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August 18, 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

August 18, 1989

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) Immediately after the July FOMC meeting, the borrowing objective was set at \$600 million, reflecting a slight easing of policy and also an upward technical adjustment to take account of unusually strong seasonal borrowing. Adjustment plus seasonal borrowing averaged \$581 million in the two maintenance periods completed in July, and, in line with the policy move, the federal funds rate edged down to around 9-1/4 percent after the FOMC meeting. The funds rate remained in that neighborhood until late in the month, when policy was eased further with a reduction in the borrowing objective to \$550 million, in the context of incoming data which continued to portray a softer economy and some lessening in inflationary pressures. Since then, federal funds have traded around 9 percent, but actual borrowing in the most recent complete maintenance period averaged \$621 million, boosted by a shortfall in reserves owing to an unexpectedly large Treasury balance on the last day of the period. Over the first eight days of the current period, borrowing has run at \$521 million on average. Seasonal credit continues strong, but is down a bit from its late-July levels of more than \$500 million, perhaps in response to the lower funds rate.

(2) During the past six weeks, market interest rates swung over a wide range in response to shifting perceptions about the state of the economy and the outlook for monetary policy, but most rates ended the period with only modest net changes. The easing of policy that occurred in July had been expected at the time of the last meeting. Nonetheless,

rates continued to decline through July as weaker-than-anticipated economic data were seen as portending additional policy steps. The 1/2 percentage point drop in the funds rate was accompanied by a somewhat larger decline in most private money market rates, and major banks cut their prime rate one-half percentage point to 10-1/2 percent. Long-term rates also fell. In early August, however, market sentiment changed on release of the July employment report. With various other economic indicators also showing some strengthening, the market's expectations of further near-term easing by the Federal Reserve were scaled back. The consequent backup in rates left long-term yields about where they were at the time of the last FOMC meeting and Treasury bill rates up about 1/4 percentage point on balance. Short-term private rates, however, remained down on balance, by roughly 30 basis points from their early-July levels. In equity markets, most major price indexes reached record highs during the intermeeting period, before dropping back some. Nevertheless, they retained increases of as much as 9 percent over the period.

(3) Unusually large changes in some interest rate spreads have occurred recently, related in part to supply effects stemming from the process of resolving troubled thrifts. In money markets, spreads between private and Treasury rates narrowed substantially. Bill supplies had been expected to rise markedly in the third quarter, after a huge paydown of bills in the second quarter, as the Treasury's needs for funding picked up. Passage of the thrift legislation, which called for the Treasury to funnel \$18.8 billion to the Resolution Trust Corporation (RTC) before the end of September, added to borrowing requirements in the bill market. In

long-term markets, however, the thrift situation has contributed to a widening of spreads between some obligations and Treasury issues. For example, the prospect of thrifts liquidating their \$14 billion in holdings of junk bonds to comply with the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA), along with a steady stream of new issuance and concerns about rising defaults, helped raise spreads in that market to their highest levels this decade. In secondary mortgage markets, there were some sizable sales of mortgage-backed securities by savings and loans, and the outlook for further sales by the industry was a factor keeping spreads about 50 basis points wider than earlier this year. This increase in spreads has fed through to an extent to the primary market for fixed-rate mortgages, where rates have fallen less than yields on comparable maturity Treasury issues this year. Over the same period, initial rates on adjustable-rate mortgages have not declined on balance, even as other short-term rates moved lower, as deep discounting of ARMs has become less popular.

(4) As with interest rates, exchange rates moved over a fairly wide range during the intermeeting period in response to release of economic data and associated actual or expected Federal Reserve monetary policy actions. On balance, the dollar's exchange value rose by 2-3/4 percent on a weighted-average basis in terms of other G-10 currencies. The recent strengthening of the dollar perhaps reflected a firming of real returns on dollar assets relative to previous expectations, based on better inflation news and a stronger economy, as well as improvement in the trade balance. The Desk sold a total of \$950 million against yen and

marks;

(5) Growth in the broader monetary aggregates accelerated in July and appears to have continued at a fairly strong pace into August. The rapid rebuilding of balances drawn down to meet April tax liabilities and the substantial narrowing of opportunity costs since the spring contributed to the pickup in money. M2 grew at a 12 percent annual rate last month, lifting it to the lower end of its target range. Growth in July was considerably above the 7 percent rate specified at the last FOMC meeting for the three months ending September. M3 growth was boosted by a pickup in bank credit and, at 9-1/4 percent, also exceeded the 7 percent rate the Committee expected for the June-to-September interval.

(6) Strength was especially evident in the liquid components of the aggregates, which earlier in the year had borne the brunt of the out-sized tax payments. Moreover, opportunity costs on these accounts dropped sharply through late July relative both to market instruments and to less liquid types of deposits. Transactions deposits rebounded in July, lifting M1 to a 10-1/2 percent rate of growth. Demand deposits grew at a 17 percent annual rate, boosted both by lower opportunity costs and by higher compensating balance requirements, while OCDs registered their first monthly increase this year.<sup>1</sup> Similarly, within nontransactions M2, the liquid components were responsible for the acceleration last month;

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1. With currency growth remaining subdued, the monetary base expanded at just a 4 percent annual rate, close to its average for the year to date, even as total reserves growth jumped to a 7-1/4 percent rate.

growth in small time deposits slowed substantially. The strength in overall M2 deposits last month held down depository institutions' needs for managed liabilities. Large time deposit issuance by banks increased only moderately, despite the more rapid rise in bank credit. At thrifts, sizable declines were posted in large time deposits and term RPs in M3, as well as in FHLB advances, likely signalling a further contraction in their assets last month.

(7) The debt of domestic nonfinancial sectors appears to have grown in July at about the reduced 7 percent rate of June. Business borrowing strengthened as C&I loans at banks increased at better than a 15 percent rate. The turnaround in loans more than offset lower borrowing in other markets: net issuance of commercial paper by nonfinancial firms came to a halt last month, and corporate bond issuance slowed from its rapid May-June pace as the decline in long-term rates stalled. Available information on household debt suggests no sharp deviations from the recent growth paths of either mortgage or consumer credit. Real estate loan growth at banks increased a bit in July from its first-half pace, but the June mortgage commitment data from thrifts showed a downturn. Municipal and federal borrowing in July appears to have been quite subdued. The federal government continued to benefit from the large size of the April tax payments and financed its deficit last month by drawing on its cash balance. Over the remainder of the third quarter, however, the Treasury's funding needs are set to grow rapidly, boosted by the \$18.8 billion called for by FIRREA. Already, a \$15 billion 247-day cash management bill has been issued, in part to finance RTC's initial operations. Through July,

overall domestic nonfinancial debt grew at about a 7-3/4 percent annual rate from its fourth-quarter base, leaving it in the lower portion of its 6-1/2 to 10-1/2 percent monitoring range.

