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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

May 13, 1994

MONETARY POLICY ALTERNATIVES

Recent Developments<sup>1</sup>

(1) In keeping with a strategy of moving away from an accommodative stance in reserve provision at this stage in the economic expansion without severely unsettling financial markets, the intended federal funds rate was raised 25 basis points, to 3-1/2 percent, immediately following the March 22 FOMC meeting. On April 18, with incoming data having confirmed considerable momentum and diminishing slack in the economy, and financial markets seemingly more able to absorb further tightening, the intended funds rate was raised another 25 basis points, to 3-3/4 percent. Throughout the intermeeting period, the funds rate generally has traded near its intended level.<sup>2</sup>

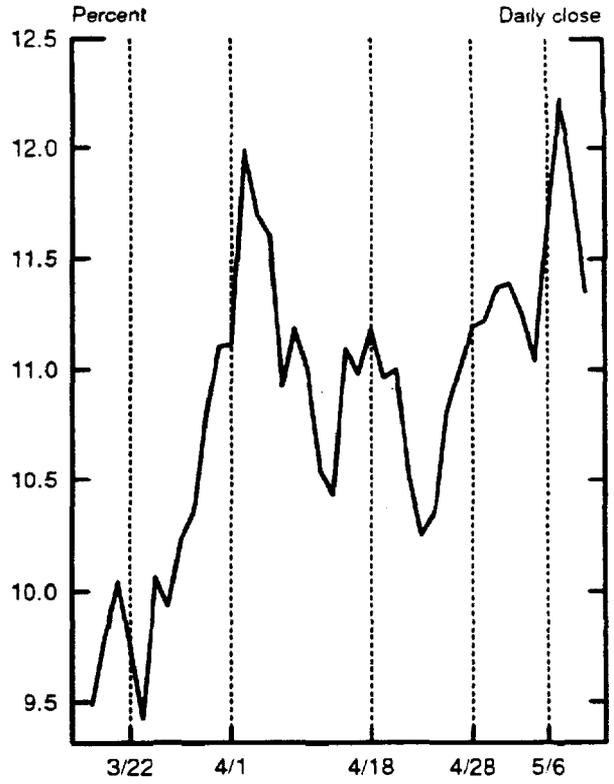
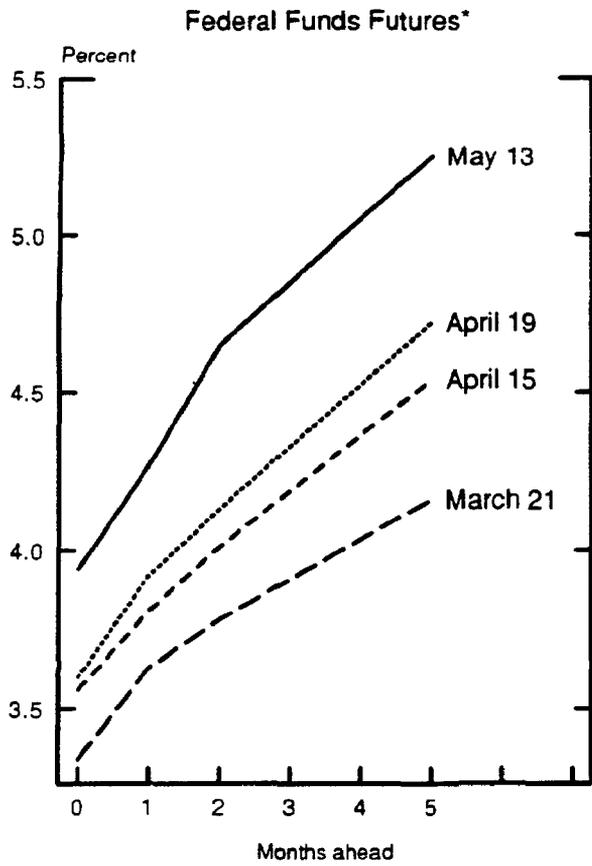
(2) As indicated in the upper left panel of Chart 1, just prior to the March FOMC meeting federal funds futures had embodied a rising path for the funds rate, including expectations of a 25 basis point tightening at that meeting and some probability of another move in April. As shown in the lower panel of the exhibit, the markets rallied after the March meeting, but only briefly. On March 24, banks increased the prime rate 25 basis points, to 6-1/4 percent, and over the next week and a half, market rates backed up, particularly after the release on April 1 of the strong March employment report:

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1. Financial market quotations in this section are taken as of noon, Friday, May 13.

