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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

March 22, 1991

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) In the period immediately after the February FOMC meeting, the Desk sought a degree of reserve pressure consistent with federal funds continuing to trade in the area of 6-1/4 percent. Reserve targets were based on a formal allowance for adjustment plus seasonal borrowing of \$100 million. On March 8, in response to data indicating that the economy had continued to weaken substantially into February, the borrowing allowance was lowered by \$25 million and the Desk signalled a 25 basis point reduction in the System's intended federal funds rate. The average federal funds rate has dropped to 6.11 since the easing, down from 6.33 percent over the first two maintenance periods after the meeting. Adjustment plus seasonal borrowing has run appreciably above the path allowance, in part reflecting a greater willingness by banks to come to the discount window when conditions tighten in the funds market.¹

(2) The change in borrowing behavior may have been one reason for a substantial decrease in the volatility of the federal funds rate over the intermeeting period. The intraday trading range, for example, has narrowed to levels prevailing last autumn, before the cut in reserve requirements. An additional factor damping funds rate movements may have been the greater experience of bank reserve managers in operating with

1. Borrowing averaged \$264 million in the first two maintenance periods, and \$138 million in the most recent complete maintenance period. In the current period, the Desk made a technical upward adjustment of \$50 million to the borrowing assumption in recognition of the usual upturn in seasonal borrowing and the greater use of adjustment credit.

lower balances. The most important factor, however, probably has been the rise of required reserve balances from their seasonal low reached in early February, so that, together with enlarged required clearing balances, they now appear to exceed the level needed for daily clearing purposes. With required balances moving above clearing needs, demands for excess reserves fell over the intermeeting period, averaging a more normal \$1.1 billion in the last two maintenance periods.

(3) Despite the drop in the federal funds rate, short-term Treasury bill rates declined only very slightly over the intermeeting period and rates on longer-term Treasury issues rose about 35 basis points.² The upward pressures on rates likely stemmed primarily from improved prospects for economic recovery following the quick and successful conclusion of the war--with the resulting rebound in consumer confidence and demands for reconstruction capital by Kuwait. Signs of increased activity in housing markets also appeared to foreshadow an economic turnaround, which--along with disappointing news on prices--was seen as limiting any scope for further easing by the Federal Reserve. Anticipation of better business earnings and reduced strains on borrowers have helped narrow spreads of private securities over Treasury debt during the intermeeting period, particularly for those issuers that had been seen as especially vulnerable to a prolonged recession. Rates on most private short-term paper have declined a little more than Treasury bill rates while, in contrast to yields on Treasury bonds, rates on high-grade bonds

² Discussions of interest and exchange rates and stock prices in this document are based on the most recent information available through noon, March 22.

are little changed and those on lower-rated bonds are down substantially. Stock prices flirted with record levels during the period, though they have retraced part of these gains in recent days. Bank stock prices were about unchanged over the period, but spreads on subordinated bank debt have narrowed substantially--drawing forth some issuance--and the access of lower-rated banks to the federal funds market has become a bit less restricted.

(4) The dollar's weighted-average foreign exchange value soared 11 percent over the intermeeting period; the dollar rose about 12 percent from its low just after the February FOMC meeting, before easing back a little over the last few days. In addition to optimism about the U.S. economy, there was a growing perception that growth abroad was weakening and that foreign interest rates were now more likely to move lower, on average, than higher. Political turmoil in the Soviet Union appeared to affect the German mark adversely, and the dollar rose more against the mark than against the yen. These factors, however, seem unable to account fully for the extraordinary strength of the dollar. Whereas in the first days of the intermeeting period the Desk

sold \$850 million equivalent of marks to support the dollar, by the second week of March the Desk was selling dollars (\$330 million)

. Foreign short-term interest rates on

average declined about 35 basis points over the period, while long-term rates were about unchanged.

(5) At least partly in response to earlier declines in interest rates, the monetary aggregates have accelerated in recent months. M2 increased at an 8-1/2 percent annual rate in February, and partial data suggest growth has continued in March at about a 7 percent pace. This outcome would bring expansion over the December-to-March period to a 5-1/2 percent pace, considerably above the FOMC's expectation at the last meeting of 3-1/2 to 4 percent, and would leave M2 near the middle of its 2-1/2 to 6-1/2 percent target range. The bulk of the acceleration within M2 has occurred in liquid retail deposits--OCDs, savings, and MMDAs. Offering rates on these accounts have, as usual, responded quite sluggishly to the declines in market interest rates over the past several months, substantially reducing their opportunity costs. In addition, demand deposits also reversed their January decline, and currency growth remained brisk in February before moderating this month.³ The belated emergence of a response to opportunity costs, which had been narrowing since last summer, may suggest some return of confidence in the banking system, in light of the prospects for economic recovery and absence of new highly publicized

3. M1 expanded at a 14 percent rate in February and growth is estimated at about 7 percent in March. Reflecting a pickup in required reserves associated with the acceleration of transactions deposits, nonborrowed and total reserves growth increased in February to 15-1/2 and 10 percent rates, respectively. These measures are expected to be about flat in March, however, as excess reserves continue to decline on a monthly average basis and required reserves rise less rapidly. Growth of the monetary base slowed to a 16-1/2 percent rate in February, owing to a deceleration of currency growth, which nevertheless, at nearly 17 percent, was still quite rapid. In March, the base is expected to increase at about a 4 percent rate.

bank failures or depositor losses. Over the last two months, M2 has grown considerably more rapidly than predicted by econometric models, making up a small portion of the earlier shortfall. Nevertheless, given the slow growth late last year and in January, expansion in the first quarter on a quarterly average basis still is below model predictions, and M2 velocity is likely to decline at only about a 1 percent annual rate.

(6) Whether the pickup in M2 also is associated with a greater willingness to lend by depositories (or at least no further intensification of restraint) is difficult to tell. Bank credit has strengthened in February and early March, but the spread of the prime over market rates has widened even further, and banks report that they have continued to tighten credit standards for businesses. M3 growth also accelerated--to a 10-1/2 percent rate in February, and a 4-3/4 percent pace estimated for March--bringing December-to-March growth to a 6-1/4 percent rate. However, the strength of M3, which also ran well above expectations, reflected a number of influences unrelated to an expansion of credit through depositories. For example, a substantial portion of the increase in M3 over the first quarter was attributable to rapid growth of institution-only money market funds, which have been boosted by declines in money market rates during the past few months. In addition, an unanticipated rise in large time deposits over the past two months was due entirely to issuance by branches and agencies of foreign banks, primarily to substitute domestic CDs for federal funds and Eurodollar borrowings as a result of the elimination of the reserve requirement on nontransaction

liabilities, which reduced the relative cost of domestic CDs.⁴ Large time deposits at domestic banks and thrifts have continued to run off.