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

	May	June	July	QIV '88 to July
<u>Money and credit aggregates</u>				
M1	-15.0	-4.3	10.4	-1.9
M2	-3.6	6.1	12.1	3.0
M3	-1.5	5.5	9.3	4.0
Domestic nonfinancial debt	7.6	6.9	7.1	7.8
Bank credit	7.5	5.0	10.0	6.8
<u>Reserve measures</u>				
Nonborrowed reserves <sup>1</sup>	-13.5	-9.1	7.0	-5.4
Total reserves	-14.6	-8.0	7.2	-5.2
Monetary base	-1.5	3.1	4.0	3.0
Memo: (Millions of dollars)				
Adjustment plus seasonal borrowing	523	573	588	--
Excess reserves	1031	905	972	--

1. 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

(8) Three alternatives are presented below for Committee consideration. Alternative B involves federal funds continuing to trade mostly in a 9 to 9-1/8 percent range and adjustment plus seasonal borrowing at the discount window remaining at \$550 million. Under alternative A, a funds rate of 8-1/2 to 8-5/8 percent would be expected to be associated with borrowing of \$450 million, while under alternative C, a funds rate of 9-1/2 to 9-5/8 percent would accompany borrowing of \$650 million. As is apparent, the alternatives incorporate a rule of thumb of 50 basis points on the funds rate for each \$100 million change in adjustment plus seasonal borrowing, implying discount borrowing behavior that is only half as responsive as that embodied in the traditional rule of thumb. This reduced sensitivity stems in part from the very low and largely frictional levels of adjustment borrowing that would be consistent with any of these funds rates. Consequently, the bulk of borrowing is likely to remain seasonal credit. Under alternative A, seasonal credit would have to drop significantly from current levels. Such credit is sensitive to the spread between the funds rate and the discount rate, though less so than adjustment credit has been historically. Abstracting from interest-spread effects, seasonal borrowing, which reached record levels in late July, is likely to begin to move lower later in the intermeeting period. But with seasonal credit showing surprising strength and adjustment credit inexplicably weak, the outlook for borrowing remains uncertain, suggesting continued flexibility by the Desk in its approach to the borrowing objective.

(9) Markets still seem to expect a slight easing of policy over the months ahead. The stability of the funds rate around the current level under alternative B, especially if combined with incoming economic data in line with the greenbook forecast of sustained economic growth, would raise further doubts in securities markets about the likelihood of such an easing. The alteration of market perceptions about future policy moves may induce a small rise in private money market rates. Treasury bill rates already have adjusted upward relative to private short-term rates in reflection of actual and near-term heavy supply. Thus, they could edge up by less than private rates--to the 8 percent level--as the recent surge in bill issuance recedes after the initial RTC funding is completed. Intermediate- and long-term yields could move up over coming months, though by limited amounts should inflation remain moderate in line with the staff forecast. Supported by slightly higher market rates, strength in the dollar on foreign exchange markets could persist, at least for a time.

(10) Alternative A's policy easing likely would engender general declines in market yields. A 50 basis point reduction in the trading range for federal funds would come more promptly, and be larger, than the easing currently built into the structure of interest rates. Money market interest rates could drop 1/4 percentage point or so--and somewhat more if the action itself fostered the notion that the Federal Reserve would be inclined to undertake additional steps to loosen reserve pressure in the months ahead. A rally in bond markets also would seem probable, especially because inflation concerns do not now seem to be weighing on market

psychology; however, should spending prove reasonably strong, there is some risk that such concerns would be reignited against the background of the further easing of policy in alternative A. Some downward adjustment to the exchange value of the dollar also could occur since foreign authorities would be unlikely to follow up with comparable easing actions in light of inflationary pressures abroad.

(11) Under alternative C, market interest rates would back up abruptly, given that the Federal Reserve policy tightening would come as a surprise. Increases in short rates by more than the 1/2 percentage point rise in the funds rate could well occur, as market participants reassessed not only current but also future money market conditions in light of a more restrictive policy stance than they anticipated. The advance in bond yields probably would be more restrained in view of the implications of higher short-term rates for future economic activity and inflation. Such monetary policy tightening would result in some additional upward pressure on the dollar.

(12) Growth of the monetary aggregates from June to September expected to be associated with the three policy alternatives is given in the table below. (More detailed data are shown on the table and charts on subsequent pages.) With only six weeks left in the quarter, most of the effects of the various money market conditions associated with the alternatives would be felt in the fourth quarter; money growth over the June-to-September period differs relatively little across the three alternatives, with M2 rising well into the lower half of its annual range by September, while M3 edges up a little further in the lower half of its

range. Growth of the aggregates will be supported by continued expansion in nominal income around its recent pace and by the declines in opportunity costs of monetary assets since March. Nevertheless, M2 and M3 are projected to slow over the remainder of the third quarter as the restocking of balances depleted earlier by tax payments is completed and as the resolution of the thrift crisis depresses retail deposits and managed liabilities at S&Ls. In the staff greenbook forecast, the resolution is not expected to have a material impact on mortgage activity, residential construction, and GNP expansion more generally, but the particular approach taken by the RTC will affect the money growth rates associated with a given path for the economy. However, the impact of the resolution on the aggregates seems rather difficult to predict with any precision, in part because it depends on policies yet to be fully specified.

