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MONETARY POLICY ALTERNATIVES

Prepared for the Federal Open Market Committee

By the staff Board of Governors of the Federal Reserve System

September 27, 1991

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) In the weeks immediately after the August FOMC meeting, the Desk sought to maintain existing reserve pressures, basing reserve targets initially on an allowance for adjustment plus seasonal borrowing of \$375 million and expecting federal funds to continue to trade around 5-1/2 percent. Through September 12, the federal funds rate averaged around that level, while the borrowing allowance was reduced to \$300 million in two technical adjustments, reflecting an abatement of seasonal borrowing needs. On September 13, the Board lowered the discount rate to 5 percent in response to weakness in the monetary and credit aggregates, the improving inflation environment, and concerns about the strength of the economic expansion. Accompanying that action, the federal funds rate was expected to decline to around 5-1/4 percent, with the borrowing allowance increased to \$325 million to reflect the partial pass-through of the discount rate cut. Through the first eight days of the current maintenance period, federal funds have averaged 5.31 percent, and borrowing \$341 million.¹

(2) Market interest rates rose slightly in the days after the August meeting, reflecting both the absence of an immediate policy easing and the strong durable goods report.² Rates declined in subsequent weeks, however, as incoming nonfinancial and monetary

1. In the two complete maintenance periods since the August meeting, adjustment plus seasonal borrowing averaged about \$360 million, including \$46 million of special situation borrowing.

2. Treasury bill rates rose substantially over these days as the flight to quality and liquidity prompted by the coup attempt in the Soviet Union unwound.

indicators were seen as increasing the likelihood of a sluggish expansion, damped inflation, and an early move toward an easing of policy. With data seen as still somewhat on the soft side, rates have continued to drift lower since the mid-September easing. On balance over the intermeeting period, private short-term market rates are down 10 to 20 basis points, and intermediate- and long-term rates are off about 1/4 percentage point.³ The prime rate was reduced by 1/2 percentage point to 8 percent subsequent to the policy action, but it remains high relative to the cost of bank funding. The average commitment rate on fixed-rate mortgages fell to 8.92 percent, its lowest level since 1977, stimulating substantial refinancing activity. Broader stock price indexes reached record levels shortly after the meeting, but then lost part of their gains, finishing with increases of 2 to 4 percent over the intermeeting period.

(3) The dollar declined against all major currencies, particularly the German mark and other EMS currencies, over the intermeeting period. On a weighted average basis, the dollar's depreciation was 5-3/4 percent. Of that, about half was a reversal very early in the period of a spike occasioned by the attempted Soviet coup. The subsequent course of Soviet events seemed to lessen further the risk attached to mark assets. Relative monetary policy stances and prospects also served to depress the dollar against the mark. German interest rates held fairly steady, and market participants anticipated no near-term change in the Bundesbank's monetary policy stance. In

3. Private three-month rates very recently become an exception to this generalization, when they increased appreciably as their maturity date moved past year-end; these rates are now little changed on balance over the period. All financial market quotes in the bluebook reflect data through noon, September 27.

Japan, indications of further slowing in economic growth and reserve market operations by the Bank of Japan led to significant declines in market interest rates and expectations of a further easing of monetary policy. Still, the dollar has fallen 2-1/4 percent against the yen since after the collapse of the coup, reflecting to some extent increased market focus on Japan's burgeoning external surplus.

(4) The broad monetary aggregates have more or less levelled out after sizable declines earlier in the summer. M2 is estimated to have risen only slightly over August and September, and M3 to have fallen at a 1 percent average rate. Both aggregates were somewhat weaker than anticipated at the last FOMC meeting, leaving them around the lower bounds of their respective annual ranges in September.⁴ By contrast, M1 grew at a 7 percent pace over August and September--in line with its growth earlier in the year.⁵ On average for the third quarter, M2 fell at a 1/4 percent annual pace and M3 at a 2-1/2 percent rate.⁶ To an extent, weak money reflects the relatively slow expansion of nominal GNP, which is now estimated at 4-1/2 percent in the third quarter, only a little above its pace in the second

4. Estimates of monetary growth in September are based on actual data through the first two weeks of the month and preliminary data for the third week.

5. Like the broader aggregates, M1 did accelerate noticeably from a weak performance in July, lifting the growth of both required and total reserves to a 9 percent rate over August and September. Non-borrowed reserves rebounded to an average 11-3/4 percent pace over the two months, as adjustment plus seasonal borrowing declined. Aided by stronger currency growth, the monetary base is estimated to have grown at a 7-1/2 percent rate over August and September.

6. This quarterly decline in M2 is the first since the official series began in 1959 and nearly 2 percentage points below the previous weakest quarter. The decline in M3 is only the second in its official series.

quarter. But even given GNP, the behavior of M2 has been extraordinary, as suggested by the nearly 5 percent rate of increase in its velocity during the third quarter, in the face of the substantial declines over previous quarters in the usual measure of opportunity costs. The error for M2 growth in the staff money demand model amounted to an unprecedented 6-1/4 percentage points for the quarter.

(5) The unusual weakness in M2 growth relative to that of income in recent months reflects a variety of factors, many of them difficult to quantify. Household portfolio shifts into higher-yielding capital market instruments have been spurred by the lowest yields on M2 assets in many years and a steeply upward-sloped yield curve. Heightened demand for longer-term securities is indicated by heavy flows into bond and equity mutual funds and an appreciable increase in noncompetitive tenders for Treasury notes. In addition, households may be using M2 assets to pay down debt and to finance consumption, given the relatively high effective rates on consumer credit and many existing mortgages. Low net returns on M2 assets have resulted in part from declines in market rates, and also from unaggressive pursuit of deposits by banks and thrifts. Continued contraction of the thrift industry, along with weak bank credit, imply reduced demands for funding by depositories. While these developments are primarily reflected in declines in large time deposits, they likely have effects on the growth of M2 as well, through reduced advertising for retail deposits, higher service fees, a cutback in brokered deposits at many institutions, and increased availability of alternative investments through bank offices. A portion of the shrinkage of thrifts has resulted from stepped-up RTC activity, involving abrogated contracts and disrupted thrift-depositor relationships. These identified shifts in household and depository behavior do not seem to account for the entire shortfall in money growth, and they do not

themselves indicate whether this shortfall has implications for future income. No doubt some portion of the shortfall reflects a reshuffling of portfolios without clear implications for spending. However, the behavior of M2 also may reflect weak prospective loan growth at depositories, high real interest rates on longer-term instruments, or low spending plans.

