution activity from the pace of recent weeks also will tend to restrain growth of the aggregates, especially M3. The slight differences in the growth of M3 under alternative A and C in December would owe largely to inflows to money market mutual funds, as their rate advantage temporarily rose or declined, respectively. In all cases, growth in M3 through the first quarter of next year would be around the lower end of its tentative range.

(15) Stringent conditions in credit markets and weak credit demands will damp private credit growth over the remainder of the year. In the business sector, credit flows for construction and development activities and commercial properties will decline in the fourth quarter, partly in response to the pull back by lenders. Less than top-rated firms--including medium and smaller businesses--are likely to face higher costs and further reduction in the availability of credit from banks and other lenders. In the context of desires to bolster capital ratios at year-end, the reluctance of banks to extend credit to some borrowers may be accentuated by demands from some borrowers with existing lines of credit. In particular, medium-rated commercial paper issuers can be expected to tap their backup lines with banks to pay down paper in response to wider spreads in that market. Household debt growth also

should slow, reflecting the weakness in consumption expenditures--especially for durables--and anemic housing activity. The growth of the debt of nonfederal sectors is expected to average only around 5 percent over the fourth quarter. The federal government, by contrast, will be a heavy borrower over the final two months of the year. As a result, the growth of total debt of domestic nonfinancial sectors is expected to be boosted to a rate of about 6 percent over this period, placing growth for the year at 6-3/4 percent, near the midpoint of its 5 to 9 percent range.

Directive Language

(16) Draft language for the operational paragraph, including the usual options, is shown below. The language for the last sentence on the federal funds rate range does not reflect any of the alternatives presented in the memorandum by Messrs. Lindsey, Kohn, and Sternlight.

OPERATIONAL PARAGRAPH

In the implementation of policy for the immediate future, the Committee seeks to DECREASE SOMEWHAT/maintain/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 September through December at annual rates of about \_\_ AND \_\_ 4 and 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			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	9.13	10.50	7.83	10.99	10.67	8.63
Low	7.96	7.08	7.05	6.87	7.86	7.87	7.38	10.00	7.84	7.94	8.00	9.55	7.33	10.07	9.80	8.09
Monthly																
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
Sep 90	8.20	7.36	7.32	7.24	8.06	8.09	7.47	10.00	8.27	8.89	9.03	10.28	7.72	10.45	10.18	8.28
Oct 90	8.11	7.17	7.16	7.06	8.06	8.04	7.45	10.00	8.07	8.72	8.86	10.23	7.74	10.47	10.18	8.21
Weekly																
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
Oct 3 90	8.23	7.17	7.18	7.13	8.10	8.13	7.47	10.00	8.16	8.77	8.91	10.16	7.75	10.39	10.08	8.25
Oct 10 90	8.20	7.14	7.16	7.09	8.06	8.10	7.47	10.00	8.09	8.76	8.90	10.34	7.83	10.63	10.22	8.24
Oct 17 90	7.96	7.16	7.18	7.10	8.12	8.09	7.43	10.00	8.15	8.82	8.97	10.23	7.75	10.42	10.24	8.19
Oct 24 90	7.99	7.23	7.18	7.06	8.08	8.07	7.45	10.00	8.03	8.65	8.79	10.20	7.64	10.43	10.17	8.17
Oct 31 90	8.17	7.14	7.12	6.98	7.98	7.90	7.42	10.00	7.99	8.66	8.79	10.11	7.55	10.34	10.13	8.15
Nov 7 90	7.97	7.08	7.05	6.87	7.95	7.87	7.38	10.00	7.84	8.55	8.68	10.15	7.53	10.41	10.09	8.09
Daily																
Nov 2 90	8.02	7.08	7.04	6.88	7.94	7.87	..	10.00	7.88	8.57	8.70	..	..	..	..	..
Nov 8 90	7.77	7.09	7.06	6.88	7.99	7.90	..	10.00	7.82	8.58	8.73	..	..	..	..	..
Nov 9 90	7.67 p	7.05	7.04	6.86	7.99	7.91	..	10.00	7.77 p	8.49 p	8.63 p	..	..	..	..	..