	<u>Alt. A</u>	<u>Alt. B</u>	<u>Alt. C</u>
Growth from June to September			
M2	9-1/2	9	8-1/2
M3	7	6-3/4	6-1/2
M1	4-1/2	4	3-1/2
Associated federal funds rate range	7 to 11	7 to 11	7 to 11

(13) Although passage of thrift legislation should bolster depositor confidence and forestall some thrift deposit outflows, the substitution of RTC funds (not in the aggregates) for deposits and other liabilities, along with discouragement of asset expansion at thrifts, are

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 April	3080.0	3080.0	3080.0	3956.9	3956.9	3956.9	783.1	783.1	783.1
May	3070.7	3070.7	3070.7	3951.9	3951.9	3951.9	773.3	773.3	773.3
June	3086.3	3086.3	3086.3	3969.9	3969.9	3969.9	770.5	770.5	770.5
July	3117.4	3117.4	3117.4	4000.7	4000.7	4000.7	777.2	777.2	777.2
August	3139.0	3139.0	3139.0	4020.7	4020.7	4020.7	776.5	776.5	776.5
September	3158.9	3155.0	3151.1	4038.8	4036.8	4034.8	779.0	778.0	777.0
Monthly Growth Rates									
1989 April	0.7	0.7	0.7	2.2	2.2	2.2	-4.9	-4.9	-4.9
May	-3.6	-3.6	-3.6	-1.5	-1.5	-1.5	-15.0	-15.0	-15.0
June	6.1	6.1	6.1	5.5	5.5	5.5	-4.3	-4.3	-4.3
July	12.1	12.1	12.1	9.3	9.3	9.3	10.4	10.4	10.4
August	8.3	8.3	8.3	6.0	6.0	6.0	-1.1	-1.1	-1.1
September	7.6	6.1	4.6	5.4	4.8	4.2	3.9	2.3	0.8
Quarterly Ave. Growth Rates									
1988 Q3	3.8	3.8	3.8	5.6	5.6	5.6	5.2	5.2	5.2
Q4	3.6	3.6	3.6	4.8	4.8	4.8	2.3	2.3	2.3
1989 Q1	1.8	1.8	1.8	3.7	3.7	3.7	-0.4	-0.4	-0.4
Q2	1.0	1.0	1.0	2.8	2.8	2.8	-5.6	-5.6	-5.6
Q3	7.7	7.5	7.4	6.1	6.0	6.0	1.0	0.8	0.7
Mar. 89 to June 89	1.1	1.1	1.1	2.1	2.1	2.1	-8.0	-8.0	-8.0
June 89 to Sept. 89	9.4	8.9	8.4	6.9	6.7	6.5	4.4	3.9	3.4
July 89 to Sept. 89	8.0	7.2	6.5	5.7	5.4	5.1	1.4	0.6	-0.1
Q4 88 to Q2 89	1.4	1.4	1.4	3.3	3.3	3.3	-3.0	-3.0	-3.0
Q4 88 to Q3 89	3.6	3.5	3.4	4.2	4.2	4.2	-1.7	-1.7	-1.8
Q4 88 to July 89	3.0	3.0	3.0	4.0	4.0	4.0	-1.9	-1.9	-1.9
Q4 88 to Aug. 89	3.6	3.6	3.6	4.3	4.3	4.3	-1.9	-1.9	-1.9
Q4 88 to Sept. 89	4.0	3.8	3.7	4.4	4.3	4.3	-1.3	-1.4	-1.6
1989 Target Ranges:	3.0 to 7.0			3.5 to 7.5					