(7) Private credit growth appears to have strengthened, but only a little from its very depressed pace in the months around year-end. Overall business borrowing has been damped by a fall-off in equity retirements as well as by weak fixed capital and inventory investment. Offerings of corporate bonds have risen sharply, as treasurers apparently believe that interest rates are unlikely to decrease further. But, in part, this issuance was used to fund a paydown of short-term debt, as the total of bank loans and commercial paper declined. Consumer loans at banks rose in February on a monthly average basis, even after adjusting for a changing volume of securitization across months, but leveled out over the latter part of February and in early March. Issuance of tax-exempt securities has increased. However, Treasury borrowing has been reduced substantially, albeit temporarily, during the latter part of the first quarter, reflecting contributions related to the war and the slow pace of RTC resolutions. In total, domestic nonfinancial sector debt in February grew 6-1/4 percent at an annual rate from its fourth-quarter

4. Regulation D for some time has exempted from reserve requirements net Eurodollar borrowings equal to 8 percent of a branch's assets (after certain adjustments). Thus, the reduction of nontransaction reserve requirements to zero eliminated the value of this favorable treatment of net Eurodollar borrowings and lowered the relative cost of domestic CDs. More generally, foreign banks, who need not pay FDIC premiums on U.S. deposits, have found that the lack of reserve requirements on CDs reduces incentives to book dollar deposits at IBFs and non-U.S. offices. These institutions also report that they now are funding greater volumes of overseas assets by issuing deposits in the United States and lending the proceeds to their foreign offices.

base, leaving this aggregate in the lower half of its 4-1/2 to 8-1/2 percent monitoring range.

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

	Feb.	Mar. *	Dec '90 to * Mar.	QIV '90 to * Mar.
<u>Money and credit aggregates</u>				
M1	14.1	7	7-1/2	6-1/2
M2	8.6	7	5-1/2	4-1/2
M3	10.6	5	6-1/4	4-3/4
Domestic nonfinancial debt	6.2	--	5-1/2 ¹	5-1/2 ¹
Bank credit	6.3	--	2-3/4 ¹	2-1/2 ¹
<u>Reserve measures</u>				
Nonborrowed reserves ²	15.6	0	6	7-1/4
Total reserves	9.7	-1	5-1/4	6-3/4
Monetary base	16.4	4	13	11-1/2
Memo: (Millions of dollars)				
Adjustment plus seasonal borrowing	218	179	--	--
Excess reserves	1807	1143	--	--

* - partly projected.

1. Through February.

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. Reserve data incorporate adjustments for discontinuities associated with changes in reserve requirements. Reserve figures for March include assumptions of \$125 million for adjustment plus seasonal borrowing and \$1.2 billion for excess reserves in the maintenance period ending April 3.

Policy Alternatives

(8) Three policy alternatives are presented below for Committee consideration. Under alternative B, federal funds would continue to trade around 6 percent and would be associated with adjustment plus seasonal borrowing initially of \$125 million. An increase to about \$250 million over the intermeeting period may be called for as seasonal borrowing continues its normal climb. Under alternative A, the federal funds rate would fall to 5-1/2 percent, effected either through a reduction in borrowing to \$75 million or a 50 basis point cut in the discount rate and the same borrowing specification as in alternative B. As noted in recent bluebooks, it is technically feasible for federal funds to trade below the discount rate. However, the discount window becomes a marginally less effective buffer to unpredictable changes in reserve supply or demand, and the federal funds rate likely would be a little more volatile than if alternative A were achieved through a discount rate cut. Moreover, allowing the funds rate to fall below the discount rate is likely to give rise to market uncertainty about System intentions; in particular, there would be more speculation about whether a discount rate cut is forthcoming or whether a penalty discount rate is being instituted. Under alternative C, the federal funds rate would rise to 6-1/2 percent and the initial borrowing level would be increased to \$175 million.

(9) The structure of market interest rates does not now appear to incorporate expectations of any further easing in monetary policy in the weeks ahead; thus under alternative B, short-term interest rates are unlikely to change substantially, though they may edge lower. Private rates should slip off with the passing of quarter-end, and bills could

well benefit from steeper reductions in outstanding supplies after the April tax date. The greenbook forecast implies some further unwinding of the recent sharp rise in the dollar under the unchanged policy of alternative B. Still, with interest rate differentials now more favorable to dollar assets, the dollar should remain well above its February lows. Longer-term securities markets are likely to continue to be quite sensitive to data about developments in the real economy over the intermeeting period, as investors search for indications as to whether consumer and business responses to the end of the war are helping to propel a turnaround in the economy. Bond yields already seem to have built in some rebound in the economy, judging by their levels relative to inflation expectations and to short-term rates. Thus, they might not rise much, if at all, even should incoming information confirm that the economy was reaching a trough.

(10) Under alternative A, money market rates would likely decrease by close to the full amount of the reduction in the federal funds rate, and the prime rate would be lowered 1/2 percentage point, given its already wide margin over funding costs. The dollar would decline promptly and substantially. The drop in interest rates and the dollar could be seen by market participants as adding further stimulus at a time when a rebound in the economy already is expected. In such circumstances, bond rates might not decline by much, and could even back up. A reversal of any adverse reaction would occur, however, if incoming data began to confirm that the easing had correctly anticipated weaker money growth, more favorable trends in prices, or a substantial further shortfall in economic activity.

(11) The tightening of policy under alternative C would surprise market participants, coming on the heels of recent easing measures, and bill rates would rise by 1/2 percentage point. Private money market rates could well rise by more and quality spreads retrace some of their recent declines. In particular, a portion of the improvement since year-end in the prices of securities of financial firms likely would be reversed by the unexpected increase in short-term rates. Increases in bond yields might be limited, however, by a sense that the Federal Reserve was taking early action to check potential inflation pressures in the coming recovery. In this environment, the dollar would be subject to further upward pressure.

(12) The money growth paths projected under each alternative are given in the table below and in the table and charts on the following pages.

