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**December 15, 1989**

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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

December 15, 1989

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) Since the FOMC meeting on November 14, open market operations have been aimed at maintaining the reserve conditions established after the slight easing in early November. The allowance for adjustment and seasonal borrowing incorporated in the nonborrowed reserve objective remained at \$200 million until a technical adjustment to \$150 million was made in the second full maintenance period to take account of a further decline in seasonal borrowing.<sup>1</sup> Federal funds have traded mostly around 8-1/2 percent. The funds rate dropped notably below this level around Thanksgiving, however, after market participants erroneously concluded that policy had been eased again. A reserve injection just before Thanksgiving to meet a sizable seasonal need at a time when federal funds were at 8-3/8 percent triggered this perception, which was subsequently reversed by draining reserves the following Monday at an early hour.<sup>2</sup> The necessity to drain reserves at a time when projections pointed to a reserve shortfall contributed to a bulge in borrowing to \$419 million in the main-

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1. Seasonal borrowing declined from \$150 million immediately after the last FOMC meeting to \$90 million in the maintenance period ended Wednesday, December 13.

2. The reserve injection on Wednesday was in the form of a 5-day System RP over the period spanning Thanksgiving and the subsequent weekend. The market's perception of ease was reinforced by a newspaper's stories on Friday reporting confirmation by "government officials." Reserves were absorbed on Friday, but the federal funds rate did not return to around 8-1/2 percent until the earlier than usual draining operation on Monday.

tenance period ending November 29. In the second and most recent complete period, borrowing averaged \$130 million.

(2) With no change in policy and incoming economic information generally consistent with expectations of slow growth in the economy, most market interest rates are little changed on balance from the last FOMC meeting. The yield curve remains inverted at the short end, as it has since late October, suggesting the market continues to expect further declines in short-term rates.

(3) In long-term markets, the gap between the average yield on lower grade junk bonds and other market rates has widened further, as investor resistance to these securities intensified in the face of further problems among issuers. Partly in response to difficulties in the junk bond market in recent months, the pace of net equity retirements in the fourth quarter has been well below that of the third. Despite this slow-down and disappointing third-quarter corporate earnings, most major stock indexes advanced 1 to 3 percent over the intermeeting period, with the Dow Jones rising 5 percent. Indexes of thrift and bank stock prices dropped, however, in response to spreading problems in real estate markets. Nonetheless, the spread between rates on bank money market instruments and Treasury bills remained unusually narrow.

(4) The weighted average foreign exchange value of the dollar declined by almost 4 percent over the intermeeting period. The dollar fell by 6-1/2 percent against the mark, mainly reflecting events in Eastern Europe and their supposed favorable implications for the German economy, and by somewhat less against other EMS currencies. The dollar

was unchanged against the yen, and fell slightly against sterling.

the Desk sold \$150 million against the yen.

Interest differentials against major industrial countries showed little change over the period; three-month rates in both Germany and Japan eased back a bit, while long bond rates in those countries were about unchanged. Rates in some European countries drifted higher as they resisted downward pressures on their currencies relative to the DM.

(5) Growth of M2 picked up a bit further in November, to an 8-1/2 percent pace, bringing the rate of increase from September to 8-1/4 percent, above the 7-1/2 percent path specified by the Committee for the September-to-December period; preliminary data through December 11 suggest continued robust expansion this month. The strength in M2 reflects earlier declines in market interest rates and has been concentrated in its liquid interest-bearing components, where the decreases in opportunity costs have been greatest. Noncompetitive bidders at Treasury auctions have been running down their holdings, providing corroborating evidence of substitution out of market assets. Demand deposits contracted last month, reversing almost one-half of October's surge, and M1 growth slowed to a 3-1/2 percent rate despite a continued double digit rate of expansion in other checkable deposits.<sup>3</sup>

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3. The runoff in demand deposits caused total reserves to contract in November, following two months of rapid growth. Expansion of the monetary base also slowed, reflecting, in addition to the weakness in its reserves component, a continued sluggish expansion of currency.

(6) M3 expanded at a 6 percent pace in November, the fastest rate since the summer, and the average October-November pace of 5-1/4 percent was above the Committee's expected 4-1/2 percent growth for the September-to-December period. Partial data through the first part of December indicate that this aggregate is continuing to expand at close to its November pace. The acceleration in November occurred as the contraction of the thrift component of managed liabilities in M3 abated. This reflected less aggressive efforts on the part of solvent but capital-deficient thrifts to shed assets and a hiatus in activities by the Resolution Trust Corporation (RTC).<sup>4</sup> M3 also was boosted last month by strong growth in institution-only MMMFs, since yields on these funds tended to lag the decline in market rates.

(7) Expansion of the debt of nonfinancial sectors evidently slowed last month, apparently owing, at least in part, to shifts in financing patterns rather than reductions in borrowing to finance spending. For example, a moderation in business borrowing was accounted for largely by a reduced issuance of junk bonds and a slowing in the pace of equity retirements. In addition, while the federal deficit was about unchanged, borrowing fell as the Treasury drew down its cash balance. And, offerings of state and local securities also were cut back, but mostly in the area of advance refundings. Information on the household sector is sparse; consumer lending at banks continued brisk, probably

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4. The RTC neither advanced funds nor resolved any cases in November, though insolvent thrifts continued to enter conservatorship. The pace of resolutions has been slowed by the absence of a formal strategic plan of action (one has been out for public comment) and concerns about insufficient working capital.

reflecting a further increase in their share of consumer credit. Growth of real estate loans at banks slowed slightly in November, though this may reflect more caution in commercial lending.