Chart 1  
**ACTUAL AND TARGETED M2**

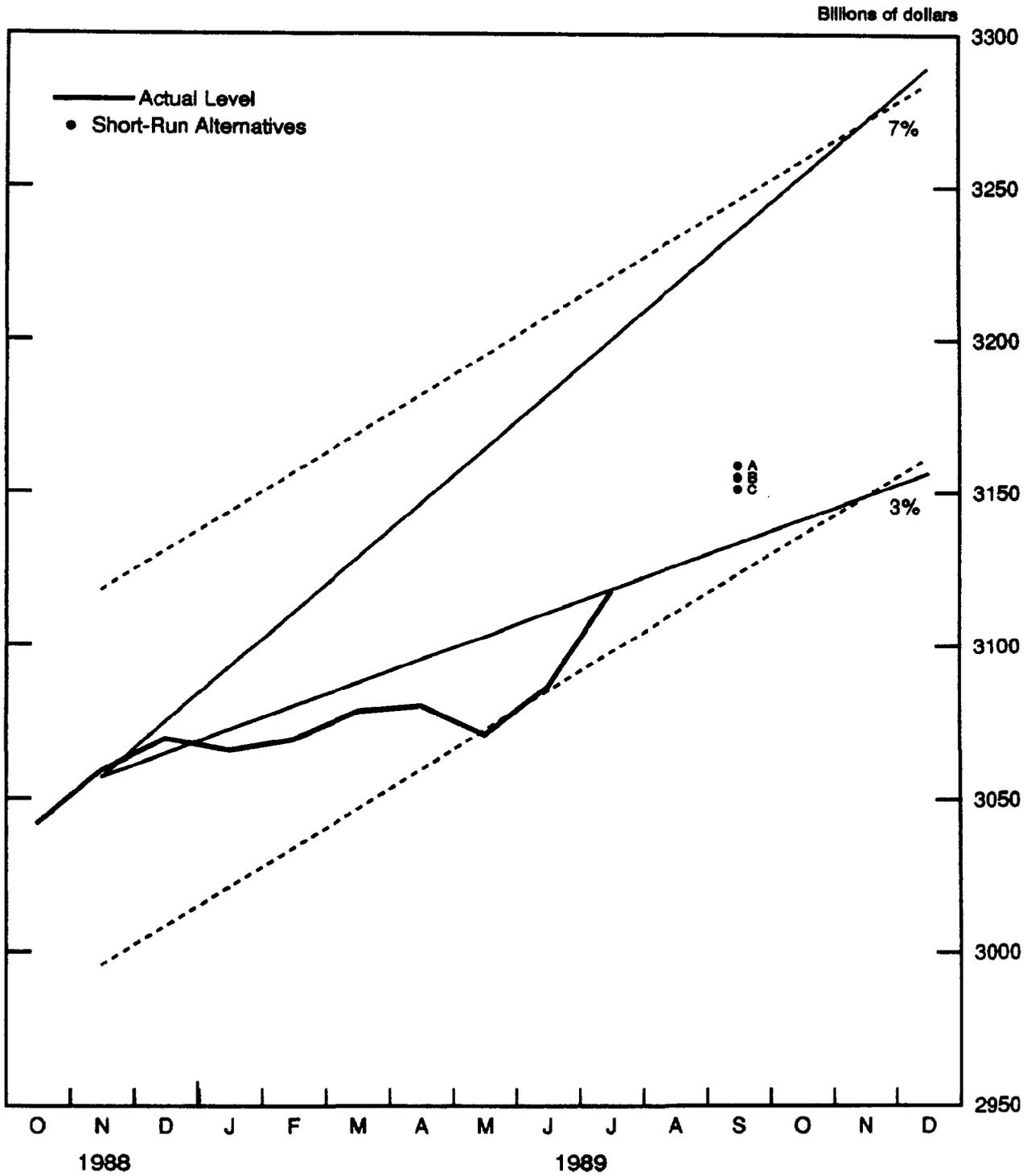


Chart 2  
ACTUAL AND TARGETED M3

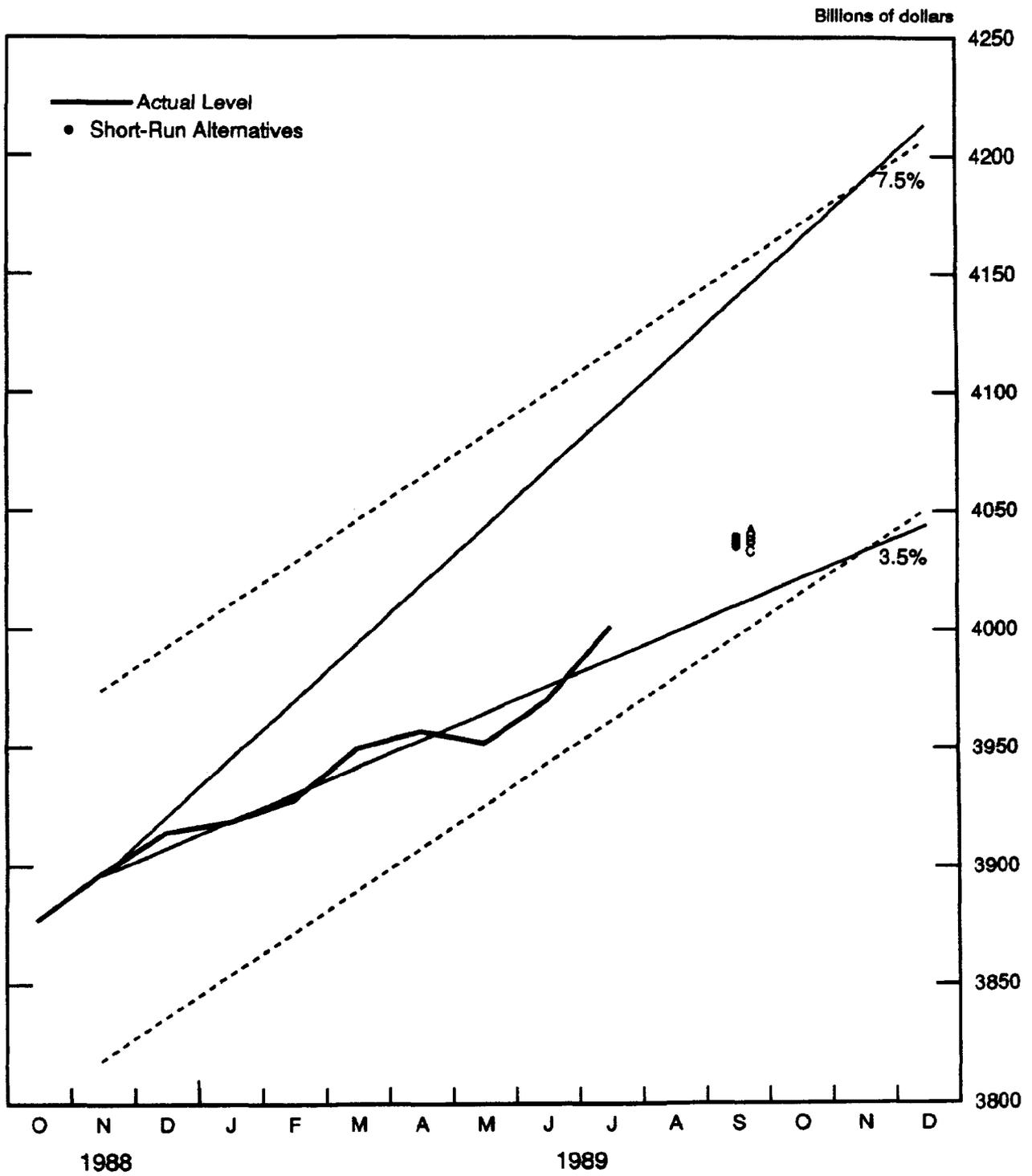


Chart 3  
M1

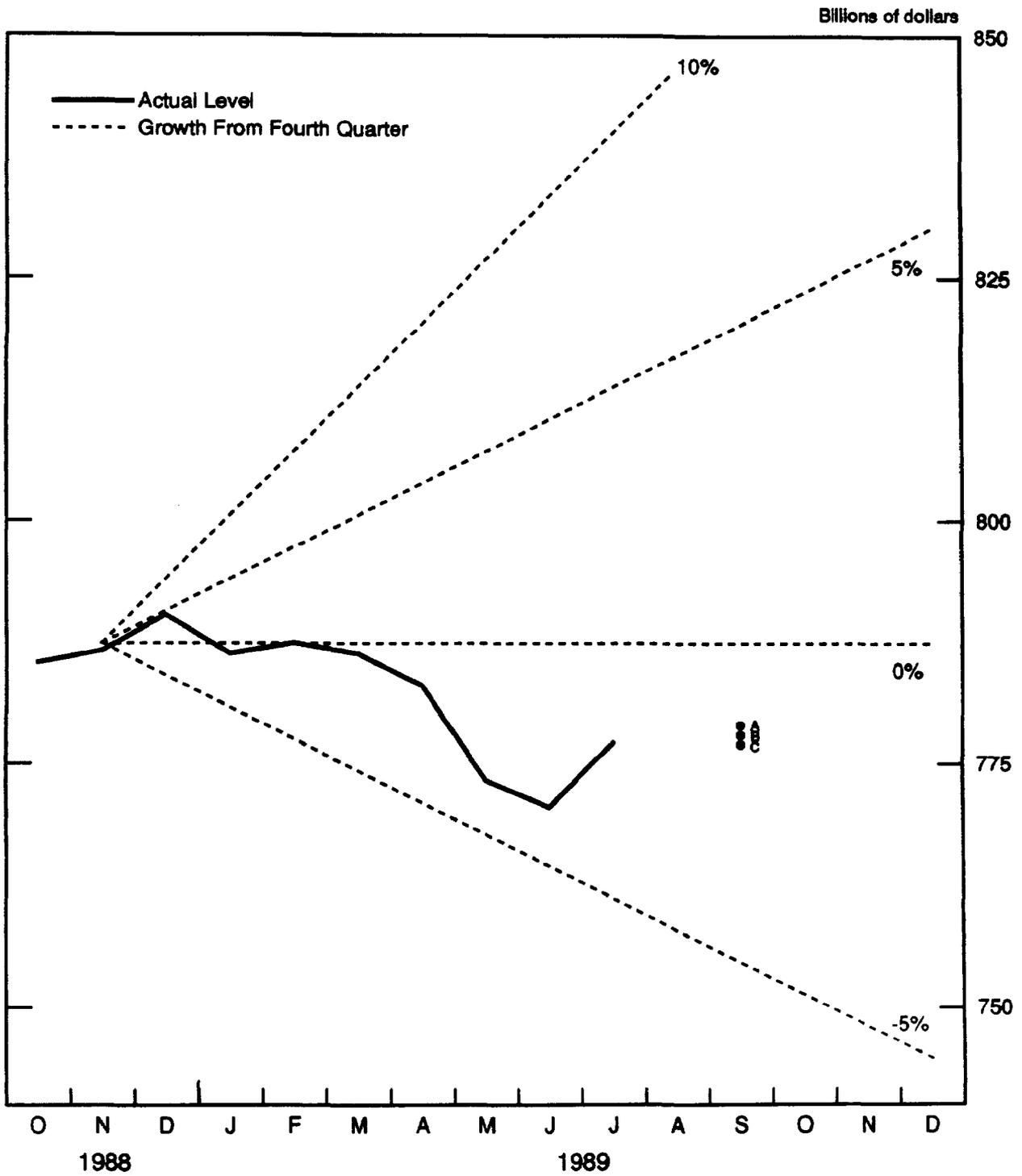
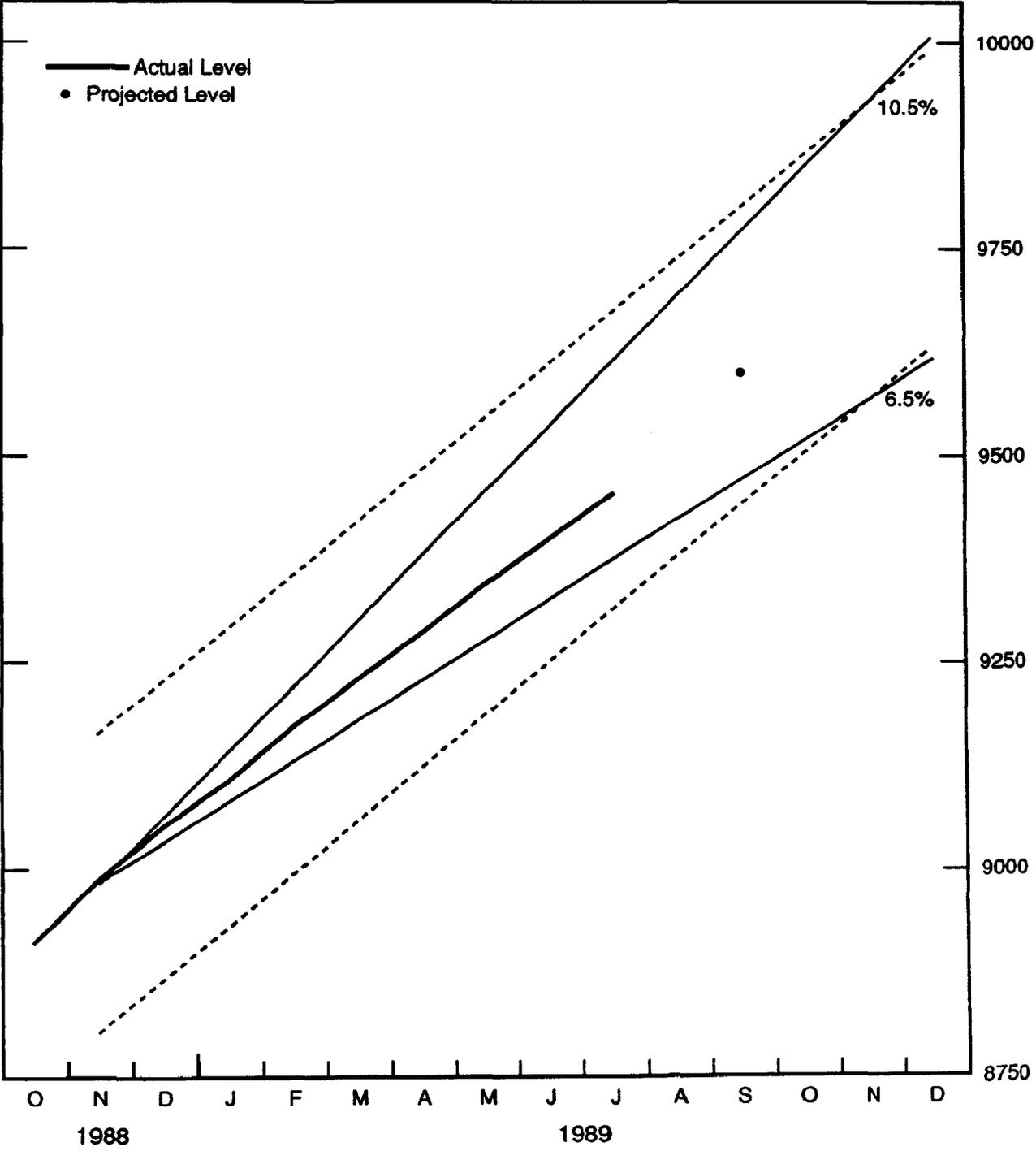


Chart 4  
DEBT

Billions of dollars



expected on balance to damp growth of the broader aggregates.<sup>2</sup> The restraining effect might be particularly evident in the period just ahead owing to the inducement for the RTC to spend \$20 billion by the end of September. Most of those funds are likely to replace current S&L liabilities, with particular focus on high-yielding liabilities. With respect to M2, premia on offering rates on small time deposits at insolvent thrifts should decline, with a more general softening of deposit rates possible at both banks and thrifts as competitive pressures become less intense.<sup>3</sup> In response to the higher opportunity costs on deposits, some portion of the funds withdrawn is likely to be transferred by the public into investments outside M2. This would be particularly true of brokered deposits, which often are of high denomination (\$80,000 to \$100,000) and may be held by especially rate-sensitive investors. Partly as a consequence, M2 growth under alternative B is projected to slow from around 8 percent in August to 6 percent in September, with the resolution impact accounting for perhaps as much as 1 percentage point of the moderation. Moreover, the rebound in market rates since their lows in late July has widened opportunity costs, which will also tend to damp M2 growth.