	<u>Alt. A</u>	<u>Alt. B</u>	<u>Alt. C</u>
Growth from March to June			
M2	6-1/2	5-1/2	4-1/2
M3	4	3-1/2	3
M1	7	5-1/2	4
Implied growth from 1990:Q4 to June			
M2	5-1/2	5	4-1/2
M3	4-1/2	4-1/4	4
M1	6-3/4	6	5-1/2

(13) Under alternative B, M2 would expand at about a 5-1/2 percent rate over the March-to-June period, in line with its December-to-March growth, placing it a little above the midpoint of its 1991 range. Expansion of money will continue to be boosted by previous declines in

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									
1991 January	3333.4	3333.4	3333.4	4124.4	4124.4	4124.4	826.7	826.7	826.7
February	3357.3	3357.3	3357.3	4160.9	4160.9	4160.9	836.4	836.4	836.4
March	3376.9	3376.9	3376.9	4177.1	4177.1	4177.1	840.9	840.9	840.9
April	3392.4	3391.0	3389.6	4191.0	4190.3	4189.6	845.4	844.8	844.2
May	3410.5	3406.2	3401.9	4204.3	4202.2	4200.1	850.3	848.6	846.9
June	3431.3	3422.7	3414.1	4217.6	4212.7	4207.8	855.8	852.5	849.2
Monthly Growth Rates									
1991 January	1.0	1.0	1.0	3.3	3.3	3.3	1.9	1.9	1.9
February	8.6	8.6	8.6	10.6	10.6	10.6	14.1	14.1	14.1
March	7.0	7.0	7.0	4.7	4.7	4.7	6.5	6.5	6.5
April	5.5	5.0	4.5	4.0	3.8	3.6	6.4	5.5	4.6
May	6.4	5.4	4.4	3.8	3.4	3.0	7.0	5.5	4.0
June	7.3	5.8	4.3	3.8	3.0	2.2	7.8	5.5	3.2
Quarterly Ave. Growth Rates									
1990 Q1	6.2	6.2	6.2	2.9	2.9	2.9	5.2	5.2	5.2
Q2	3.9	3.9	3.9	1.3	1.3	1.3	4.2	4.2	4.2
Q3	3.0	3.0	3.0	1.6	1.6	1.6	3.7	3.7	3.7
Q4	2.2	2.2	2.2	1.1	1.1	1.1	3.4	3.4	3.4
1991 Q1	3.4	3.4	3.4	4.1	4.1	4.1	5.5	5.5	5.5
Q2	6.6	6.1	5.5	4.8	4.6	4.3	7.6	6.7	5.8
Dec. 90 to Mar. 91	5.6	5.6	5.6	6.2	6.2	6.2	7.5	7.5	7.5
Mar. 91 to June 91	6.4	5.4	4.4	3.9	3.4	2.9	7.1	5.5	3.9
Q4 89 to Q4 90	3.9	3.9	3.9	1.7	1.7	1.7	4.2	4.2	4.2
Q4 90 to Q1 91	3.4	3.4	3.4	4.1	4.1	4.1	5.5	5.5	5.5
Q4 90 to Q2 91	5.1	4.8	4.5	4.5	4.4	4.3	6.6	6.2	5.7
Q4 90 to Apr. 91	4.7	4.6	4.5	4.6	4.6	4.6	6.4	6.3	6.1
Q4 90 to June 91	5.4	4.9	4.5	4.4	4.2	4.0	6.8	6.1	5.4
1991 Target Ranges:	2.5 to 6.5			1.0 to 5.0					