(8) All the monetary and debt aggregates are ending 1989 within their annual ranges, as can be seen in the table below, with growth moderating from 1988. Through November, M2 expanded at a 4-1/2 percent rate from the fourth quarter of last year, down 3/4 of a percentage point from 1988. M2 growth was damped by a slowing of growth in nominal income, as

**Money and Debt Growth**  
(percent)

	<u>1988</u>	1988 QIV to <u>Nov. 1989</u>	<u>1989 ranges</u>
M2	5.2	4.6	3 to 7
M3	6.3	3.9	3-1/2 to 7-1/2
M1	4.3	0.3	--
Nonfinancial debt	9.2	8.1 <sup>1</sup>	6-1/2 to 10-1/2

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1. Through October.

well as by the lagged effects of the year-long rise in interest rates and opportunity costs that came to an end in March. Within the year, M2 growth showed a pronounced pattern: through midyear higher interest rates and unusually large personal tax payments held the aggregate below its target range; subsequent rate declines and a rebuilding of liquid balances boosted M2 to just below the midpoint of its annual range. The pattern was even more pronounced for M1, given its greater interest elasticity;

this aggregate declined at around a 5 percent rate in the first half of the year before rebounding in the second. On balance M1 is about unchanged over the year, and growth of its velocity likely equalled the fastest pace in three decades. Events in the thrift industry have not had much effect on the overall level of M2, although growth was skewed heavily towards its bank deposit and money market mutual fund components. By contrast, M3 growth this year--at 4 percent, a bit above the lower bound of its 3-1/2 to 7-1/2 percent range--has been damped considerably by the liquidation of thrift assets and infusions of funds by the RTC. Although banks probably absorbed some of these assets, many mortgages and mortgage-backed securities apparently were acquired by other investors and thus not financed by M3 liabilities. The expansion of nonfinancial debt decelerated about in line with GNP this year, and it is expected to finish the year about 8 percent above its level in the fourth quarter of 1988, near the midpoint of its 6-1/2 to 10-1/2 percent monitoring range.



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

	September	October	November	September to November	QIV '88 to November
<u>Money and Credit Aggregates</u>					
M1	5.7	10.1	3.5	6.8	0.3
M2	7.5	7.8	8.4	8.2	4.6
M3	1.0	4.5	6.0	5.2	3.9
Domestic nonfinancial debt	7.1	8.3	n.a.	8.3 <sup>1</sup>	8.1 <sup>1</sup>
Bank credit	6.2	15.2	4.0	9.6	7.5
<u>Reserve measures</u>					
Nonborrowed reserves <sup>2</sup>	8.9	11.0	3.0	7.0	-1.8
Total reserves	9.6	8.1	-1.1	3.5	-2.0
Monetary base	7.5	2.8	1.4	2.1	3.1
Memo: (Millions of dollars)					
Adjustment plus seasonal borrowing	671	534	328	--	--
Excess reserves	938	1,020	940	--	--

n.a. - not available.

pe - preliminary estimate.

1. Through October.

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.

### Policy Alternatives

(9) Three policy alternatives are presented below for Committee consideration. The specifications of alternative B involve federal funds continuing to trade in the 8-1/2 percent area in association with adjustment plus seasonal borrowing of \$150 million. Under alternative A, the federal funds rate would decline to the 8 percent area accompanying a decline in adjustment plus seasonal borrowing to \$100 million. Federal funds would return to the 9 percent area under alternative C, associated with adjustment plus seasonal borrowing of \$200 million. The differences in the borrowing levels among the three alternatives, \$50 million, is only half that contained in recent bluebooks. The low level to which seasonal borrowing has fallen, together with the continued close proximity of adjustment borrowing to frictional levels, implies that borrowing probably has become even more unresponsive to the spread between the funds rate and the discount rate.<sup>5</sup> Uncertainties in the relationship between the funds rate and borrowing, even more of a problem at such low levels of borrowing, continue to call for flexibility in the Desk's approach to the borrowing objective.

(10) Money growth paths from November to March associated with each alternative are shown in the table below. (More detailed data appear in the table and charts on the following pages.) Boosted by earlier declines in interest rates, M2 growth under all the alternatives would continue fairly strong, running through the first quarter at or above the upper end of its tentative 3 to 7 percent target cone for 1990, though

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<sup>5</sup> Seasonal borrowing may drop a little further into January, but declines should be less than over the most recent intermeeting period.

within the associated parallel band. The outlook for M3 continues to be clouded by considerable uncertainties about thrifts. One source of uncertainty pertains to the rate at which solvent but capital-deficient institutions pare assets in order to meet new FIRREA capital requirements. Another is the near-term activity of the RTC; absent provision for working capital early next year, RTC's scope for completing deals and replacing high-cost funds in the first quarter may be limited. As noted above, both RTC activity and S&L asset runoffs appear to have diminished substantially, but we expect these factors to become more important in the months ahead, retarding M3, though not to the degree of late summer and early fall.<sup>6</sup> As a consequence, M3 growth is projected to continue below that of M2, leaving this aggregate in March in the middle portion of its tentative range.

	<u>Alt. A</u>	<u>Alt. B</u>	<u>Alt. C</u>
Growth from November to March			
M2	9	8	7
M3	6	5-1/2	5
M1	7-1/2	6	4-1/2
Implied growth from Q4 '89 to March			
M2	9	8	7
M3	6	5-1/2	5
M1	7-1/4	5-3/4	4-1/4
Associated federal funds rate range	6 to 10	7 to 11	7 to 11