(14) The influence of the legislation on M3 will be considerably larger. Those government funds not substituting for M2 liabilities will

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2. In addition to outright deposit payouts, RTC will use its resources to make advances or deposits at operating insolvent institutions; the staff presumes that even in the case of deposits these liabilities will not be counted in the monetary aggregates.

3. Depositories purchasing the deposits of liquidated thrifts apparently will have the right to lower rates on the acquired deposits to the passbook savings rate. Thrifts under conservatorship, but not yet liquidated, will be discouraged from offering above-market rates; this is likely to have its most important effect on brokered deposits, which usually are included in the small-time category.

be available to substitute for managed liabilities, including those in M3. Moreover, assets held by insolvent thrifts will decline as these institutions are liquidated or pared in size by RTC conservators; some assets will be sold into markets and others may be acquired by the RTC, which would fund them from non-M3 sources. Tighter capital requirements and more restrictive asset standards also should hold down asset expansion at other thrifts, whose sales of mortgage-backed securities may begin to be supplemented by sales of junk bonds.<sup>4</sup> While thrift RPs and large time deposits should continue to decline, some of the reduction in managed liabilities at thrifts will take the form of repayments of FHLB advances and other non-M3 borrowing, muting the decline in M3.<sup>5</sup> Moreover, responding to the higher spreads on mortgages, banks are likely to absorb a portion of thrift assets, boosting their needs for funds. On balance, the thrift situation is projected to damp M3 growth by about 2 percentage points in September to 5 percent under alternative B.

(15) In the fourth quarter, if short-term interest rates remain around current levels, as in the staff economic forecast, M2 growth is seen at a 6-1/2 percent rate, a little above the projected pace of nominal GNP. For the quarter, the impact on velocity of the lower offering rates associated with the thrift resolution process is assumed about to offset the effects of earlier declines in market rates. Growth of M2 for the year would come to about 4-1/4 percent, damped only slightly by the

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4. On balance, the staff expects a decline in total thrift assets over the rest of the year.

5. Certain provisions of FIRREA, removing the supervisory role of FHLBs and tightening collateral requirements and the purpose of advances, may prompt these institutions to become more restrictive in lending. Should this occur, M3 would be damped less than assumed by the staff.

accelerated thrift resolution. However, the effect on annual growth of M3 may be as large as 1/2 percentage point. Growth in this aggregate in the fourth quarter is projected to remain close to its 5 percent September pace, bringing its advance for the year to 4-1/2 percent.

(16) Growth of the debt of domestic nonfinancial sectors is projected to strengthen to a 9 percent pace over August and September, before moderating to 8 percent over the fourth quarter. For August and September, the federal component will be boosted by the initial financing of thrift resolution spending; after September this spending will be financed off-budget by REFCORP, which is not included in the debt measure. Outside the federal sector, debt growth is expected to slow somewhat in September after being augmented in July and August by corporate restructuring activity. Over the fourth quarter debt of nonfederal borrowers is projected to increase at around the 8 percent pace of the first half of the year. Growth for the year of the total debt measure is projected at 8-1/4 percent, with about 1/4 percentage point of this total accounted for by the additional federal borrowing associated with the on-budget thrift financing.

(17) Alternative C, by widening opportunity costs on liquid balances, would tend to retard M2 growth to a 4-1/2 percent rate in September. If rates remained at the higher level associated with this alternative, little pickup in M2 growth would be anticipated in the fourth quarter, despite the waning impact of the effects of the thrift resolution. For the year, M2 likely would grow at a 3-3/4 percent rate. The lower interest rates of alternative A could boost M2 growth to a 7-1/2

percent rate in September, and, with comparable growth in the fourth quarter, to 4-3/4 percent for the year. By contrast, with both M3 and debt much less responsive to variations in short-term rates, their annual growth rates are unlikely to differ appreciably from those consistent with the flat interest rates in the staff forecast.

Directive Language:

(18) Shown below is a draft of the operational paragraph with the standard options, including the existing ordering and wording of the factors that could prompt an intermeeting adjustment in reserve pressures.

(19) As the members will recall, the Committee was polled shortly after the July meeting regarding preferences for the ordering and wording of the factors bearing on intermeeting adjustments. A majority indicated at that time that they wanted to continue to give first priority to price developments, but a significant minority proposed moving the reference to business conditions up to the top of the list. Several commented on the placement of the monetary aggregates in the listing; three indicated that they would move the aggregates up to first or second place, but four expressed strong reservations about giving them greater prominence, including two who wanted to move them to the bottom of the list. With regard to particular wording, a number suggested substituting a reference to "progress toward price stability" for the current "indications of inflationary pressures".

OPERATIONAL PARAGRAPH

In the implementation of policy for the immediate future, the Committee seeks to decrease slightly (SOMEWHAT)/ MAINTAIN/INCREASE SOMEWHAT the existing degree of pressure on reserve positions. Taking account of indications of inflationary pressures, the strength of the business expansion, the behavior of the monetary aggregates, and developments in

foreign exchange and domestic financial markets, somewhat (SLIGHTLY) greater reserve restraint (WOULD) (MIGHT) or somewhat (SLIGHTLY) 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 at annual rates of about 7 \_\_ AND \_\_ 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 7 to 11 \_\_ TO \_\_ percent.