Chart 1
ACTUAL AND TARGETED M2

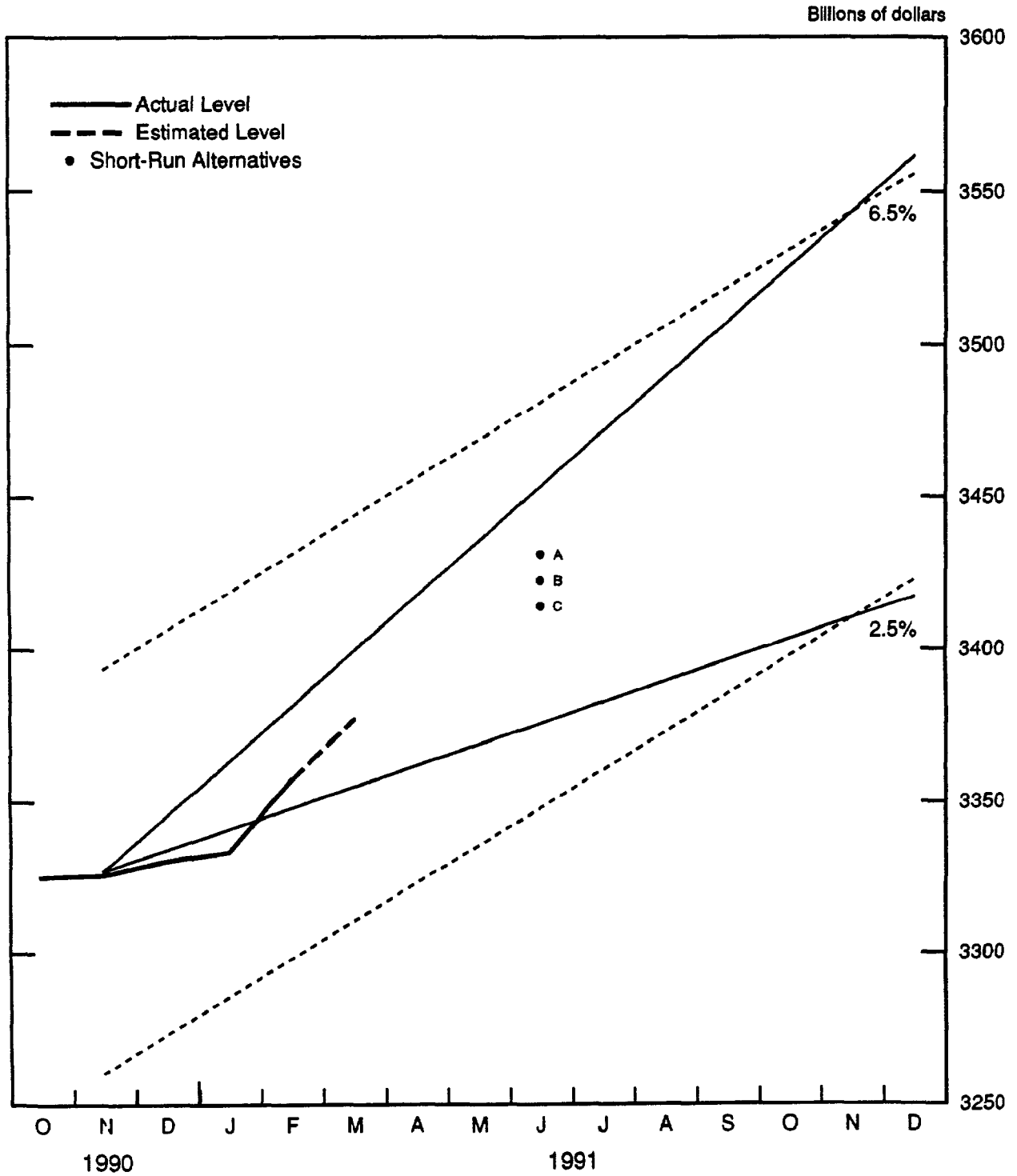


Chart 2
ACTUAL AND TARGETED M3

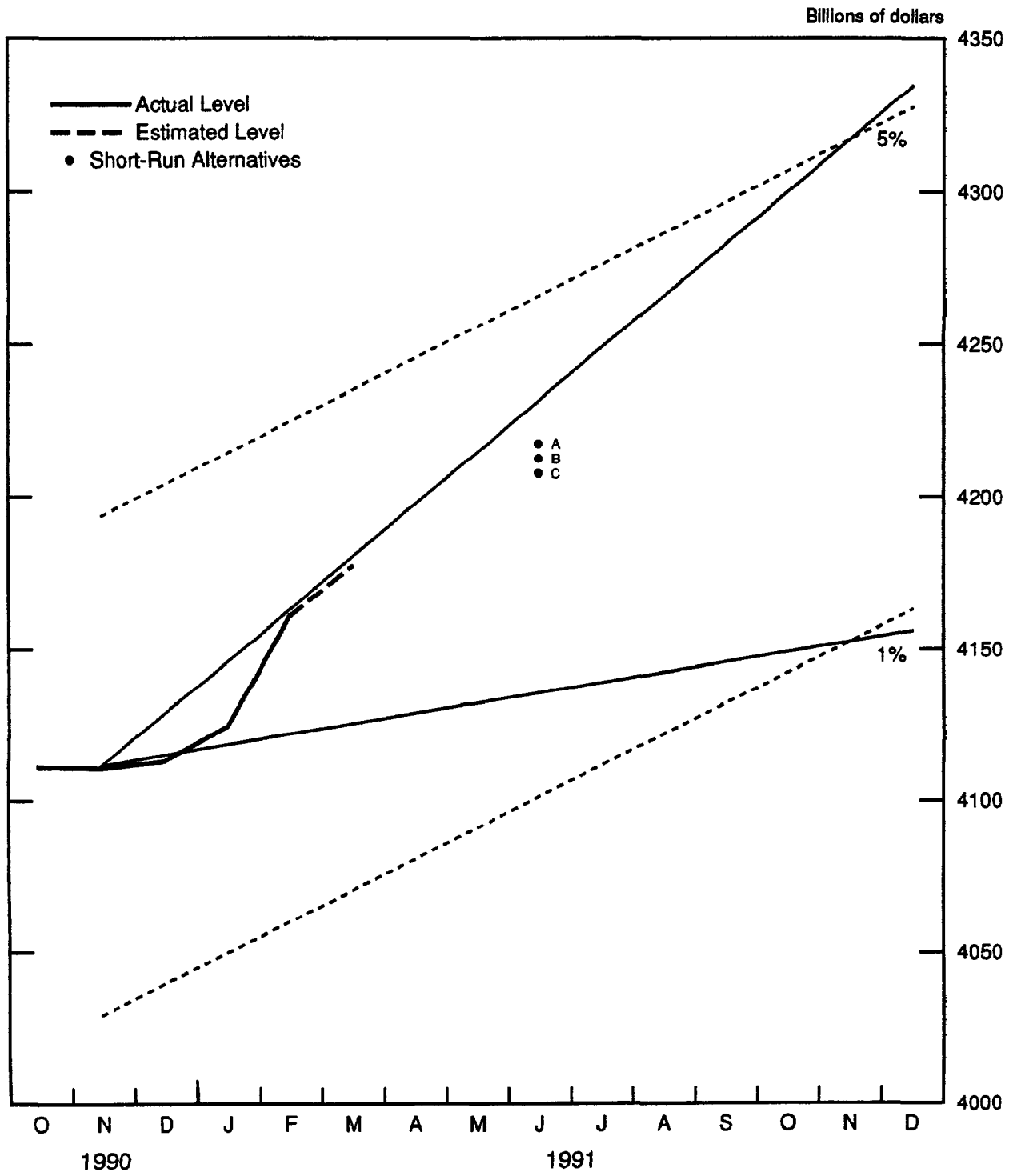


Chart 3

M1

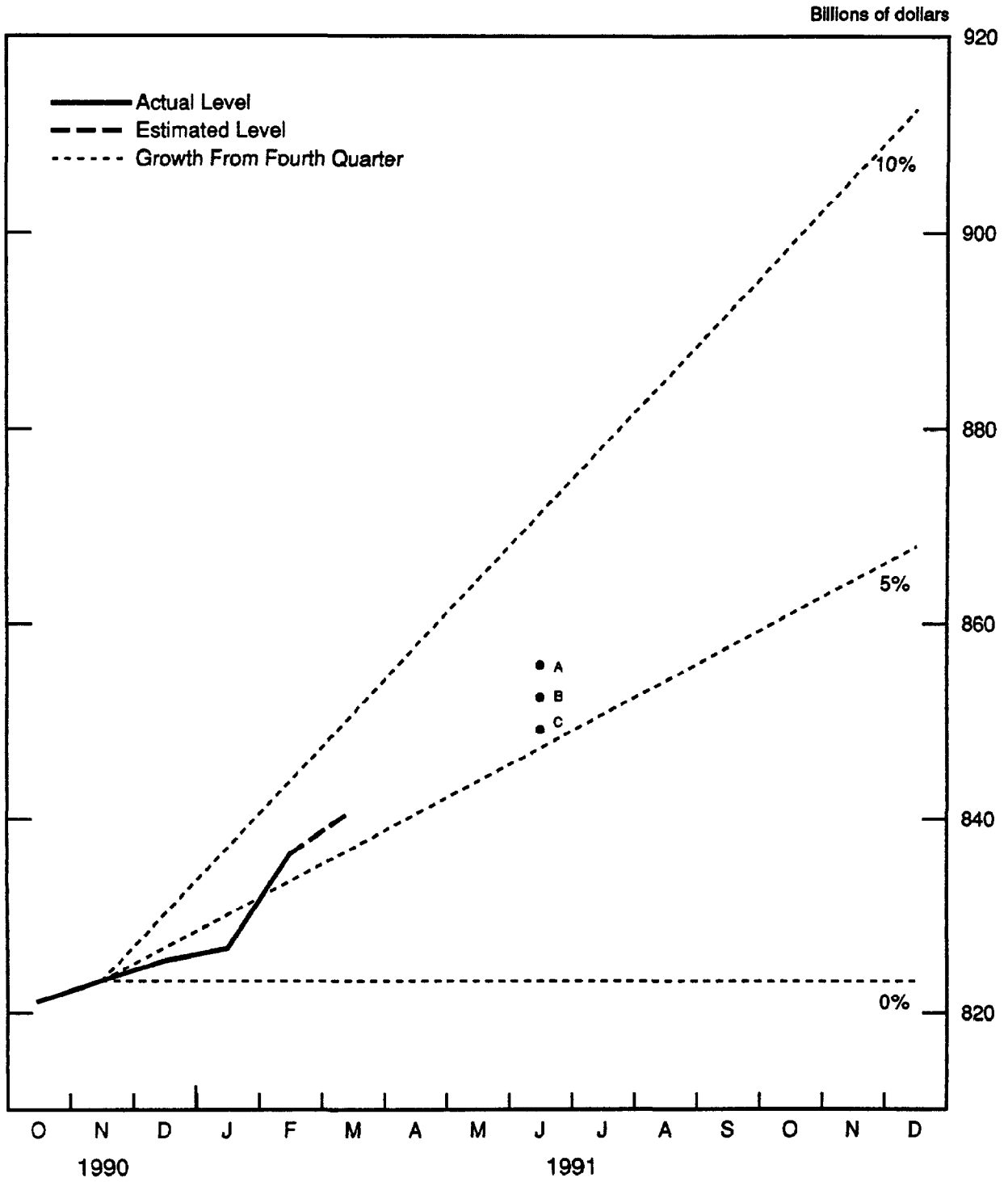
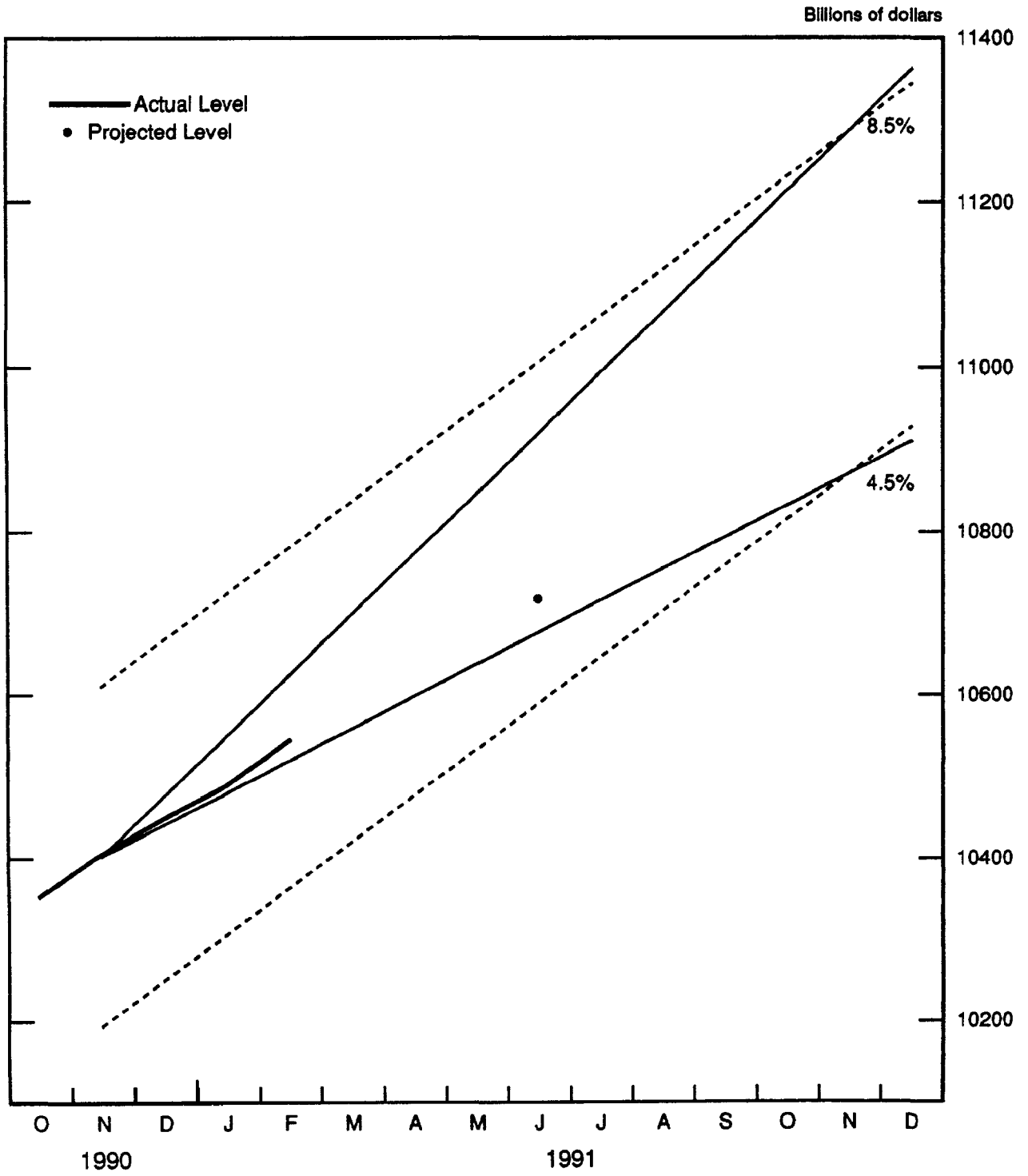


Chart 4
DEBT



market interest rates, but these effects will be less over the second quarter than over the first.⁵ On the other hand, the projected pickup in nominal spending will be working to buoy M2 growth over coming months. As in recent months, most of the increase in M2 will occur in the form of inflows to liquid retail balances, owing to their narrow opportunity costs, as offering rates come down only a bit in response to recent declines in market rates.⁶ Growth in small time deposits, by contrast, should continue anemic, given the much larger adjustment of the rates on these deposits to declines in market yields.