6. RTC is in the process of resolving several thrifts before year-end.

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									
1989 October	3176.8	3176.8	3176.8	4027.4	4027.4	4027.4	787.7	787.7	787.7
November	3199.1	3199.1	3199.1	4047.5	4047.5	4047.5	790.0	790.0	790.0
December	3221.2	3220.7	3220.2	4068.5	4068.2	4067.9	794.2	794.0	793.8
1990 January	3245.2	3242.2	3239.2	4087.8	4086.5	4085.2	799.3	798.3	797.3
February	3268.9	3262.7	3256.5	4107.3	4103.9	4100.5	804.3	802.1	799.9
March	3293.9	3283.3	3272.7	4127.2	4120.4	4113.6	809.7	805.8	801.9
Monthly Growth Rates									
1989 October	7.8	7.8	7.8	4.5	4.5	4.5	10.1	10.1	10.1
November	8.4	8.4	8.4	6.0	6.0	6.0	3.5	3.5	3.5
December	8.3	8.1	7.9	6.2	6.1	6.0	6.4	6.1	5.8
1990 January	8.9	8.0	7.1	5.7	5.4	5.1	7.7	6.5	5.3
February	8.8	7.6	6.4	5.7	5.1	4.5	7.4	5.6	3.8
March	9.2	7.6	6.0	5.8	4.8	3.8	8.1	5.5	3.0
Quarterly Ave. Growth Rates									
1989 Q1	1.9	1.9	1.9	3.7	3.7	3.7	-0.4	-0.4	-0.4
Q2	1.2	1.2	1.2	2.9	2.9	2.9	-5.6	-5.6	-5.6
Q3	7.3	7.3	7.3	4.6	4.6	4.6	1.5	1.5	1.5
Q4	7.9	7.9	7.9	4.0	4.0	4.0	6.2	6.2	6.1
1990 Q1	8.8	8.0	7.2	5.9	5.5	5.2	7.0	5.8	4.7
Sept 89 to Dec. 89	8.2	8.2	8.1	5.6	5.6	5.5	6.7	6.6	6.5
Nov. 89 to Mar. 90	8.9	7.9	6.9	5.9	5.4	4.9	7.5	6.0	4.5
Dec. 89 to Mar. 90	9.0	7.8	6.5	5.8	5.1	4.5	7.8	5.9	4.0
Q4 88 to Q4 89	4.6	4.6	4.6	3.9	3.9	3.9	0.4	0.4	0.4
Q4 89 to Q1 90	8.8	8.0	7.2	5.9	5.5	5.2	7.0	5.8	4.6
Q4 89 to Jan. 90	8.7	8.1	7.6	5.9	5.8	5.6	6.6	5.9	5.2
Q4 89 to Feb. 90	8.7	8.0	7.2	5.9	5.5	5.2	6.9	5.8	4.7
Q4 89 to Mar. 90	8.9	7.9	6.9	5.9	5.4	4.9	7.2	5.8	4.3
1989 Target Ranges:	3.0 to 7.0			3.5 to 7.5					
1990 Ranges (Tentative):	3.0 to 7.0			3.5 to 7.5					