SELECTED INTEREST RATES  
(percent)

	Short-Term								Long-Term							
	Treasury bills secondary market				U.S. Gov't. constant maturity yields				conventional home mortgages							
	federal funds	3 month	6 month	12 month	cds sec mkt 3-month	comm. paper 1-month	money market mutual fund	bank prime loan	3-year	10-year	30-year	corp. A utility rec off	muni. Bond Buyer	sec mkt fixed- rate	primary fixed- rate	market ARM
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	9.07	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	8.95	7.75	7.75	7.16	8.43	8.64	8.28	10.50	7.60	7.82	7.92	9.45	7.19	9.92	9.68	8.53
Monthly																
AUG 88	8.01	7.06	7.39	7.59	8.35	8.09	7.06	9.84	8.77	9.26	9.32	10.45	8.16	10.87	10.60	8.01
SEP 88	8.19	7.24	7.43	7.53	8.23	8.09	7.40	10.00	8.57	8.98	9.06	10.26	7.96	10.62	10.48	8.14
OCT 88	8.30	7.35	7.50	7.54	8.36	8.12	7.50	10.00	8.43	8.80	8.89	10.11	7.78	10.41	10.30	8.12
NOV 88	8.35	7.76	7.86	7.87	8.78	8.38	7.64	10.05	8.72	8.96	9.02	10.12	7.80	10.56	10.26	8.15
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	10.64	8.64
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	9.39
MAY 89	9.81	8.43	8.41	8.31	9.59	9.58	9.13	11.50	8.98	8.86	8.83	10.09	7.51	10.90	10.77	9.29
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	8.73
Weekly																
MAY 3 89	9.88	8.51	8.54	8.50	9.82	9.70	9.14	11.50	9.20	9.07	8.95	10.26	7.62	11.09	10.97	9.36
MAY 10 89	9.86	8.49	8.47	8.41	9.76	9.69	9.14	11.50	9.14	9.08	9.03	10.13	7.64	10.89	10.93	9.36
MAY 17 89	9.75	8.28	8.31	8.22	9.56	9.54	9.15	11.50	8.92	8.87	8.88	10.03	7.38	10.86	10.69	9.28
MAY 24 89	9.74	8.34	8.35	8.20	9.41	9.46	9.13	11.50	8.83	8.66	8.67	9.94	7.38	10.77	10.50	9.18
MAY 31 89	9.84	8.56	8.43	8.25	9.45	9.51	9.11	11.50	8.83	8.64	8.63	9.80	7.43	10.52	10.48	9.21
JUN 7 89	9.68	8.31	8.06	7.93	9.27	9.42	9.08	11.29	8.48	8.41	8.46	9.63	7.28	10.28	10.20	9.09
JUN 14 89	9.35	8.16	7.83	7.77	9.08	9.25	8.94	11.00	8.30	8.21	8.19	9.70	7.27	10.47	10.04	8.95
JUN 21 89	9.48	8.13	8.00	7.93	9.25	9.33	8.88	11.00	8.47	8.35	8.31	9.59	7.42	10.42	10.19	9.00
JUN 28 89	9.58	8.08	7.92	7.83	9.23	9.35	8.88	11.00	8.33	8.22	8.18	9.49	7.34	10.26	10.07	8.92
JUL 5 89	9.58	7.92	7.68	7.53	9.09	9.31	8.85	11.00	8.04	8.11	8.09	9.54	7.32	10.14	10.03	8.85
JUL 12 89	9.31	7.75	7.50	7.35	8.83	9.01	8.75	11.00	7.83	8.02	8.05	9.57	7.27	10.19	9.82	8.73
JUL 19 89	9.24	7.87	7.67	7.39	8.73	8.91	8.65	11.00	7.87	8.06	8.11	9.60	7.26	10.20	9.87	8.72
JUL 26 89	9.14	8.05	7.71	7.43	8.74	8.93	8.59	11.00	7.85	8.03	8.13	9.45	7.26	9.92	9.81	8.64
AUG 2 89	8.95	7.76	7.44	7.16	8.43	8.64	8.47	10.79	7.60	7.82	7.92	9.54	7.19	10.23	9.68	8.60
AUG 9 89	8.98	7.86	7.62	7.46	8.50	8.70	8.32	10.50	7.92	7.98	8.05	9.56	7.31	10.36	9.96	8.62
AUG 16 89	9.04	7.97	7.74	7.66	8.68	8.84	8.32	10.50	8.15	8.14	8.15	9.55	7.39	10.47	10.09	8.69
Daily																
AUG 11 89	9.00	7.96	7.67	7.61	8.49	8.77	..	10.50	8.10	8.09	8.13	..	..	..	..	..
AUG 17 89	8.95	7.80	7.43	7.73	8.72	8.84	..	10.50	8.22	8.18	8.16	..	..	..	..	..
AUG 18 89	8.92p	7.86	7.86	7.70	8.80	8.86	..	10.50	8.23p	8.15p	8.15p	..	..	..	..	..

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.

## Money and Credit Aggregate Measures

Seasonally adjusted

AUG. 21, 1989

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>										
1986	15.6	9.3	7.3	8.2	9.1	8.2	9.7	14.7	13.0	13.4
1987	6.4	4.2	3.5	11.7	5.7	5.5	8.0	9.0	10.1	9.8
1988	4.3	5.2	5.5	10.2	6.2	7.1	7.6	8.0	9.2	8.9
<b>QUARTERLY AVERAGE</b>										
1988-3rd QTR.	5.2	3.8	3.3	12.2	5.6	7.1	8.0	7.1	9.1	8.6
1988-4th QTR.	2.3	3.6	4.1	9.1	4.8	5.4	6.2	7.8	9.5	9.1
1989-1st QTR.	-0.4	1.8	2.6	10.4	3.7	4.8	6.3	7.7	8.4	8.2
1989-2nd QTR.	-5.6	1.0	3.3	9.1	2.8	3.6	6.2	6.6	7.8	7.5
<b>MONTHLY</b>										
1988-JULY	9.3	4.3	2.6	17.8	7.1	11.7	8.1	5.5	9.1	8.3
AUG.	-0.2	2.3	3.2	9.1	3.8	4.9	7.6	9.9	8.8	9.0
SEP.	2.0	2.1	2.1	6.0	2.9	2.1	2.0	11.9	8.1	9.0
OCT.	2.6	2.8	2.9	13.8	5.2	5.4	10.1	5.1	9.5	8.5
NOV.	1.8	6.7	8.5	4.2	6.2	6.7	5.1	6.8	11.3	10.3
DEC.	5.6	4.0	3.4	10.0	5.3	9.5	3.5	7.7	8.7	8.5
1989-JAN.	-6.1	-1.4	0.1	11.6	1.3	0.9	3.1	4.7	8.1	7.3
FEB.	1.7	1.4	1.3	8.2	2.9	3.1	14.4	10.2	8.1	8.6
MAR.	-1.7	3.5	5.3	17.5	6.6	8.9	6.4	12.4	5.9	7.5
APR.	-4.9	0.7	2.6	7.6	2.2	4.3	2.9	5.1	7.9	7.2
MAY	-15.0	-3.6	0.3	5.9	-1.5	-1.2	7.5	2.9	9.1	7.6
JUNE	-4.3	6.1	9.6	3.3	5.5	0.7	5.0	3.1	8.0	6.9
JULY p	10.4	12.1	12.6	-0.4	9.3		10.0	0.2	9.2	7.1
<b>LEVELS (\$BILLIONS) :</b>										
<b>MONTHLY</b>										
1989-MAR.	786.3	3078.2	2291.9	871.4	3949.6	4725.2	2464.9	2162.6	7066.7	9229.4
APR.	783.1	3080.0	2296.9	876.9	3956.9	4742.2	2470.9	2171.8	7113.3	9285.1
MAY	773.3	3070.7	2297.4	881.2	3951.9	4737.4	2486.3	2177.0	7167.1	9344.0
JUNE	770.5	3086.3	2315.8	883.6	3969.9	4740.0	2496.8	2182.7	7214.7	9397.4
JULY p	777.2	3117.4	2340.2	883.3	4000.7		2518.3	2183.1	7270.0	9453.0
<b>WEEKLY</b>										
1989-JULY 3	777.0	3097.2	2320.1	888.6	3985.8					
10	778.8	3114.2	2335.3	886.9	4001.1					
17	777.2	3118.6	2341.4	884.8	4003.3					
24	775.9	3117.0	2341.1	881.7	3998.7					
31 p	775.7	3127.5	2351.8	877.7	4005.2					
AUG. 7 p	778.7	3132.4	2353.7	879.0	4011.3					