(6) Borrowing by nonfederal sectors appears to have remained anemic in recent months, below the estimated growth of income, consistent with the notion that credit supplies are still constrained and spending is being supported in part by drawdowns of financial assets. Consumer credit continued to decline in July and commercial bank data suggest no growth in August and September. Bank real estate loans fell over August and September; however, some of this decline undoubtedly is in commercial mortgages, and estimates of aggregate residential mortgage activity for the third quarter indicate that growth is continuing at about the subdued second-quarter pace. Business borrowing remains quite weak, likely reflecting continued sizable reductions in inventories and reduced merger activity. Businesses continued to raise substantial amounts in bond and equity markets, partly to fund short-term debt. Supported by heavier borrowing by the federal government, domestic nonfinancial debt growth appears to have picked up to a pace of more than 5-1/2 percent in August, lifting the debt aggregate to the lower end of its monitoring range.

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

	Aug.	Sept.	June pe to Sept.	QIV'90 to pe Sept.
<u>Money and credit aggregates</u>				
M1	9.2	5.5	5.5	6.9
M2	0.1	0.8	-1.0	2.5
M3	-1.4	-0.8	-2.6	0.9
Domestic nonfinancial debt	5.7	--	5.2 ²	4.5 ³
Bank credit	-0.7	1.9	0.4	2.1
<u>Reserve measures</u>				
Nonborrowed reserves ¹	14.2	9.2	6.6	7.0
Total reserves	11.7	6.1	6.6	7.0
Monetary base	9.1	6.1	7.0	8.1
Memo: (Millions of dollars)				
Adjustment plus seasonal borrowing	464	337	--	--
Excess reserves	1088	911	--	--

pe--preliminary estimate.

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

2. June to August.

3. QIV'90 to August.

NOTE: Monthly reserve measures, including excess reserves and borrowing, are calculated by prorating averages for two-week reserve maintenance periods that overlap months. Reserve data incorporate adjustments for discontinuities associated with changes in reserve requirements.

Policy Alternatives

(7) Two short-run policy alternatives are presented below for Committee consideration. Under alternative B, the federal funds rate would be expected to remain centered on 5-1/4 percent, in association with an initial specification for adjustment plus seasonal borrowing of \$325 million.⁷ Under alternative A, federal funds would tend to trade around 4-3/4 percent, which could be fostered either by lowering the borrowing specification by \$50 million to \$275 million or by lowering the discount rate by a further 1/2 point to 4-1/2 percent. The latter approach to alternative A would preserve the present spread of the funds rate over the discount rate and thus the current degree of cushioning of transitory shocks to the supply and demand for reserves.

(8) Market participants in recent days appear to have built in some prospects for additional easing of monetary policy in the period ahead. Nonetheless, the unchanged federal funds rate associated with alternative B is unlikely to engender a marked backup in yields in financial markets over the intermeeting period, so long as incoming nonfinancial and monetary data are mixed, as would be the case under the staff's forecast. Under those circumstances, the recently lower exchange value of the dollar, too, probably will be sustained. With elevated federal borrowing needs over the intermeeting period continuing to place upward pressure on Treasury yields, rate spreads on private instruments over Treasury securities also would be anticipated to stay relatively narrow.

7. Over the intermeeting period, seasonal borrowing would be expected to diminish, necessitating downward technical adjustments to the borrowing specification.

(9) The size and timing of the 1/2 percentage point drop in the federal funds rate of alternative A would tend to catch financial markets unawares, inducing almost as large a drop in other short-term interest rates. In the context of weak money growth, such an easing might be seen as signifying Federal Reserve concern that financial conditions, including credit availability, were not consistent with a moderate expansion of the economy. In these circumstances, long-term rates would be likely to drop, at least initially, in normal proportion to the decline in short-term rates. Should subsequent data suggest, however, that the recovery is already on track and inflation progress only moderate, long-term rates might back up a bit, as the lower level of short-term rates appeared unsustainable. The value of the dollar on exchange markets would ratchet lower in response to the downward movement of interest rates in the United States relative to those abroad.

(10) The sizable overpredictions of M2 and M3 growth over recent months have heightened the uncertainty surrounding the staff's projections of money growth. This experience has reinforced the suspicion that the relationships are changing or that there are factors affecting M2 demand--such as promotional activity for retail deposits and opportunity costs with respect to long-term rates or tax-adjusted consumer credit rates--that have not previously been given sufficient weight. However, assessing the magnitude of their effects is extremely difficult given the limited period of anomalous M2 behavior.

(11) In making its projections, the staff has assumed that the effects of some of these special factors will lessen a little in coming months, so that somewhat faster growth in the broad aggregates will resume. In particular, the stock adjustment to the current constellation of various opportunity costs is seen as likely to abate

gradually, since holders of very liquid assets have already had ample opportunity and incentive to shift portfolio holdings. In addition, in light of the lengthening economic recovery and more certain income prospects, money holders may be more willing to take on debt and thus to resist a further steep decline in their real balances. On the deposit-supply side, some recovery in bank credit seems in store for coming months, which should show through to a more buoyant M2 as well as M3. Finally, a little impetus to M2 in the fourth quarter is likely to be provided by a pickup in growth in nominal GNP and spending. The staff's expectations for growth of the monetary aggregates under the two policy alternatives are given in the table below, both from September to December and from the fourth quarter of 1990 to December. (The table and charts on the following pages contain more detailed data.)

	<u>Alt. A</u>	<u>Alt. B</u>
Growth from September to December		
M2	4	3
M3	2	1-1/2
M1	8-1/2	6-1/2
Implied growth from 1990:Q4 to December		
M2	2-3/4	2-1/2
M3	1	1
M1	7-1/2	7

(12) Under the unchanged interest rates of alternative B, M2 growth is projected to pick up to a 3 percent rate over the last three months of the year, leaving this aggregate at the lower bound of its