NOTE Weekly data for columns 1 through 11 are statement week averages. Data in column 7 are taken from Donoghue's Money Fund Report. Columns 12, 13 and 14 are 1-day quotes for Friday, Thursday or Friday, respectively, following the end of the statement week. Column 13 is the Bond Buyer revenue index. Column 14 is the FNMA purchase yield plus loan servicing fee, on 30-day mandatory delivery commitments. Column 15 is the average contract rate on new commitments for fixed-rate mortgages (FRMs) with 80 percent loan-to-value ratios at major institutional lenders. Column 16 is the average initial contract rate on new commitments for 1-year, adjustable-rate mortgages (ARMs) at major institutional lenders offering both FRMs and ARMs with the same number of discount points.

p -- preliminary data

# Money and Credit Aggregate Measures

Strictly Confidential (FR)  
Class II FOMC

Seasonally adjusted

NOV. 13, 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	7.7	8.0	9.5	9.2
1989	0.6	4.6	5.9	-1.3	3.3	4.6	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	3.1	8.1	10.2	6.4	7.3
1990-1st QTR.	4.8	6.4	6.9	-10.4	2.9	2.7	5.3	6.8	5.9	6.1
1990-2nd QTR.	3.5	2.8	2.6	-7.3	0.8	0.8	6.5	9.5	5.9	6.8
1990-3rd QTR.	4.1	3.1	2.7	-5.1	1.4		6.6	14.1	4.6	6.8
<b>MONTHLY</b>										
1989-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	3.5	4.6	-7.6	1.2	0.3	2.9	4.1	5.2	5.0
FEB.	10.0	9.2	8.9	-12.9	4.7	1.9	9.2	8.4	6.7	7.1
MAR.	5.1	5.6	5.8	-15.9	1.4	4.0	10.0	12.8	6.9	8.3
APR.	3.7	2.3	1.9	-3.6	1.2	2.4	5.3	7.4	6.5	6.7
MAY	-2.8	-2.3	-2.1	-2.3	-2.3	-7.2	3.2	7.2	4.5	5.2
JUNE	6.0	2.8	1.8	-5.4	1.2	4.8	7.1	14.3	4.2	6.6
JULY	-0.6	1.9	2.7	-2.0	1.1	2.7	6.9	13.6	4.8	6.9
AUG.	10.1	6.4	5.2	-4.3	4.4	3.0	10.3	19.1	3.9	7.5
SEP.	9.3	5.6	4.5	-19.1	0.9		0.1	11.0	6.0	7.2
OCT. pe	-3	1	3	-7	-1		1			
<b>LEVELS (\$BILLIONS) :</b>										
<b>MONTHLY</b>										
1990-MAY	805.4	3271.0	2465.7	794.0	4065.0	4887.1	2653.8	2343.0	7710.5	10053.6
JUNE	809.4	3278.7	2469.3	790.4	4069.1	4906.8	2669.4	2370.9	7737.8	10108.7
JULY	809.0	3283.8	2474.8	789.1	4072.8	4918.0	2684.7	2397.8	7768.6	10166.5
AUG.	815.8	3301.4	2485.5	786.3	4087.7	4930.4	2707.8	2436.0	7794.1	10230.1
SEP.	822.1	3316.9	2494.8	773.8	4090.7		2708.5	2458.4	7832.8	10291.2
<b>WEEKLY</b>										
1990-SEP.										
3	819.5	3315.8	2496.3	784.6	4100.4					
10	820.2	3316.8	2496.6	779.7	4096.5					
17	820.0	3314.4	2494.4	777.4	4091.8					
24	821.1	3315.1	2494.0	768.8	4083.9					
OCT.										
1	828.2	3321.2	2493.1	763.1	4084.4					
8	821.8	3325.2	2503.4	766.7	4091.9					
15	818.8	3322.3	2503.5	766.2	4088.5					
22 p	818.4	3317.7	2499.4	772.5	4090.3					
29 p	820.0	3316.5	2496.4	770.8	4087.3					