Chart 1  
**ACTUAL AND TARGETED M2**

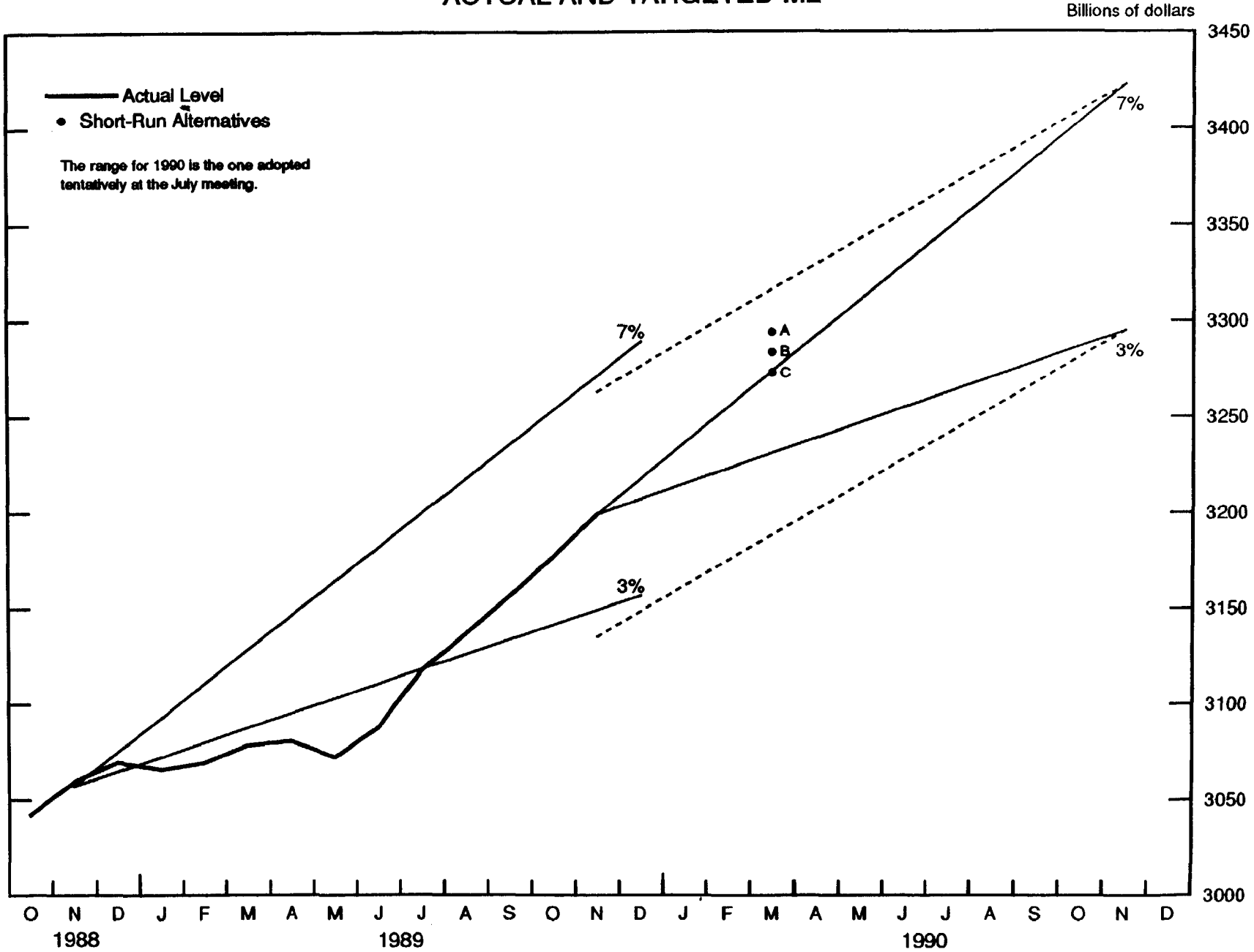


Chart 2  
**ACTUAL AND TARGETED M3**

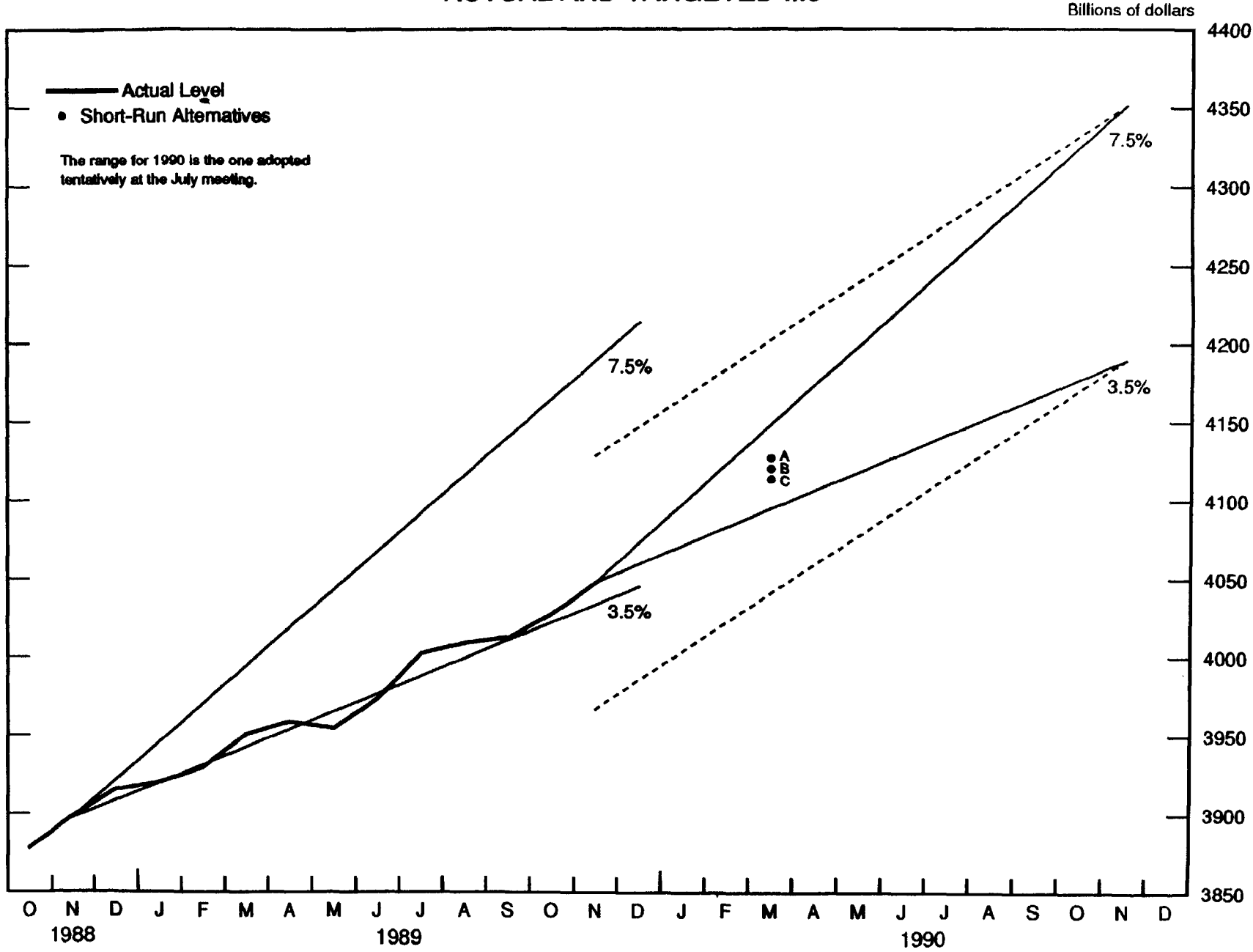


Chart 3  
M1

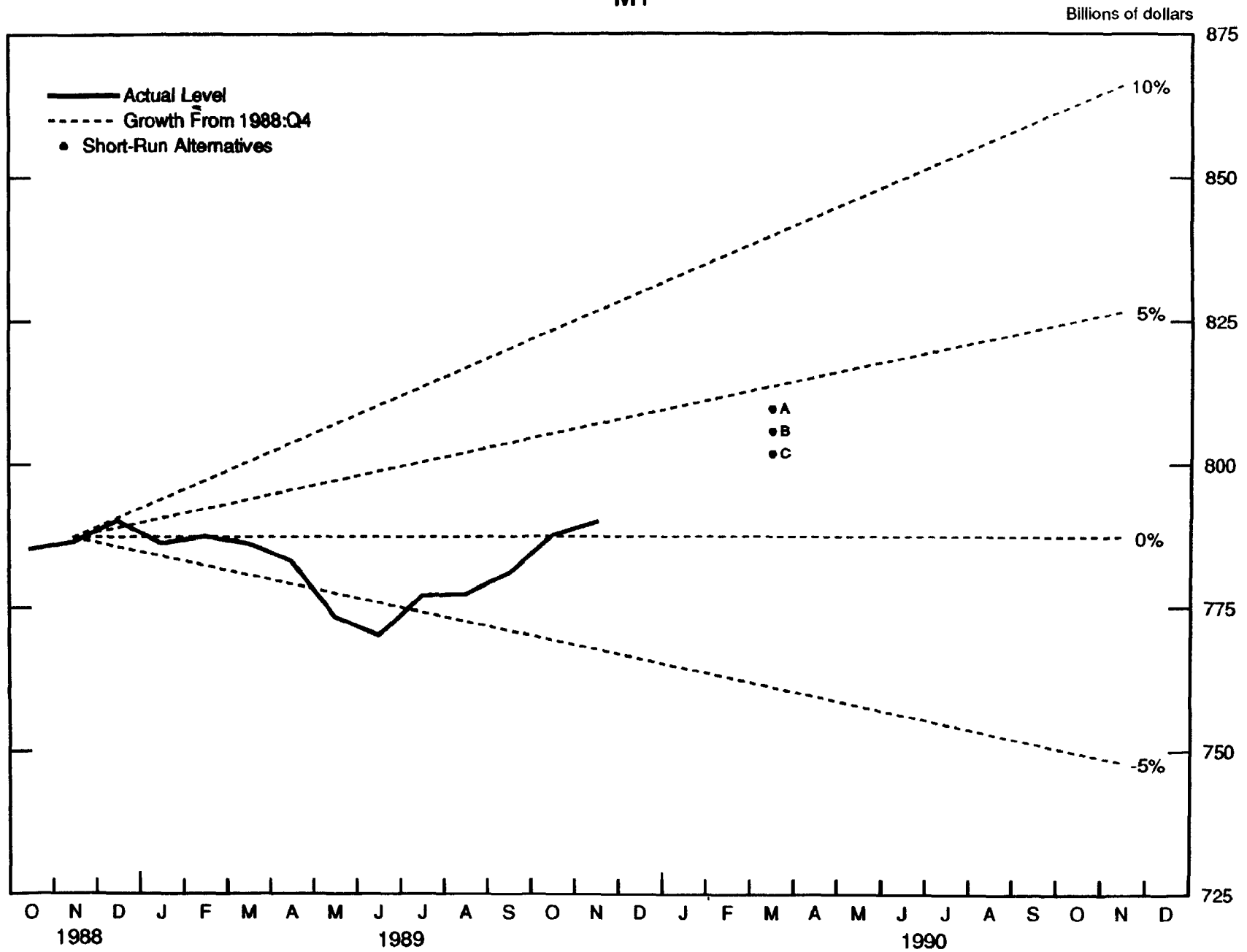
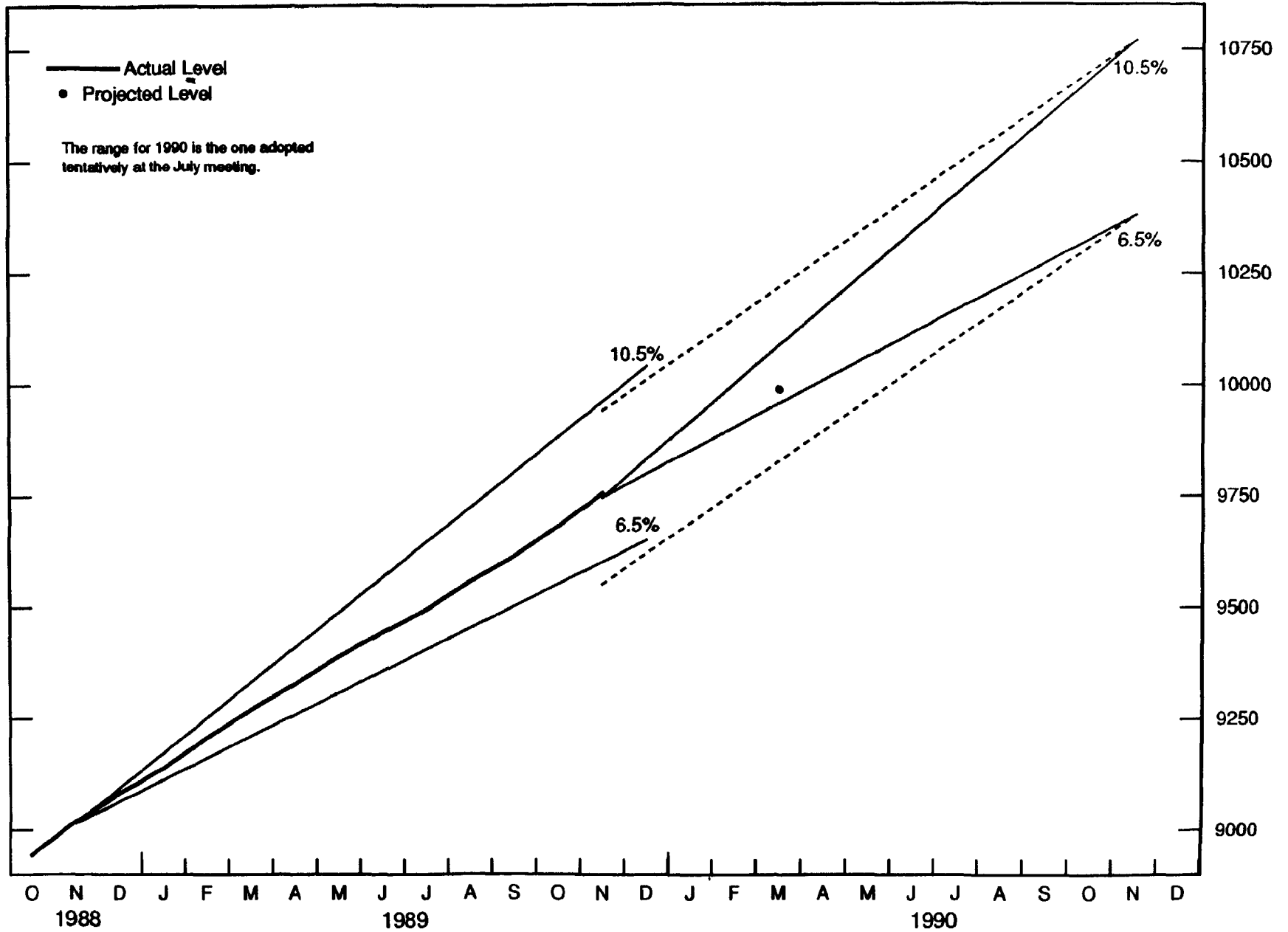


Chart 4  
DEBT

Billions of dollars





(11) The markets have built in some additional easing of policy in the near term, and as federal funds continue to trade around 8-1/2 percent under alternative B, money market rates might firm a little.<sup>7</sup> Any tendency for rates to rise is likely to be tempered if incoming information points to sluggish economic growth, consistent with the staff forecast, so that markets retain but push back their expectations of the next easing step. Bond yields are likely to stay around current levels under these circumstances. Bond prices could rally should more definite prospects for substantial deficit reduction emerge from the upcoming Administration budget as well as the implications of developments overseas for future defense expenditures. With policy unchanged, the dollar might show little further depreciation, unless key foreign central banks tighten policies further.