Alternative Levels and Growth Rates for Key Monetary Aggregates

	M2		M3		M1	
	Alt. A	Alt. B	Alt. A	Alt. B	Alt. A	Alt. B
Levels in billions						
1991 July	3391.1	3391.1	4147.7	4147.7	859.7	859.7
August	3391.4	3391.4	4142.9	4142.9	866.3	866.3
September	3393.7	3393.7	4140.2	4140.2	870.3	870.3
October	3403.6	3402.2	4144.8	4143.7	875.7	875.0
November	3414.9	3410.7	4151.6	4148.8	881.9	879.8
December	3427.7	3419.2	4160.9	4155.7	888.9	884.5
Monthly Growth Rates						
1991 July	-3.9	-3.9	-5.5	-5.5	1.8	1.8
August	0.1	0.1	-1.4	-1.4	9.2	9.2
September	0.8	0.8	-0.8	-0.8	5.5	5.5
October	3.5	3.0	1.3	1.0	7.5	6.5
November	4.0	3.0	2.0	1.5	8.5	6.5
December	4.5	3.0	2.7	2.0	9.5	6.5
Quarterly Ave. Growth Rates						
1990 Q4	2.0	2.0	0.9	0.9	3.4	3.4
1991 Q1	3.4	3.4	4.0	4.0	5.9	5.9
Q2	4.8	4.8	1.9	1.9	7.3	7.3
Q3	-0.3	-0.3	-2.6	-2.6	6.9	6.9
Q4	2.8	2.2	0.9	0.6	7.8	6.6
Jun 91 to Sept 91	-1.0	-1.0	-2.6	-2.6	5.5	5.5
Sept 91 to Dec 91	4.0	3.0	2.0	1.5	8.6	6.5
Q4 90 to Q2 91	4.1	4.1	3.0	3.0	6.7	6.7
Q4 90 to Q3 91	2.7	2.7	1.1	1.1	6.8	6.8
Q4 90 to Q4 91	2.7	2.6	1.0	1.0	7.2	6.9
Q4 90 to Sep 91	2.5	2.5	0.9	0.9	6.9	6.9
Q4 90 to Dec 91	2.8	2.6	1.1	1.0	7.4	6.9
1991 Target Ranges:	2.5 to 6.5		1.0 to 5.0			