(14) On a quarterly average basis, M2 under alternative B would expand at a 6 percent annual rate in the second quarter, a shade faster than nominal GNP. Expansion at this rate would be a bit higher than predicted by the staff money demand models, implying a partial makeup of the shortfall of recent quarters. The projection thus assumes a continuation of the very recent experience, in which some of the unusual factors that

5. Growth rates for individual months are likely to be influenced by tax payments this year. Reflecting weakness in income last year, non-withheld tax payments due by April 15 could well fall short of those embedded in the seasonal adjustment factors for monetary aggregates. Thus, both the buildup of balances prior to that date and the decline in balances after it may be smaller than usual; in these circumstances, growth in M2 would be reduced in April but boosted in May. In addition, June growth could speed up a little more as the economic recovery foreseen by the staff shows through to demands for money.

6. Under alternative B, M1 also is projected to grow at an annual rate of 5-1/2 percent over the March-to-June period, as transaction deposits complete their adjustments to interest rate changes, and as currency demand abates with the end of war-related uncertainties. The level of demand deposits may be boosted to some degree by greater mortgage refinancing at the reduced levels of rates on fixed-rate mortgages of recent months; prepayments of securitized mortgages generally are held in demand deposits for some time before being passed through to security holders. However, at current interest rates, the effects of this on M1 growth rates are expected to be quite small in coming months. Growth of the monetary base is expected to slow to a 5-1/4 percent rate in the second quarter.

had been damping money growth in earlier quarters seem less pronounced. The recent recovery in confidence by depositors and investors in the banking system is not expected to be reversed, and against this backdrop, constriction of credit supplies by banks should not intensify. While opportunity costs will rise as offering rates continue to adjust, they are not expected to become unusually wide in coming months.

(15) Growth in M3 would slow to a 3-1/2 percent rate over the March-to-June period in the case of alternative B. To be sure, a modest pickup in bank lending and in the associated needs for funds is anticipated as credit demands strengthen with spending; banks should be willing to meet this demand in light of improved prospects for borrowers, enhanced access to capital markets and the recent regulatory initiatives. However, rate relationships are expected to be less favorable to money funds. In addition, the unusual issuance of large time deposits by U.S. branches of foreign banks related to the reserve requirement cut is assumed to slow in the second quarter. RTC resolution activity will pick up over the quarter, so that increasing quantities of thrift assets will end up financed by Treasury securities instead of M3. Even with its slowing, M3 would remain above the midpoint of its annual range by June. On a quarterly average basis, M3 would grow at a 4-1/2 percent rate in the second quarter, once again lagging growth in nominal income.

(16) Private debt growth should be a little stronger in the second quarter than in the first as the economy recovers, though below the growth in spending. Household borrowing will firm as consumer spending, including spending on durables, resumes expanding and as housing activity picks up further. Although access to credit by some households might be

curtailed, especially as delinquencies continue to rise, narrow spreads on mortgages and asset-backed securities recently suggest that credit constraints on households are unlikely to be very important. By contrast, the small business and commercial real estate sectors will continue to face stringent credit conditions. For firms with access to securities markets, however, limitations on credit should prove to be less of a factor, as indicated by reduced quality spreads. Overall, corporate borrowing is expected to edge higher, albeit largely reflecting a transitory pickup in share retirements. Stresses on state and local governments will result in some boost to their borrowing, mostly temporary short-term borrowing to cover deficits. Federal debt growth will pick up later in the quarter once RTC resolution activity revives. Growth in the debt of all domestic nonfinancial sectors is expected to be merely 5 percent from February to June, keeping this aggregate in the lower half of its 1991 monitoring range.

(17) Under alternative A, M2 would strengthen to a 6-1/2 percent rate over the March-to-June period. The pickup would be concentrated in retail liquid accounts as their opportunity costs fell further. By June, this aggregate would be well into the upper half of its annual range. M3 would expand at a 4 percent rate over this period, buoyed by larger inflows to money funds and by some spillover of the strength in M2.

(18) The tighter money market conditions of alternative C would slow M2 from the pace of December to March, holding this aggregate down to the midpoint of its 1991 range by June. M3 growth over the three months would moderate to a 3 percent rate, with some risk that expansion could be

even more damped if there were an appreciable adverse reaction in bank capital and funding markets.