(12) Under alternative B, M2 would expand at an 8 percent annual rate over the November-to-March period, near the pace of recent months.<sup>8</sup> Growth would continue to be buoyed by previous declines in market interest rates, causing a further reduction in the velocity of this aggregate at a 1-3/4 percent annual rate in the first quarter. Expansion would remain concentrated in its more liquid components, whose opportunity costs have narrowed the most. Small time deposits could strengthen a little now that RTC no longer is providing additional funds to replace high-cost deposits.

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7. The federal funds rate may temporarily exceed this level around year-end; markets now appear to have built in funds rates in the area of 10 percent over the long New Year's weekend.

8. The staff does not believe that the availability of foreign currency deposits in the United States beginning in January will have much impact on the monetary aggregates. Such deposits will be excluded from the aggregates, and the amount of shifting to foreign currency accounts from dollar deposits in the aggregates is expected to be small.

In these circumstances, intervened thrifts may continue to bid more aggressively to retain or replace maturing brokered deposits, as they have in recent weeks, prompting other depository institutions to raise their offering rates. While most of the small time deposits would come from other M2 sources, some might be diverted from outside M2, given the more favorable deposit rates. Growth in the M1 component would be expected to be around 6 percent over the November-to-March period, sustained by inflows to OCDs and some augmenting of demand deposits around year-end to meet compensating balance requirements. By March, M2 would have grown 8 percent at an annual rate from its fourth-quarter base; but absent any significant changes in the funds rate, M2 subsequently would be expected to moderate to within its tentative annual target cone in the third quarter.

(13) M3 is expected to grow at a 5-1/2 percent annual rate under alternative B, in line with its faster pace of October and November. Growth of this aggregate may decelerate over the quarter, damped by run-offs of assets at capital-deficient thrifts as well as by a resumption of RTC activity at insolvent institutions. Credit growth at banks should remain close to the pace of recent months; these institutions will continue to fill some of the void in residential and consumer installment lending and acquisitions of mortgage securities caused by the withdrawal of the thrift industry.

(14) Debt of private nonfinancial sectors is expected to continue to grow around the slower pace that has come to prevail in the latter part of 1989. To some extent this may result from a more cautious attitude of

lenders facing not only mounting problems in junk bond and real estate markets but also the possibility of greater credit difficulties by household and business borrowers more generally as income growth slows. Residential mortgage borrowing should continue to expand around its recent pace, buoyed by the modest recovery in housing activity in response to reduced mortgage rates. Elsewhere in the household sector, consumer credit growth is expected to strengthen a bit, reflecting a near-term recovery in spending on durables. With the financing gap unchanged and restructuring activity damped, business borrowing should remain around the reduced pace of recent months. The federal government will continue to be a heavy user of credit to finance a still-large federal deficit in the first quarter. Over the November-to-March period, growth of domestic nonfinancial debt is expected to be around 7 percent, placing the debt aggregate in the lower portion of its tentative 6-1/2 to 10-1/2 percent monitoring range for 1990.

(15) The easing of policy under alternative A would be a little more than now seems to be anticipated by market participants over coming weeks. In response to a drop in the federal funds rate to the 8 percent area, money market interest rates would decrease about 3/8 percentage point, with the three-month bill trading around 7-1/4 percent. Bond rates should move lower, especially if market participants viewed the economy as being fairly weak so that such a measure would not appreciably raise the risk of higher inflation, though judging from the tepid response of bond markets to the putative easing around Thanksgiving, any declines might be small. The dollar could weaken significantly further.

(16) With the further drop in interest rates, growth in M2 would strengthen under alternative A to a 9 percent annual rate over the November-to-March period, placing this aggregate noticeably above the upper end of its tentative growth cone. In the absence of a subsequent tightening of policy, expansion of M2 would be likely to remain quite strong for some time, especially if the lower interest rates fed through to greater spending and demand for money than in the staff forecast. Under alternative A, growth in M3 would firm to a 6 percent rate over the November-to-March period, a bit above the midpoint of its tentative 1990 range. A decline in market rates might not boost M3 in line with previous experience, since higher prices on mortgages and mortgage-backed securities could encourage the sale of assets by thrifts.

(17) Alternative C would restrain M2 growth to around the upper bound of its 1990 growth cone by March, putting it on a track toward the middle of its tentative range; such a move would seem to increase the odds on more noticeable progress toward price stability, with assistance from a stronger dollar, albeit with greater risk of an economic downturn. The accompanying slowdown in M3--to an expected 5 percent annual rate over the November-to-March period--would cause this aggregate to drift downward in the lower half of its tentative 1990 growth range. A tightening of policy would come as a surprise to market participants, and short-term interest rates would rise by more than the 50 basis point increase in the federal funds rate. Bond rates initially would rise, though this increase might be retraced if markets came to see the move as part of a longer-term strategy to restrain spending and prices. An aspect of this restraint

would be a transition period that involved a weaker outlook for profits, downward pressure on various asset prices, and an intensification of strains in certain vulnerable areas of the financial system, with implications for intermediaries and other lenders.