Chart 1

ACTUAL AND TARGETED M2

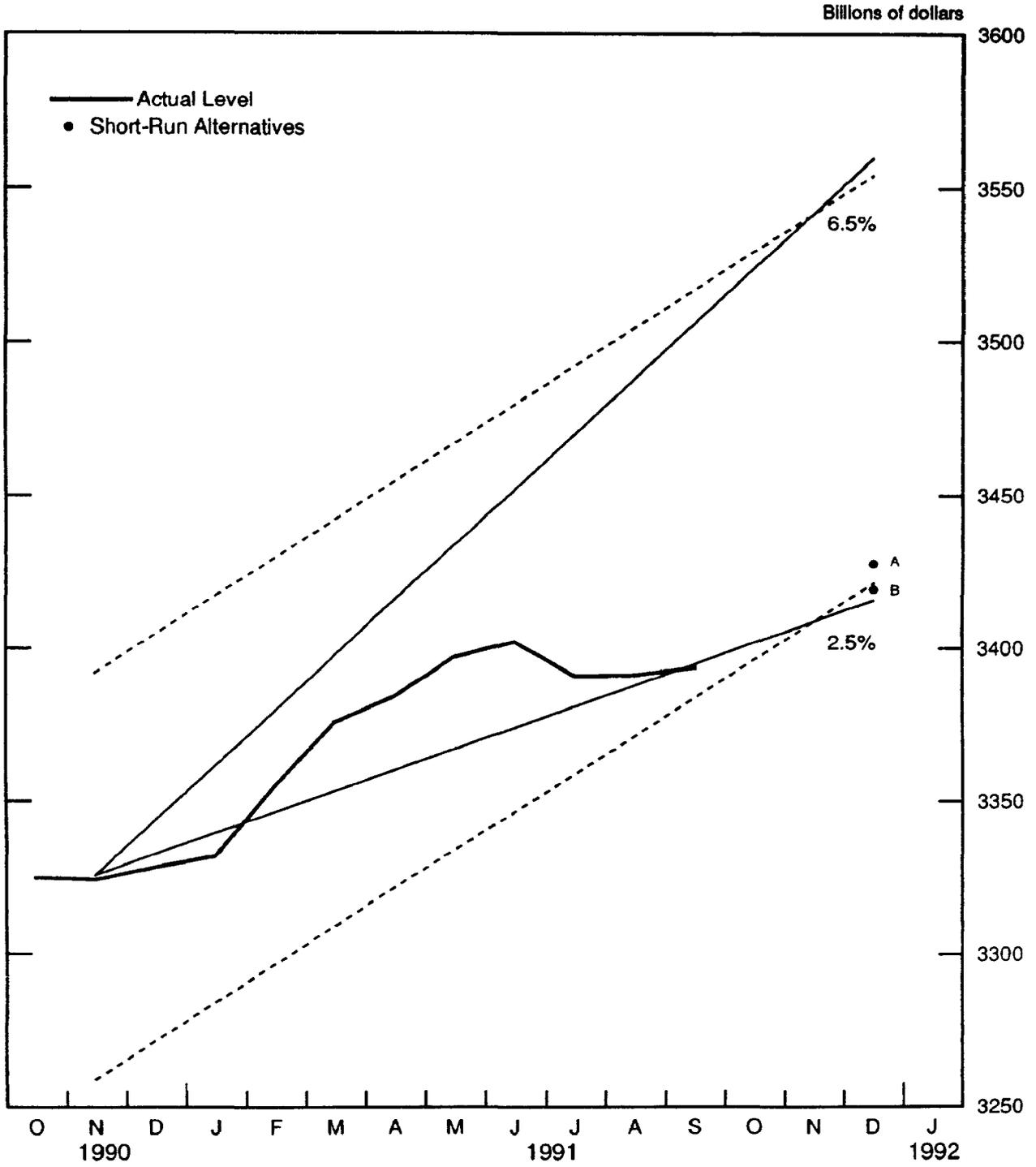


Chart 2

ACTUAL AND TARGETED M3

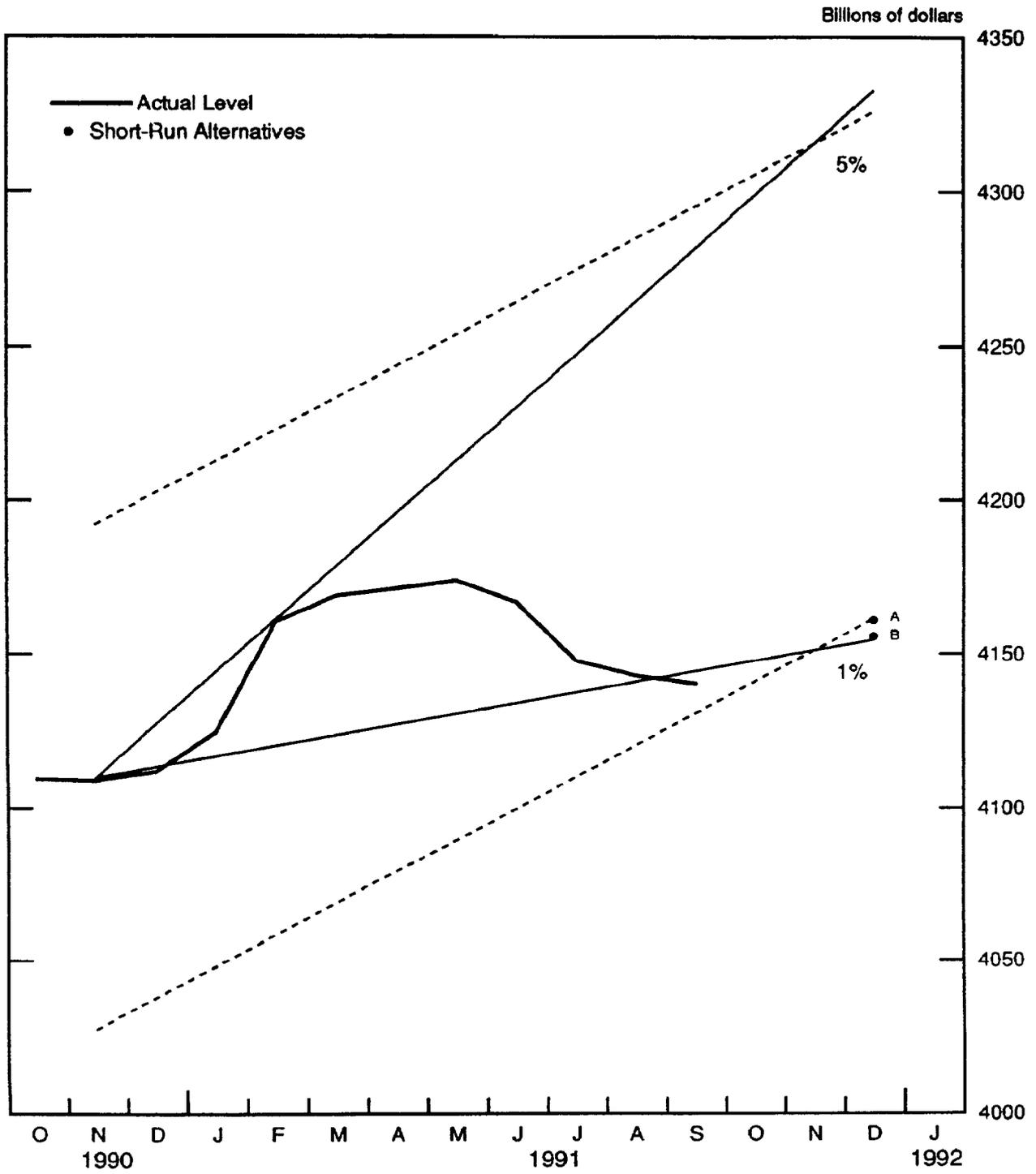


Chart 3

M1

Billions of dollars

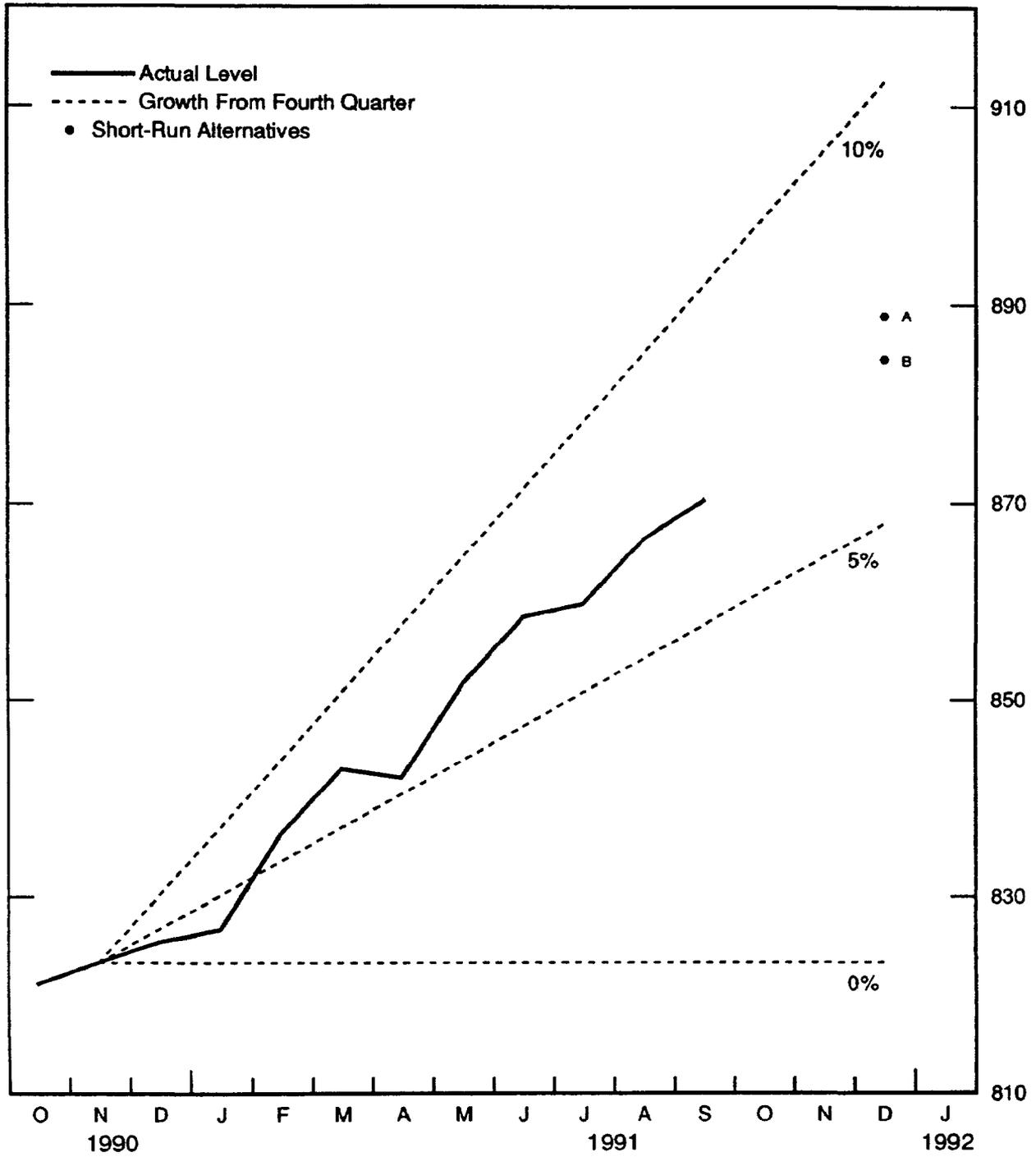
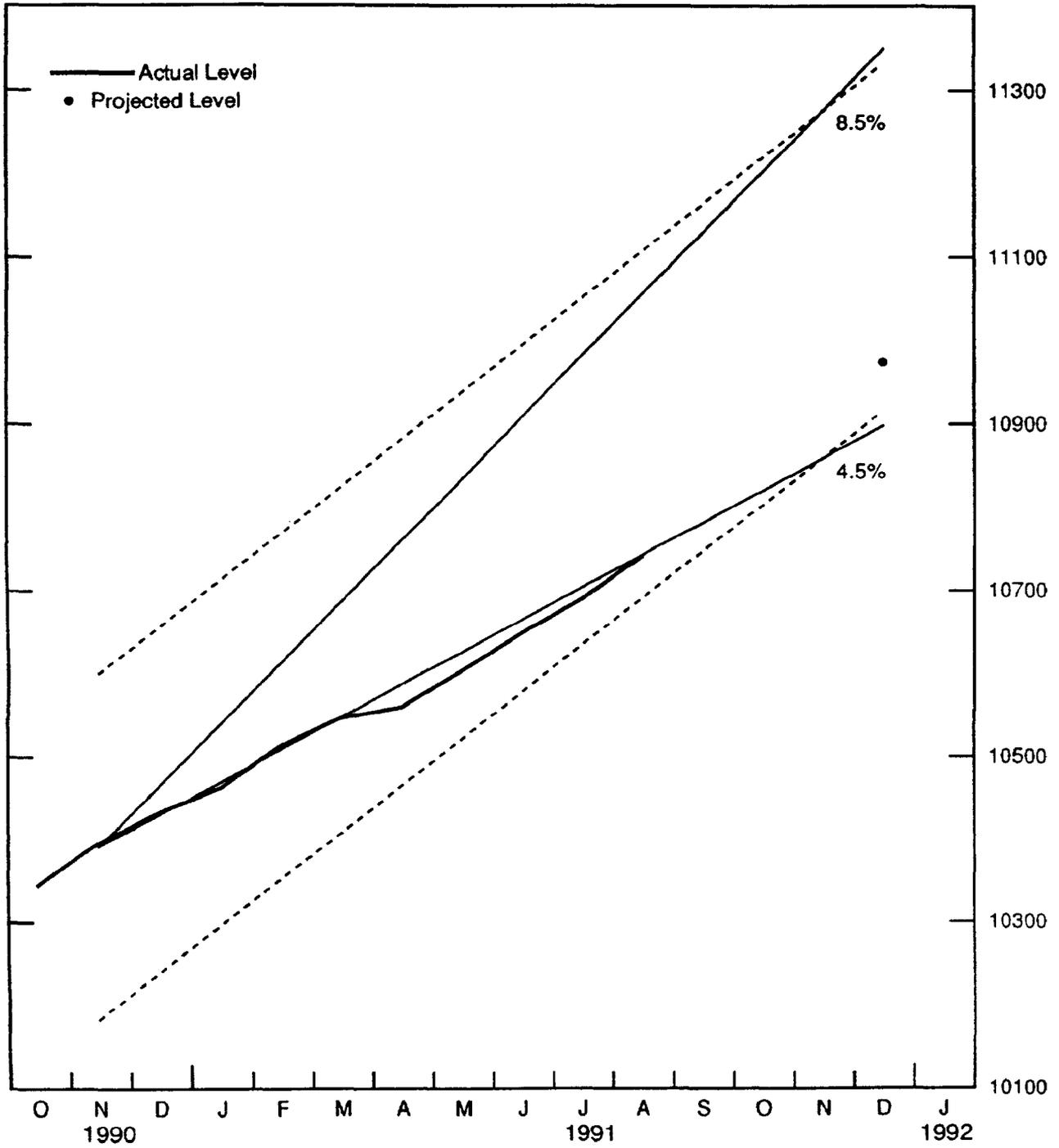


Chart 4
DEBT

Billions of dollars



long-run range.⁸ M1 is expected to grow at a 6-1/2 percent pace from September to December, producing a similar growth rate on a quarterly average basis and another decline in M1 velocity in reflection of the recent drop in its opportunity costs.⁹ On a quarterly average basis, a 2-1/4 percent rate of M2 growth would be implied for the year's final quarter, up from the slight decline posted in the third quarter. The gain in the velocity of M2 in the fourth quarter-- given the staff's projection of 6 percent growth for nominal GNP-- would be somewhat below the estimated 4-1/2 percent annual rate of increase in V2 estimated for the third quarter. The implied 3-1/2 percentage point error in the staff's standard econometric model for M2 growth would be about half the size of the record miss of the third quarter.

(13) Under alternative B, growth in M3 from September to December is expected to strengthen to a 1-1/2 percent annual rate. The runoff of commercial bank loans posted over the third quarter is forecast to cease over the fourth quarter. With the strengthening of bank capital positions progressing, and the default risk on some loan applicants tempered by improving income prospects, bank lending terms and conditions should remain stable and perhaps even start to ease a

8. We have made no allowance for unusual runoffs of time deposits in October, when, according to news stories, there will be a bulge in maturing retail CDs. The staff has no data to assess whether such a bulge will indeed occur. Seasonally adjusted time deposits have not exhibited unusual volatility in past Octobers relative to the adjacent months, nor did they last April when another bulge was said to be in train and time deposit rates had already decreased substantially.

9. Total reserves are projected to grow at an 8 percent annual rate from September to December. Combined with a 7 percent growth of currency, the monetary base is anticipated to expand at a 7 percent annual rate.

little. Bank funding needs would be bolstered, cutting into the paydown of their managed liabilities. The contraction of thrift balance sheets, however, is likely to continue unabated in the fourth quarter, in association with sustained heavy RTC activity, assuming congressional appropriation of requested funding. Large time deposits would still run off, albeit at a slower pace than over recent months, and M3 expansion would continue to be lower than growth of M2.