Directive Language

(19) 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 SLIGHTLY (SOMEWHAT)/ maintain/ INCREASE SLIGHTLY (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, slightly (SOMEWHAT) greater reserve restraint (WOULD) might or (SLIGHTLY) somewhat lesser reserve restraint would (MIGHT) be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with growth of both M2 and M3 over the period from December through March THROUGH JUNE at annual rates of about __ AND __ 3-1/2 to 4 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	7.43	8.21	8.40	9.96	7.40	9.97	9.75	7.78
Low	6.10	5.83	5.86	5.85	6.32	6.33	6.05	9.00	6.98	7.79	7.97	9.46	7.07	9.52	9.25	7.45
Monthly																
Mar 90	8.28	7.90	7.85	7.76	8.35	8.32	7.65	10.00	8.63	8.59	8.56	9.92	7.53	10.61	10.27	8.53
Apr 90	8.26	7.77	7.84	7.80	8.42	8.32	7.69	10.00	8.78	8.79	8.76	10.09	7.62	10.75	10.37	8.55
May 90	8.18	7.74	7.76	7.73	8.35	8.24	7.68	10.00	8.69	8.76	8.73	10.04	7.59	10.68	10.48	8.59
Jun 90	8.29	7.73	7.63	7.53	8.23	8.21	7.66	10.00	8.40	8.48	8.46	9.85	7.47	10.37	10.16	8.50
Jul 90	8.15	7.62	7.52	7.40	8.10	8.09	7.64	10.00	8.26	8.47	8.50	9.96	7.40	10.26	10.04	8.43
Aug 90	8.13	7.45	7.38	7.26	7.97	7.99	7.49	10.00	8.22	8.75	8.86	10.29	7.57	10.41	10.10	8.35
Sep 90	8.20	7.36	7.32	7.24	8.06	8.09	7.47	10.00	8.27	8.89	9.03	10.28	7.72	10.45	10.18	8.28
Oct 90	8.11	7.17	7.16	7.06	8.06	8.04	7.45	10.00	8.07	8.72	8.86	10.23	7.74	10.47	10.18	8.21
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
Weekly																
Dec 5 90	7.60	7.02	6.96	6.82	8.18	8.11	7.26	10.00	7.64	8.23	8.38	9.91	7.33	9.94	9.81	8.04
Dec 12 90	7.25	6.88	6.75	6.68	7.63	7.89	7.21	10.00	7.43	8.01	8.17	9.92	7.28	9.91	9.56	7.91
Dec 19 90	7.29	6.77	6.70	6.59	7.69	8.04	7.16	10.00	7.42	8.01	8.17	9.96	7.36	9.96	9.64	7.86
Dec 26 90	7.16	6.54	6.60	6.51	8.01	8.60	7.16	10.00	7.48	8.13	8.29	9.99	7.39	9.97	9.68	7.92
Jan 2 91	7.17	6.46	6.49	6.43	7.75	8.49	7.37	9.93	7.41	8.07	8.24	9.85	7.32	9.80	9.56	7.78
Jan 9 91	6.40	6.43	6.44	6.36	7.32	7.30	7.08	9.50	7.38	8.10	8.29	9.96	7.40	9.97	9.63	7.76
Jan 16 91	6.77	6.10	6.21	6.21	7.32	7.25	6.91	9.50	7.43	8.21	8.40	9.77	7.34	9.93	9.75	7.74
Jan 23 91	6.88	6.10	6.22	6.21	7.13	7.01	6.79	9.50	7.38	8.05	8.20	9.80	7.31	9.84	9.61	7.69
Jan 30 91	7.46	6.19	6.23	6.19	6.91	6.88	6.76	9.50	7.35	8.04	8.22	9.65	7.24	9.70	9.56	7.75
Feb 6 91	6.32	6.01	5.99	5.93	6.55	6.61	6.65	9.29	7.09	7.89	8.08	9.53	7.08	9.60	9.36	7.68
Feb 13 91	6.29	5.89	5.88	5.85	6.43	6.45	6.25	9.00	6.98	7.79	7.97	9.46	7.07	9.52	9.25	7.59
Feb 20 91	6.26	5.92	5.90	5.89	6.47	6.48	6.35	9.00	7.04	7.81	7.99	9.53	7.23	9.68	9.29	7.57
Feb 27 91	6.31	5.99	5.98	5.97	6.64	6.60	6.29	9.00	7.21	7.93	8.09	9.64	7.31	9.85	9.40	7.53
Mar 6 91	6.47	6.06	6.06	6.09	6.73	6.78	6.19	9.00	7.36	8.09	8.26	9.62	7.30	9.81	9.49	7.51
Mar 13 91	6.17	5.92	5.94	6.00	6.51	6.55	6.15	9.00	7.31	8.07	8.24	9.54	7.29	9.71	9.50	7.45
Mar 20 91	6.10	5.83	5.86	5.98	6.32	6.33	6.05	9.00	7.35	8.14	8.33	..	7.33	..	..	..
Daily																
Mar 15 91	5.96	5.80	5.82	5.92	6.23	6.27	..	9.00	7.26	8.10	8.30	..	..	..	..	..
Mar 21 91	6.22	5.87	5.87	5.99	6.33	6.37	..	9.00	7.40	8.16	8.34	..	..	..	..	..
Mar 22 91	..	..	..	..	6.34	..	..	9.00	..	..	..	..	..	..	..	..

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

MAR. 25, 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	3.9	3.8	-6.4	1.7	1.8	5.4	11.0	5.5	6.8
QUARTERLY AVERAGE										
1990-1st QTR.	5.2	6.2	6.5	-9.6	2.9	2.8	5.6	6.8	6.2	6.3
1990-2nd QTR.	4.2	3.9	3.8	-9.1	1.3	0.9	6.4	9.7	6.2	7.0
1990-3rd QTR.	3.7	3.0	2.7	-3.9	1.6	1.9	6.1	14.4	4.9	7.1
1990-4th QTR.	3.4	2.2	1.8	-3.6	1.1	1.7	2.9	11.4	4.3	6.0
MONTHLY										
1990-FEB.	8.6	7.9	7.7	-13.9	3.5	1.9	7.0	8.3	7.3	7.6
MAR.	5.4	5.4	5.4	-15.5	1.2	2.9	8.5	12.8	7.2	8.5
APR.	4.5	3.8	3.5	-7.1	1.6	1.4	6.9	7.5	6.7	6.9
MAY	-0.3	1.1	1.5	-4.3	0.0	-4.2	3.2	7.5	4.5	5.2
JUNE	5.9	2.9	1.8	-7.1	0.9	4.8	6.6	14.9	4.1	6.6
JULY	-1.2	1.8	2.7	-2.1	1.0	1.0	5.8	13.9	5.1	7.2
AUG.	8.6	5.1	4.0	0.0	4.1	1.8	9.8	18.9	5.2	8.4
SEP.	7.8	4.3	3.2	-10.3	1.5	5.2	1.4	11.0	5.5	6.8
OCT.	-0.9	1.4	2.2	-1.7	0.8	0.1	2.6	5.6	4.4	4.7
NOV.	3.1	0.2	-0.7	-1.5	-0.1	1.1	1.3	15.5	3.2	6.1
DEC.	3.1	1.7	1.2	-3.7	0.7	0.9	3.1	13.1	2.5	5.1
1991-JAN.	1.9	1.0	0.8	13.0	3.3	2.3	-1.0	10.9	2.6	4.6
FEB. p	14.1	8.6	6.8	19.1	10.6		6.3	14.8	3.4	6.2
LEVELS (\$BILLIONS) :										
MONTHLY										
1990-OCT.	821.2	3325.2	2504.0	785.9	4111.1	4956.2	2713.6	2473.4	7879.7	10353.1
NOV.	823.3	3325.8	2502.5	784.9	4110.7	4960.7	2716.6	2505.4	7900.5	10405.9
DEC.	825.4	3330.5	2505.1	782.5	4113.0	4964.3	2723.6	2532.8	7917.2	10450.0
1991-JAN.	826.7	3333.4	2506.7	791.0	4124.4	4973.8	2721.2	2555.9	7934.5	10490.4
FEB. p	836.4	3357.3	2521.0	803.6	4160.9		2735.1	2587.5	7957.3	10544.7
WEEKLY										
1991-FEB. 4	833.3	3345.9	2512.7	798.4	4144.4					
11	836.4	3354.5	2518.1	805.4	4159.9					
18	838.7	3359.4	2520.7	805.5	4164.9					
25	836.0	3361.2	2525.3	804.0	4165.3					
MAR. 4 p	837.6	3367.1	2529.4	800.7	4167.7					
11 p	839.6	3373.2	2533.7	799.7	4172.9					