monthly average basis, derived by averaging end-of-month levels of adjacent months, and have been adjusted to remove

## Components of Money Stock and Related Measures

seasonally adjusted unless otherwise noted

AUG. 21, 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>4</sup>	Term RPs NSA <sup>3</sup>	Term Eurodollars NSA <sup>3</sup>	Savings bonds	Short-term Treasury securities	Commercial paper <sup>3</sup>	Bankers acceptances
								general purpose and broker/dealer <sup>3</sup>	institutions only							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>LEVELS (\$BILLIONS) :</b>																
<b>ANNUALLY (4TH QTR.)</b>																
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	282.5	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	266.0	257.0	44.6
1988	210.7	288.4	280.9	76.6	505.6	430.8	1017.6	236.0	86.5	534.7	125.1	102.5	108.7	272.3	323.9	40.8
<b>MONTHLY</b>																
1988-JULY	206.4	290.4	278.5	77.6	522.0	429.7	981.0	229.6	84.8	514.0	125.6	97.1	106.8	268.7	309.8	40.7
AUG.	207.0	289.9	278.3	79.9	517.7	430.9	988.3	230.8	84.0	519.4	123.8	102.8	107.4	272.6	311.3	41.2
SEP.	208.6	288.8	279.0	77.3	511.4	430.5	998.7	231.0	83.7	526.7	122.3	102.8	107.9	272.8	308.8	41.7
OCT.	209.7	288.9	279.4	76.0	507.5	429.2	1009.7	231.3	84.6	532.0	124.7	100.2	108.4	273.3	312.3	41.3
NOV.	210.5	287.7	281.0	75.6	506.7	431.8	1017.8	237.4	87.4	534.4	127.5	101.6	108.7	268.4	323.7	40.5
DEC.	211.8	288.6	282.3	78.3	502.7	431.3	1025.2	239.4	87.6	537.8	123.1	105.8	109.1	275.2	335.8	40.6
1989-JAN.	213.4	284.0	281.3	81.7	495.2	427.8	1035.7	241.7	89.3	544.5	124.1	100.5	109.7	274.5	334.9	40.6
FEB.	214.3	284.8	280.9	78.8	485.3	424.6	1048.3	247.2	89.6	551.7	127.1	100.1	110.6	267.8	344.2	39.9
MAR.	215.6	284.3	279.1	77.2	480.3	420.8	1061.0	255.5	87.6	558.9	129.4	106.0	111.5	273.7	349.2	41.2
APR.	215.9	281.4	278.5	73.8	471.3	412.9	1083.1	259.1	87.7	567.8	127.0	101.8	112.3	277.4	354.2	41.5
MAY	216.4	278.2	271.3	72.1	457.0	404.7	1105.7	258.9	91.6	572.3	127.2	101.0	112.9	278.0	353.5	41.1
JUNE	217.4	275.0	270.9	74.0	456.9	402.1	1118.6	265.1	95.1	573.2	126.9	99.7	113.8	264.7	350.5	41.2
JULY p	217.9	278.9	273.2	78.0	459.6	401.4	1126.1	274.6	98.2	574.0	120.9	100.0				

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

August 21, 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 <sup>4</sup>	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					
1983	15,468	2,400	13,068	484	1,896	890	383	87	3,566	292	16,342	-5,445
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	2,200	3,842	-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
1989--January	-154	600	-754	--	-3	-20	--	--	-23	148	-925	-6,813
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	-5,517	2,400	-7,917	22	--	--	--	--	22	45	-7,984	-5,152
May 3	2,734	--	2,734	--	--	--	--	--	--	--	2,734	4,511
10	179	--	179	--	--	--	--	--	--	--	179	-165
17	--	--	--	--	--	--	--	--	--	--	--	-12,088
24	-183	600	-783	--	-75	--	--	--	-75	--	-858	-7,774
31	-137	600	-737	--	--	--	--	--	--	--	-737	-327
June 7	-571	600	-1,171	--	--	--	--	--	--	--	-1,171	1,811
14	--	600	-600	--	--	--	--	--	--	--	-600	4,078
21	--	--	--	--	--	--	--	--	--	--	--	2,508
28	--	--	--	--	--	--	--	--	--	--	--	900
July 5	-113	--	-113	--	-9	--	--	--	-9	--	-122	-6,581
12	-255	600	-855	--	--	--	--	--	--	--	-855	10,832
19	-4,710	600	-5,310	--	-13	--	--	--	-13	--	-5,323	-9,202
26	-127	600	-727	--	--	--	--	--	--	45	-772	815
August 2	-462	600	-1,062	--	--	--	--	--	--	--	-1,062	590
9	-150	400	-550	--	--	--	--	--	--	--	-550	1,914
16	-230	400	-630	--	-150	--	--	--	-150	--	-780	-432
Memo: LEVEL (bil.\$) <sup>6</sup> August 16	--	--	102.7	31.1	51.8	13.1	26.5	--	122.5	--	231.9	-5.7

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	3.3	1.0	.2	6.6