(14) The debt of domestic nonfinancial sectors under alternative B is projected to grow at a 6-1/2 percent annual rate from August to December, somewhat faster than the pace now estimated over July and August. The implied growth from the fourth quarter of 1990 of 5-1/4 percent to December would move this aggregate further into its 4-1/2 to 8-1/2 percent annual monitoring range. With the pickup in GNP expansion, nonfederal debt growth is projected to rise to around a 4 percent rate over the last four months of this year. The strengthening is expected in a number of components, though growth continues to be relatively sluggish, reflecting persisting credit supply restraint and high spreads of lending over borrowing rates at intermediaries. In the household sector, home mortgage debt growth strengthens a little through year-end in the forecast, as the recovery in housing sales remains subdued. Consumer credit is expected to continue to contract, albeit at a slower rate. For businesses, issuance of long-term debt should be sustained if intermediate- and longer-term interest rates remain around current levels, while business loans at banks and commercial paper outstanding should fall noticeably less rapidly as inventory liquidation abates.

(15) The 1/2 percentage point decline in the federal funds rate under alternative A would promote faster money growth than under alternative B, improving the odds that the aggregates would end up in the ranges. However, relative to previous bluebooks, the staff has

scaled back its estimate of the response of M2 growth to such a policy easing. Rather than the customary 1-1/2 percentage point increment to the growth rate of M2, we now estimate that the added growth would be more on the order of 1 percentage point at an annual rate. With returns on non-M1 components of M2 reaching their lowest levels in several years and falling further relative both to rates on capital market instruments and to household borrowing costs, households will have stronger incentives from these channels to pare holdings of non-transactions M2. This reasoning yields projected M2 growth over the next three months under alternative A of 4 percent at an annual rate. Our estimate of the responsiveness of M1 and M3 growth to monetary policy easing, however, remains approximately unchanged, implying growth rates of these aggregates of 8 and 2 percent, respectively, from September to December.

Directive Language:

(16) Draft language for the operational paragraph, including the usual options and updating, is presented 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. Depending upon progress toward price stability, trends in economic activity, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets, somewhat (SLIGHTLY) greater reserve restraint might (WOULD) or somewhat (SLIGHTLY) lesser reserve restraint (MIGHT) would be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with a resumption of growth of M2 and M3 in the weeks ahead; but in view of the declines already posted since June, the Committee anticipates that M2 would be little changed and M3 would be down at an annual rate of about 1 percent over the period from June through September THROUGH DECEMBER AT ANNUAL RATES OF ABOUT ____ AND ____ PERCENT, RESPECTIVELY.

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	
90 -- High	8.33	7.96	8.00	7.97	8.58	8.60	8.06	10.50	9.09	9.07	9.13	10.50	7.83	10.99	10.67	8.63
Low	7.16	6.54	6.60	6.51	7.63	7.80	7.16	10.00	7.42	7.94	8.00	9.55	7.28	9.91	9.56	7.86
91 -- High	7.46	6.46	6.49	6.43	7.75	8.49	7.37	9.93	7.47	8.35	8.52	9.96	7.40	9.97	9.75	7.78
Low	5.29	5.19	5.22	5.24	5.40	5.49	5.18	8.00	6.43	7.57	7.90	9.01	6.91	9.11	8.95	6.83
Monthly																
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
Nov 90	7.81	7.06	7.03	6.85	8.03	7.84	7.34	10.00	7.74	8.39	8.54	10.07	7.45	10.25	10.01	8.10
Dec 90	7.31	6.74	6.70	6.61	7.82	8.28	7.20	10.00	7.47	8.07	8.24	9.95	7.34	9.95	9.67	7.93
Jan 91	6.91	6.22	6.28	6.25	7.17	7.12	6.92	9.52	7.38	8.09	8.27	9.83	7.32	9.89	9.64	7.74
Feb 91	6.25	5.94	5.93	5.91	6.52	6.53	6.10	9.05	7.08	7.85	8.03	9.54	7.17	9.63	9.37	7.65
Mar 91	6.12	5.90	5.92	6.00	6.45	6.48	6.12	9.00	7.35	8.11	8.29	9.58	7.32	9.81	9.50	7.47
Apr 91	5.91	5.65	5.71	5.85	6.06	6.08	5.89	9.00	7.23	8.04	8.21	9.46	7.24	9.75	9.49	7.38
May 91	5.78	5.46	5.61	5.76	5.91	5.91	5.60	8.50	7.12	8.07	8.27	9.45	7.13	9.73	9.47	7.22
Jun 91	5.90	5.57	5.75	5.96	6.07	6.06	5.49	8.50	7.39	8.28	8.47	9.53	7.30	9.93	9.62	7.24
Jul 91	5.82	5.58	5.70	5.91	5.98	5.98	5.46	8.50	7.38	8.27	8.45	9.55	7.18	9.79	9.57	7.23
Aug 91	5.66	5.33	5.39	5.45	5.65	5.72	5.38	8.50	6.80	7.90	8.14	9.25	7.05	9.44	9.24	7.08
Weekly																
Jun 5 91	5.91	5.55	5.69	5.84	5.99	5.97	5.51	8.50	7.16	8.11	8.31	9.55	7.24	9.95	9.48	7.24
Jun 12 91	5.75	5.57	5.76	5.99	6.11	6.07	5.48	8.50	7.41	8.29	8.48	9.52	7.36	9.96	9.66	7.22
Jun 19 91	5.78	5.59	5.78	5.98	6.08	6.09	5.48	8.50	7.44	8.32	8.51	9.57	7.31	9.91	9.65	7.24
Jun 26 91	5.79	5.57	5.75	5.97	6.02	6.05	5.48	8.50	7.43	8.32	8.50	9.51	7.30	9.91	9.67	7.25
Jul 3 91	6.34	5.56	5.71	5.98	6.05	6.07	5.50	8.50	7.39	8.27	8.44	9.58	7.24	9.94	9.62	7.25
Jul 10 91	5.79	5.58	5.69	5.94	6.04	6.04	5.46	8.50	7.47	8.35	8.52	9.53	7.19	9.78	9.64	7.22
Jul 17 91	5.85	5.58	5.71	5.90	5.97	5.98	5.47	8.50	7.38	8.28	8.46	9.61	7.17	9.74	9.54	7.23
Jul 24 91	5.75	5.58	5.73	5.91	5.97	5.94	5.46	8.50	7.38	8.28	8.48	9.53	7.13	9.70	9.50	7.21
Jul 31 91	5.79	5.56	5.69	5.85	5.92	5.92	5.44	8.50	7.27	8.20	8.38	9.35	7.10	9.57	9.44	7.22
Aug 7 91	5.83	5.46	5.54	5.66	5.80	5.83	5.44	8.50	7.03	8.04	8.24	9.30	7.07	9.46	9.27	7.14
Aug 14 91	5.62	5.32	5.39	5.45	5.63	5.68	5.40	8.50	6.84	7.93	8.18	9.18	7.03	9.40	9.19	7.05
Aug 21 91	5.68	5.21	5.25	5.27	5.57	5.65	5.35	8.50	6.66	7.82	8.09	9.24	7.03	9.38	9.17	7.03
Aug 28 91	5.58	5.36	5.40	5.43	5.64	5.71	5.31	8.50	6.73	7.86	8.11	9.17	7.00	9.38	9.15	6.96
Sep 4 91	5.60	5.32	5.35	5.38	5.60	5.73	5.26	8.50	6.65	7.80	8.04	9.11	7.02	9.33	9.14	6.93
Sep 11 91	5.56	5.28	5.30	5.32	5.55	5.65	5.26	8.50	6.61	7.76	8.03	9.04	7.00	9.18	9.02	6.87
Sep 18 91	5.44	5.19	5.22	5.24	5.42	5.51	5.21	8.07	6.50	7.64	7.94	9.01	6.95	9.11	8.95	6.83
Sep 25 91	5.29	5.19	5.24	5.24	5.40	5.49	5.18	8.00	6.43	7.57	7.90	..	6.91	..	..	..
Daily																
Sep 20 91	5.24	5.19	5.24	5.24	5.41	5.48	..	8.00	6.44	7.57	7.89	..	..	..	..	..
Sep 26 91	5.40	5.13	5.17	5.17	5.39	5.53	..	8.00	6.35	7.56	7.89	..	..	..	..	..
Sep 27 91	5.40 _p	..	..	..	..	..	..	8.00	.. _p	.. _p	.. _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