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

MAR. 25, 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 deposits ⁴	Term RPs NSA ¹	Term Eurodollars NSA ¹	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	538.8	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	565.0	106.6	80.2	116.8	321.5	350.4	40.4
1990	245.1	277.1	292.8	78.4	506.5	411.1	1163.3	344.1	121.9	511.5	93.8	70.2	125.2	331.7	358.1	33.8
MONTHLY																
1990-FEB.	226.6	279.4	287.5	82.3	491.8	408.7	1146.8	324.2	103.4	554.9	100.5	68.4	118.4	327.3	345.6	38.5
MAR.	228.4	278.9	289.8	81.9	495.7	410.2	1149.9	325.9	105.2	549.3	98.4	66.7	119.2	336.9	344.1	37.2
APR.	230.3	278.1	291.7	79.4	499.3	411.5	1152.2	327.0	106.9	543.7	98.2	65.3	119.9	329.9	351.9	36.0
MAY	231.9	275.8	292.0	83.2	500.5	411.3	1153.5	325.3	107.6	540.5	99.3	67.1	120.7	315.4	349.1	35.4
JUNE	233.7	276.3	293.7	82.3	502.3	411.8	1154.6	327.5	108.1	538.0	102.2	64.4	121.4	331.7	349.1	34.7
JULY	235.7	275.6	291.7	84.0	503.4	412.7	1156.8	329.2	109.8	535.0	100.5	65.1	122.2	334.3	348.2	33.0
AUG.	238.4	278.0	292.1	82.6	505.9	412.7	1158.3	335.8	114.0	529.2	102.0	68.2	123.0	329.8	345.9	32.3
SEP.	241.5	279.1	293.0	81.5	507.4	412.3	1159.9	339.2	116.2	521.9	98.3	69.4	123.8	333.8	357.9	31.8
OCT.	243.9	277.1	291.8	83.6	506.7	411.5	1162.2	341.7	119.6	515.1	95.6	71.1	124.5	330.4	357.6	32.6
NOV.	245.0	277.2	292.8	77.7	506.8	411.1	1162.9	343.0	120.5	512.5	95.7	69.6	125.2	332.9	357.9	34.0
DEC.	246.4	276.9	293.7	73.9	505.9	410.7	1164.9	347.7	125.7	507.0	90.2	69.8	126.0	331.9	358.8	34.7
1991-JAN.	251.6	272.9	293.9	71.5	505.1	412.0	1163.7	356.3	130.1	511.5	88.5	69.5	126.7	333.1	353.6	35.9
FEB. p	255.1	276.2	296.8	71.1	511.3	415.6	1162.5	360.5	139.3	515.0	87.0	71.3				

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

March 22, 1991

Period	Treasury bills			Treasury coupons						Federal agencies redemptions (-)	Net change outright holdings total ⁵	Net RPs ⁶
	Net purchases ²	Redemptions (-)	Net change	Net purchases ^{3 4}				Redemptions (-)	Net Change			
				within 1 year	1-5	5-10	over 10					
1988	7,835	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	475	—	-100	—	—	375	183	13,240	9,157
1989 —Q1	-3,842	2,200	-6,042	—	-228	-20	—	—	-248	188	-6,477	-5,591
—Q2	2,496	2,400	96	172	1,361	287	284	—	2,104	125	2,075	924
—Q3	-6,450	3,200	-9,650	—	-163	-9	—	—	-172	99	-9,921	-893
—Q4	8,264	4,930	4,333	155	-24	—	—	500	-369	31	3,934	3,877
1990 —Q1	-3,799	1,400	-5,199	100	100	—	—	—	200	—	-5,000	-4,061
—Q2	10,892	—	10,892	50	100	—	—	—	150	78	10,964	509
—Q3	5,115	—	5,115	—	—	—	—	—	—	70	5,045	95
—Q4	5,241	3,000	2,241	325	-200	-100	—	—	25	35	2,230	12,614
1990 March	543	—	543	100	100	—	—	—	200	—	742	-43
April	5,796	—	5,796	—	100	—	—	—	100	78	5,818	-1,260
May	3,365	—	3,365	—	—	—	—	—	—	—	3,365	-378
June	1,732	—	1,732	50	—	—	—	—	50	—	1,782	2,146
July	287	—	287	—	—	—	—	—	—	33	254	2,863
August	4,197	—	4,197	—	—	—	—	—	—	37	4,160	1,110
September	631	—	631	—	—	—	—	—	—	—	631	-3,878
October	933	—	933	—	—	—	—	—	—	34	899	-1,224
November	6,658	—	6,658	325	—	—	—	—	325	—	6,983	509
December	-2,350	3,000	-5,350	—	-200	-100	—	—	-300	1	-5,651	13,329
1991 January	-120	1,000	-1,120	—	—	—	—	—	—	—	-1,120	-5,890
February	1,967	—	1,967	100	—	350	—	—	450	—	2,417	-1,127
Weekly												
January 2	-1,151	1,000	-2,151	—	—	—	—	—	—	—	-2,151	-1,374
January 9	-100	1,000	-1,100	—	—	—	—	—	—	—	-1,100	-5,175
January 16	—	—	—	—	—	—	—	—	—	—	—	-854
January 23	—	—	—	—	—	—	—	—	—	—	—	2,847
January 30	—	—	—	—	—	—	—	—	—	—	—	-1,259
February 6	—	—	—	—	—	—	—	—	—	—	—	-5,359
February 13	225	—	225	—	—	—	—	—	—	—	225	5,332
February 20	381	—	381	—	—	—	—	—	—	—	381	3,466
February 27	1,193	—	1,193	—	450	—	—	—	450	—	1,643	-2,757
March 6	289	—	289	—	550	—	—	—	550	—	839	2,460
March 13	161	—	161	—	900	—	—	—	900	—	1,061	-7,177
March 20	31	—	31	—	900	—	—	—	900	—	931	9,762
Memo: LEVEL (bil. \$) ⁷												
March 20			120.9	25.0	61.5	13.7	24.7		124.9		252.6	-6.6

1. Change from end-of-period to end-of-period.

2. Outright transactions in market and with foreign accounts.

3. Outright transactions in market and with foreign accounts, and short-term notes acquired in exchange for maturing bills. Excludes maturity shifts and rollovers of maturing issues.

4. Weekly net purchases of Treasury coupons are summed over all maturities.

5. Reflects net change in redemptions (-) of Treasury and agency securities.

6. Includes change in RPs (+), matched sale-purchase transactions (-), and matched purchase sale transactions (+).

7. The levels of agency issues were as follows:

	within 1 year	1-5	5-10	over 10	total
March 20	2.7	2.4	1.0	0.2	6.3