Directive Language

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

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 might (WOULD) or slightly (SOMEWHAT) lesser reserve restraint (MIGHT) would 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 NOVEMBER THROUGH MARCH September through December at annual rates of about \_\_\_ AND \_\_\_ 7-1/2 and 4-1/2 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 \_\_\_ 7 to 11 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	
88 -- High	8.87	8.16	8.26	8.40	9.33	9.41	8.18	10.50	9.16	9.36	9.42	10.73	8.34	11.33	10.81	8.54
Low	6.38	5.61	5.81	6.15	6.58	6.50	6.03	8.50	7.33	8.16	8.40	9.63	7.64	9.98	9.84	7.49
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	8.46	7.54	7.35	7.16	8.24	8.35	7.89	10.50	7.60	7.82	7.89	9.26	7.19	9.92	9.68	8.39
Monthly																
Dec 88	8.76	8.07	8.22	8.32	9.25	9.31	8.00	10.50	9.11	9.11	9.01	10.08	7.88	10.98	10.61	8.39
Jan 89	9.12	8.27	8.36	8.37	9.20	9.03	8.33	10.50	9.20	9.09	8.93	10.09	7.63	10.97	10.73	8.55
Feb 89	9.36	8.53	8.55	8.55	9.51	9.29	8.79	10.93	9.32	9.17	9.01	10.25	7.72	11.03	10.65	8.65
Mar 89	9.85	8.82	8.85	8.82	10.09	9.88	8.89	11.50	9.61	9.36	9.17	10.37	7.85	11.47	11.03	9.09
Apr 89	9.84	8.65	8.65	8.64	9.94	9.77	9.14	11.50	9.40	9.18	9.03	10.33	7.73	11.32	11.05	9.40
May 89	9.81	8.43	8.41	8.31	9.59	9.57	9.13	11.50	8.98	8.86	8.83	10.09	7.51	10.90	10.77	9.30
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
Weekly																
Sep 6 89	8.96	7.86	7.80	7.69	8.80	8.88	8.23	10.50	8.33	8.20	8.15	9.55	7.43	10.43	10.17	8.71
Sep 13 89	8.96	7.70	7.69	7.59	8.75	8.86	8.26	10.50	8.19	8.15	8.10	9.49	7.45	10.30	10.05	8.68
Sep 20 89	9.05	7.64	7.62	7.53	8.70	8.82	8.25	10.50	8.11	8.11	8.11	9.56	7.59	10.42	10.03	8.70
Sep 27 89	9.02	7.80	7.80	7.72	8.83	8.89	8.25	10.50	8.35	8.27	8.24	9.60	7.59	10.57	10.16	8.70
Oct 4 89	9.18	7.85	7.89	7.83	8.93	8.94	8.27	10.50	8.42	8.27	8.21	9.40	7.50	10.21	10.11	8.72
Oct 11 89	8.93	7.67	7.69	7.58	8.74	8.79	8.25	10.50	8.14	8.07	8.04	9.33	7.46	10.24	9.95	8.60
Oct 18 89	8.76	7.54	7.54	7.35	8.48	8.56	8.20	10.50	7.92	7.98	7.98	9.37	7.47	10.16	9.92	8.58
Oct 25 89	8.72	7.55	7.52	7.30	8.50	8.55	8.13	10.50	7.89	7.92	7.93	9.39	7.47	10.13	9.82	8.58
Nov 1 89	8.80	7.73	7.55	7.32	8.50	8.60	8.11	10.50	7.90	7.91	7.92	9.29	7.47	10.15	9.82	8.55
Nov 8 89	8.69	7.78	7.60	7.37	8.54	8.61	8.07	10.50	7.94	7.92	7.91	9.27	7.45	10.08	9.79	8.52
Nov 15 89	8.46	7.68	7.51	7.25	8.38	8.44	8.00	10.50	7.77	7.88	7.89	9.31	7.39	9.96	9.72	8.49
Nov 22 89	8.46	7.65	7.43	7.16	8.35	8.43	7.98	10.50	7.72	7.84	7.90	9.26	7.35	10.06	9.74	8.47
Nov 29 89	8.51	7.64	7.43	7.19	8.25	8.35	7.93	10.50	7.75	7.85	7.91	9.26	7.31	10.07	9.74	8.46
Dec 6 89	8.52	7.57	7.35	7.19	8.24	8.51	7.94	10.50	7.74	7.83	7.89	9.29	7.35	10.07	9.76	8.39
Dec 13 89	8.47	7.66	7.39	7.25	8.32	8.57	7.89	10.50	7.78	7.84	7.90	9.33	7.29	9.98	9.75	8.39
Daily																
Dec 8 89	8.46	7.61	7.33	7.22	8.28	8.54		10.50	7.77	7.82	7.88					
Dec 14 89	8.51	7.62	7.39	7.21	8.41	8.65		10.50	7.70	7.79	7.85					
Dec 15 89	8.54 <sub>p</sub>	7.62	7.39	7.13	8.37	8.68		10.50	7.70 <sub>p</sub>	7.81 <sub>p</sub>	7.86 <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-year 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

## Bank Reserves, Money and Credit Aggregate Measures

Seasonally adjusted

DEC. 18, 1989

Period	Bank reserves <sup>1</sup>			Money stock measures and liquid assets				Bank credit	Domestic nonfinancial debt		
	nonborrowed	total	monetary base	M1	M2	M3	L	total loans and investments	U.S. government <sup>2</sup>	other <sup>2</sup>	total <sup>2</sup>
	1	2	3	4	5	6	7	8	9	10	11
<b>LEVELS (\$BILLIONS) :</b>											
<b>ANNUALLY (4TH QTR.)</b>											
1986	55,725	56,532	238,801	709.4	2788.3	3470.2	4107.9	2068.9	1783.8	5725.7	7509.5
1987	58,393	59,175	256,914	754.7	2905.7	3667.7	4332.0	2237.6	1943.7	6311.1	8254.9
1988	58,514	60,807	274,515	787.4	3057.1	3897.1	4639.0	2409.6	2098.8	6916.1	9014.9
<b>MONTHLY</b>											
1988-NOV.	57,991	60,853	274,381	786.6	3059.5	3898.1	4635.5	2410.2	2098.2	6920.5	9018.7
DEC.	58,990	60,706	275,503	790.3	3069.6	3915.4	4672.2	2417.2	2113.5	6968.7	9082.2
1989-JAN.	58,708	60,370	276,815	786.3	3065.9	3920.2	4676.3	2422.8	2121.8	7017.1	9138.9
FEB.	58,773	60,260	277,598	787.5	3069.4	3929.5	4689.4	2451.9	2137.8	7069.2	9207.0
MAR.	58,041	59,854	276,676	786.3	3078.5	3950.8	4724.5	2464.9	2158.7	7110.5	9269.2
APR.	57,174	59,463	278,753	783.2	3080.9	3958.8	4750.1	2470.9	2168.8	7158.8	9327.6
MAY	57,020	58,740	278,427	773.4	3072.3	3954.8	4746.1	2486.3	2176.4	7212.9	9389.3
JUNE	56,860	58,350	279,060	770.3	3088.0	3973.4	4759.0	2496.8	2184.2	7259.9	9444.1
JULY	58,004	58,698	280,014	777.2	3117.5	4002.5	4793.4	2518.1	2183.9	7310.6	9494.4
AUG.	58,079	58,753	280,288	777.4	3136.5	4009.0	4812.9	2534.4	2199.9	7359.0	9558.9
SEP.	58,530	59,223	282,045	781.1	3156.2	4012.4	4824.9	2544.1	2220.1	7395.2	9615.3
OCT.	59,066	59,621	282,703	787.7	3176.8	4027.4	4853.4	2575.5	2238.3	7443.4	9681.7
NOV. p	59,216	59,565	283,033	790.0	3199.1	4047.5		2584.0	2259.4	7495.8	9755.3