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

NOV. 13, 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>4</sup>	Term RPs NSA <sup>3</sup>	Term Eurodollars NSA <sup>3</sup>	Savings bonds	Short-term Treasury securities	Commercial paper <sup>1</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	267.1	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	322.1	349.7	40.6
<b>MONTHLY</b>																
1989-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	311.3	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	317.4	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	318.6	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	330.3	347.9	41.2
<b>1990-</b>																
JAN.	224.6	277.3	285.4	81.6	485.0	410.2	1143.0	318.6	103.2	554.5	93.6	73.9	117.7	332.3	343.3	40.7
FEB.	226.6	280.2	287.0	82.4	489.4	413.6	1142.6	325.3	103.7	550.1	96.9	68.4	118.2	324.9	344.7	38.3
MAR.	228.4	279.3	289.5	81.9	494.9	414.6	1146.4	325.9	105.4	544.1	95.2	66.6	119.1	338.9	342.7	37.0
APR.	230.1	277.8	291.8	79.3	498.8	415.8	1147.7	325.8	106.8	538.3	94.8	65.5	119.9	330.3	357.5	35.8
MAY	231.6	274.5	291.5	83.2	500.0	415.0	1149.0	320.4	107.3	535.4	95.8	67.2	120.7	316.5	349.6	35.3
JUNE	233.4	274.5	293.8	82.3	501.2	415.8	1147.1	321.9	107.3	532.8	98.7	64.4	121.5	332.2	349.4	34.6
JULY	235.4	274.7	291.2	84.2	502.5	416.3	1148.1	325.1	108.9	530.4	97.1	64.5	122.4	341.3	348.7	32.8
AUG.	238.4	277.9	291.6	83.0	505.6	416.3	1149.2	333.8	114.0	523.9	99.0	66.1	123.2	342.2	345.1	32.2
SEP.	241.5	279.7	292.6	82.2	507.2	415.8	1149.9	340.1	116.1	516.7	95.6	66.1				

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

November 9, 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	2,498	2,400	96	172	1,361	287	284	—	2,104	125	2,075	924
—Q3	-8,450	3,200	-9,650	—	-163	9	—	—	-172	99	-9,921	-993
—Q4	9,264	4,930	4,333	155	-24	—	—	500	-369	31	3,934	3,877
1990 —Q1	-3,799	1,400	-5,199	100	100	—	—	—	200	—	-5,000	-4,061
—Q2	10,892	—	10,892	50	100	—	—	—	150	78	10,964	509
—Q3	5,115	—	5,115	—	—	—	—	—	—	70	5,045	95
1989 November	8,794	3,530	5,264	155	—	—	—	—	155	—	5,419	-483
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	79	5,818	-1,260
May	3,365	—	3,365	—	—	—	—	—	—	—	3,365	-378
June	1,732	—	1,732	50	—	—	—	—	50	—	1,782	2,148
July	287	—	287	—	—	—	—	—	—	33	254	2,863
August	4,197	—	4,197	—	—	—	—	—	—	37	4,160	1,110
September	631	—	631	—	—	—	—	—	—	—	631	-3,878
October	846	—	846	—	—	—	—	—	—	34	812	36
Weekly												
August 1	201	—	201	—	—	—	—	—	—	—	201	203
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	-4,157
September 5	3,077	—	3,077	—	—	—	—	—	—	—	3,077	4,774
September 12	—	—	—	—	—	—	—	—	—	—	—	-6,202
September 19	481	—	481	—	—	—	—	—	—	—	481	3,762
September 26	—	—	—	—	—	—	—	—	—	—	—	-3,097
October 3	—	—	—	—	—	—	—	—	—	—	—	2,822
October 10	21	—	21	—	—	—	—	—	—	—	21	-3,257
October 17	200	—	200	—	—	—	—	—	—	—	200	-170
October 24	625	—	625	—	—	—	—	—	—	34	591	-4,615
October 31	—	—	—	—	—	—	—	—	—	—	—	2,490
Memo: LEVEL (bil \$) <sup>7</sup>												
November 7			121.7	25.4	59.5	13.1	24.5		122.5		250.6	-3.1

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
2.5	2.5	1.1	0.2	6.3