Seasonally adjusted

SEP. 27, 1991

Period	Money stock measures and liquid assets					Bank credit	Domestic nonfinancial debt ¹			
	M1	M2	nontransactions components		M3	L	total loans and investments	U.S. government ¹	other ¹	total ¹
			in M2	in M3 only						
	1	2	3	4	5	6	7	8	9	10
ANN. GROWTH RATES (%) :										
ANNUALLY (Q4 TO Q4)										
1988	4.2	5.2	5.5	10.7	6.3	7.2	7.7	8.0	9.5	9.2
1989	0.6	4.7	6.1	-0.6	3.6	4.8	7.5	7.5	7.8	7.7
1990	4.2	3.8	3.7	-6.4	1.7	1.8	5.4	11.0	5.3	6.7
QUARTERLY AVERAGE										
1990-4th QTR.	3.4	2.0	1.6	-3.6	0.9	1.8	2.9	11.6	3.8	5.7
1991-1st QTR.	5.9	3.5	2.7	6.5	4.0	3.2	2.7	11.9	2.1	4.5
1991-2nd QTR.	7.3	4.8	4.0	-10.5	1.9	-2.5	2.7	5.7	3.0	3.7
1991-3rd QTR. pe	7	-½	-2½	-12½	-2½					
MONTHLY										
1990-SEP.	7.8	4.4	3.3	-9.7	1.7	5.2	1.5	11.0	5.1	6.5
OCT.	-0.9	1.0	1.7	-4.0	0.1	-0.1	2.6	5.8	4.0	4.5
NOV.	3.1	-0.3	-1.3	0.5	-0.1	1.2	1.3	16.2	2.8	6.0
DEC.	3.1	1.5	1.0	-2.1	0.8	1.4	3.1	12.9	1.6	4.3
1991-JAN.	1.9	1.3	1.1	14.4	3.8	4.0	-1.0	10.2	1.1	3.3
FEB.	14.1	8.4	6.6	18.8	10.4	6.5	6.3	14.3	3.1	5.8
MAR.	9.5	7.4	6.7	-18.2	2.5	-0.2	6.7	5.4	3.3	3.8
APR.	-1.3	3.0	4.4	-9.2	0.7	-7.9	0.1	-3.2	3.0	1.5
MAY	13.5	4.6	1.6	-15.7	0.7	-5.1	-0.6	10.5	3.1	4.9
JUNE	9.6	1.7	-0.8	-18.4	-2.0	5.9	5.5	14.9	2.0	5.1
JULY	1.8	-3.9	-5.8	-12.9	-5.5	0.7	0.0	11.8	2.2	4.6
AUG.	9.2	0.1	-3.1	-7.9	-1.4		-0.7	16.1	2.3	5.7
SEP. pe	6	1	-1	-8	-1					
LEVELS (\$BILLIONS) :										
MONTHLY										
1991-APR.	842.1	3384.3	2542.2	787.0	4171.3	4975.2	2751.8	2591.0	7968.7	10559.7
MAY	851.6	3397.2	2545.5	776.7	4173.9	4953.9	2750.5	2613.7	7989.4	10603.1
JUNE	858.4	3402.1	2543.7	764.8	4166.9	4978.2	2763.2	2646.1	8002.6	10648.6
JULY	859.7	3391.1	2531.5	756.6	4147.7	4980.9	2763.3	2672.1	8017.6	10689.7
AUG.	866.3	3391.4	2525.0	751.6	4142.9		2761.6	2707.9	8032.8	10740.7
WEEKLY										
1991-AUG. 5	867.7	3390.8	2523.0	748.7	4139.5					
12	862.8	3387.9	2525.2	753.6	4141.6					
19	864.6	3391.0	2526.4	753.1	4144.0					
26	869.8	3397.5	2527.7	751.5	4149.0					
SEP. 2	867.0	3387.8	2520.7	749.6	4137.4					
9 p	867.3	3391.1	2523.8	746.5	4137.6					
16 p	869.7	3396.3	2526.5	747.9	4144.2					