1. Reserves data are in millions of dollars, and have been adjusted for discontinuities.

2. 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



## Components of Money Stock and Related Measures

seasonally adjusted unless otherwise noted

DEC. 18, 1989

Period	Currency	Demand deposits	Other checkable deposits	Overnight RPs and Eurodollars NSA <sup>1</sup>	MMDAs NSA	Savings deposits	Small denomination time deposits <sup>2</sup>	Money market mutual funds, NSA		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>																
1986	179.4	294.5	229.1	77.9	569.1	361.8	859.5	207.6	84.7	440.8	82.6	81.0	89.8	280.5	229.8	37.5
1987	194.9	292.0	260.8	81.3	529.9	416.7	900.8	219.7	87.2	481.6	110.0	92.2	99.6	263.0	257.0	44.6
1988	210.7	288.4	280.9	76.7	505.6	430.8	1017.6	236.0	86.5	534.7	125.9	102.5	108.7	268.4	323.9	40.8
<b>MONTHLY</b>																
1988-NOV.	210.5	287.7	281.0	75.7	504.7	431.8	1017.8	237.4	87.4	534.4	128.3	101.6	108.7	264.5	323.7	40.5
DEC.	211.8	288.6	282.3	78.5	502.7	431.3	1025.2	239.4	87.6	537.8	124.1	105.8	109.1	271.3	335.8	40.6
1989-JAN.	213.4	284.0	281.3	81.9	495.2	427.8	1035.7	241.7	89.3	544.4	125.2	100.7	109.7	270.9	334.9	40.6
FEB.	214.3	284.8	280.9	79.0	485.3	424.6	1048.3	247.1	89.6	551.6	128.4	100.0	110.6	265.2	344.2	39.9
MAR.	215.6	284.3	279.1	77.5	480.3	420.8	1061.0	255.5	87.6	558.8	130.9	105.5	111.5	271.7	349.2	41.2
APR.	216.0	281.4	278.5	74.5	471.3	412.8	1083.1	259.3	87.7	567.7	128.8	101.3	112.3	278.1	359.5	41.4
MAY	216.5	278.2	271.4	73.5	457.0	404.7	1105.7	259.0	91.6	572.1	129.2	100.5	112.9	285.0	352.3	41.1
JUNE	217.3	275.0	270.7	76.0	456.9	402.0	1118.5	265.1	95.1	573.0	129.3	99.3	113.8	279.3	351.4	41.1
JULY	218.0	278.8	273.2	77.6	459.8	401.5	1126.3	274.5	98.2	573.1	124.5	99.7	114.6	283.0	351.3	42.0
AUG.	218.4	277.5	274.4	74.9	465.4	402.3	1132.1	285.5	100.6	569.1	118.0	97.6	115.2	290.7	355.3	42.7
SEP.	219.4	277.3	277.3	72.3	469.1	404.2	1132.6	294.8	99.1	563.7	113.7	93.8	115.7	307.4	348.0	41.3
OCT.	219.7	280.4	280.3	73.5	473.0	405.8	1132.0	301.5	98.7	560.9	110.3	90.4	116.1	318.4	352.2	39.4
NOV. p	220.3	278.9	283.3	72.5	482.1	409.4	1131.1	309.8	102.0	560.0	110.9	91.6				

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

December 18, 1989

**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	--	15,099	587	14,513	1,557
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
1989--February	-3,688	1,600	-5,288	--	-225	--	--	--	-225	40	-5,553	2,079
March	--	--	--	--	--	--	--	--	--	--	--	-856
April	3,077	--	3,077	172	1,436	286	284	--	2,179	125	-5,131	14,448
May	-10	1,200	-1,210	--	-75	--	--	--	-75	--	-1,285	-23,527
June	-571	1,200	-1,771	--	--	--	--	--	--	--	-1,771	10,002
July	-5,516	2,400	-7,916	--	-13	-9	--	--	-22	45	-7,983	-5,152
August	-934	800	-1,734	--	-150	--	--	--	-150	--	-1,884	617
September	--	--	--	--	--	--	--	--	--	54	54	3,641
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
Oct. 4	-151	--	-151	--	--	--	--	500	-500	--	-651	-689
11	-218	600	-818	--	--	--	--	--	--	--	-818	-4,431
18	-640	400	-1,040	--	-24	--	--	--	-24	--	-1,064	4,990
25	-625	400	-1,025	--	--	--	--	--	--	30	-1,055	-6,066
Nov. 1	219	--	219	--	--	--	--	--	--	--	219	5,662
8	3,258	3,530	-272	--	--	--	--	--	--	--	-272	-885
15	--	--	--	--	--	--	--	--	--	--	--	-507
22	663	--	663	155	--	--	--	--	155	--	818	2,573
29	233	--	233	--	--	--	--	--	--	--	233	10,349
Dec. 6	4,876	--	4,876	--	--	--	--	--	--	--	4,876	-13,117
13	947	--	947	--	--	--	--	--	--	--	947	4,000
Memo: LEVEL (bil.\$) <sup>6</sup> December 13	--	--	105.9	29.5	53.5	12.5	26.7	--	122.2	--	234.7	-1.4

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
2.1	3.2	1.0	0.2	6.5