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

SEP. 27, 1991

Period	Currency	Demand deposits	Other checkable deposits	Overnight RPs and Eurodollars NSA ¹	MMDAs	Savings deposits	Small denomination time deposits ²	Money market mutual funds		Large denomination time deposit	Term RPs NSA ⁴	Term Eurodollars NSA ⁴	Savings bonds	Short-term Treasury securities	Commercial paper ¹	Bankers acceptances	
								general purpose and broker/dealer ³	Institutions only								
								1	2								3	4	5	6	7	8	9	10	11	12	13	14	15	16
LEVELS (\$BILLIONS) :																	
ANNUALLY (4TH QTR.)																	
1988	210.8	287.3	280.1	83.4	505.8	424.5	1022.4	237.5	86.7	538.	123.2	102.8	108.8	266.8	326.6	40.5	
1989	220.9	278.9	282.9	76.1	482.0	402.9	1142.4	308.9	101.4	565.7	106.6	80.2	116.8	321.5	350.4	40.4	
1990	245.1	277.1	292.8	79.0	506.5	411.1	1162.5	343.0	121.9	511.1	93.3	70.5	125.2	332.2	359.1	33.8	
MONTHLY																	
1990-AUG.	238.4	278.0	292.1	82.9	505.9	412.7	1158.3	335.8	114.0	529.	101.8	68.3	123.0	328.6	347.0	32.3	
SEP.	241.5	279.1	293.0	81.8	507.4	412.3	1160.1	339.3	116.2	521.	98.0	70.0	123.8	331.9	359.0	31.8	
OCT.	243.9	277.1	291.8	84.0	506.7	411.5	1161.4	341.6	119.6	515.	95.2	70.2	124.5	329.9	358.8	32.6	
NOV.	245.0	277.2	292.8	78.2	506.8	411.1	1161.8	341.9	120.5	512.1	95.2	70.0	125.2	332.8	359.0	34.0	
DEC.	246.4	276.9	293.8	74.7	505.9	410.8	1164.2	345.4	125.7	507.1	89.6	71.4	126.0	333.9	359.4	34.7	
1991-JAN.	251.6	272.9	293.9	72.0	505.2	412.0	1163.9	353.9	130.1	511.9	87.5	71.9	126.7	331.7	363.2	36.0	
FEB.	255.1	276.1	296.9	71.0	511.5	415.4	1162.7	358.2	139.3	516.	86.0	72.6	127.8	329.6	355.9	35.2	
MAR.	256.7	277.1	301.0	70.1	519.2	420.5	1158.3	363.6	142.0	511.	82.3	71.1	128.9	325.7	352.0	32.4	
APR.	256.6	275.8	301.9	70.8	526.6	427.2	1150.2	364.2	145.6	507.1	81.1	68.2	130.1	305.5	337.6	30.7	
MAY	256.8	278.7	308.1	69.7	536.1	433.1	1140.5	365.1	146.2	503.1	79.8	65.4	131.4	297.2	322.7	28.8	
JUNE	257.6	281.0	312.0	69.3	542.1	438.9	1129.1	364.3	143.3	498.1	77.3	64.8	132.5	324.9	326.4	27.6	
JULY	258.9	279.0	314.1	65.8	547.2	442.8	1118.7	359.4	141.8	491.1	78.5	64.0	133.5	336.8	335.1	27.7	
AUG.	260.8	279.9	318.0	68.4	548.4	447.7	1110.3	352.8	144.8	484.1	78.3	63.1					

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 SECURITIES¹
Millions of dollars, not seasonally adjusted

September 27, 1991

Period	Treasury bills			Treasury coupons						Federal agencies redemptions (-)	Net change outright holdings total ⁴	Net RPs ⁵
	Net purchases ²	Redemptions (-)	Net change	Net purchases ³				Redemptions (-)	Net Change			
				within 1 year	1-5	5-10	over 10					
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
1990	17,448	4,400	13,048	425	50	-100	—	—	375	183	13,240	11,128
1990 —Q1	-3,799	1,400	-5,199	100	100	—	—	—	200	—	-5,000	-4,061
—Q2	10,892	—	10,892	—	150	—	—	—	150	78	10,964	509
—Q3	5,115	—	5,115	—	—	—	—	—	—	70	5,045	-2,124
—Q4	5,241	3,000	2,241	325	-200	-100	—	—	25	35	2,230	16,805
1991 —Q1	2,160	1,000	1,160	800	2,950	400	—	—	4,150	—	5,310	-16,864
—Q2	4,356	—	4,356	900	550	—	—	—	1,450	91	5,715	992
1990 September	631	—	631	—	—	—	—	—	—	—	631	-3,878
October	933	—	933	—	—	—	—	—	—	34	899	2,457
November	6,658	—	6,658	325	—	—	—	—	325	—	6,983	509
December	-2,350	3,000	-5,350	—	-200	-100	—	—	-300	1	-5,651	13,839
1991 January	-120	1,000	-1,120	—	—	—	—	—	—	—	-1,120	-944
February	1,967	—	1,967	100	—	350	—	—	450	—	2,417	-1,127
March	313	—	313	700	2,950	50	—	—	3,700	—	4,013	-14,793
April	908	—	908	700	550	—	—	—	1,250	91	2,067	1,370
May	3,411	—	3,411	200	—	—	—	—	200	—	3,611	-1,153
June	37	—	37	—	—	—	—	—	—	—	37	775
July	1,359	—	1,359	625	—	—	—	—	625	55	1,929	71
August	5,776	—	5,776	340	—	—	—	—	340	—	6,116	-2,134
Weekly												
July 3	439	—	439	—	—	—	—	—	—	—	439	-156
July 10	109	—	109	—	—	—	—	—	—	—	109	4,780
July 17	719	—	719	500	—	—	—	—	500	—	1,219	-7,270
July 24	129	—	129	125	—	—	—	—	125	55	199	-2,134
July 31	—	—	—	—	—	—	—	—	—	—	—	1,801
August 7	184	—	184	150	—	—	—	—	150	—	334	3,541
August 14	468	—	468	90	—	—	—	—	90	—	558	-5,781
August 21	960	—	960	100	—	—	—	—	100	—	1,060	3,627
August 28	406	—	406	—	—	—	—	—	—	—	406	-1,679
September 4	4,093	—	4,093	—	—	—	—	—	—	—	4,093	10,301
September 11	15	—	15	—	175	—	—	—	175	5	185	-11,492
September 18	179	—	179	200	450	—	—	—	650	—	829	15,116
September 25	—	—	—	—	25	—	—	—	25	—	25	-15,745
Memo: LEVEL (bil. \$) ⁶												
September 25			132.9	30.7	61.3	13.8	24.2		130.0		269.0	-6.5

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. Reflects net change in 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
2.4	2.5	1.0	0.2	6.1

September 25