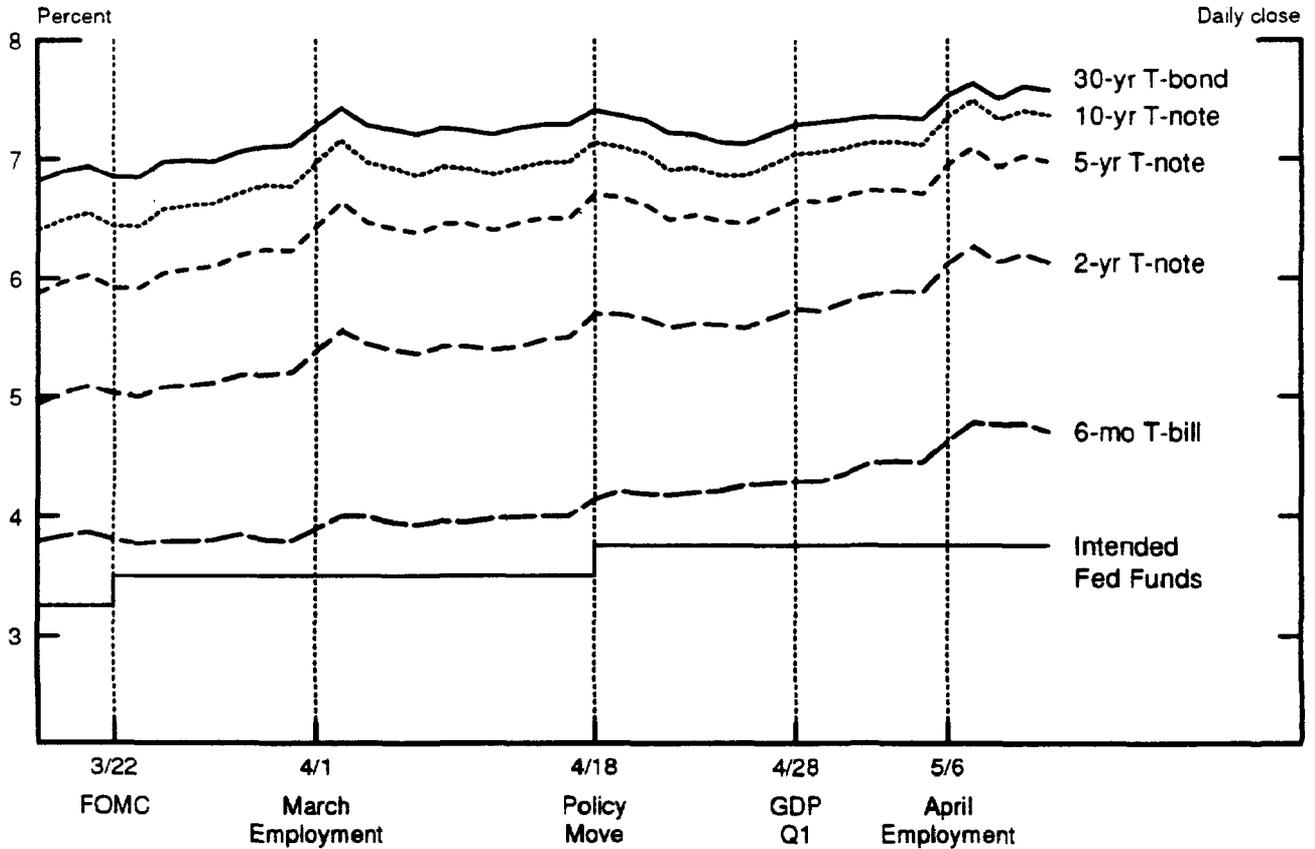
2. The allowance for adjustment plus seasonal borrowing was raised to \$175 million in four \$25 million steps, two to implement the policy moves and two to reflect usual seasonal increases. On average, borrowing ran about \$12 million above its allowance over the intermeeting period.

Chart 1



\*Observations are for the current, 1-, 2-, and 5-month contracts

### Yield Curve Movements



(3) Shorter-term market rates rose further when the System tightened in mid-April--although less than the quarter-point increase in the funds rate.<sup>3</sup> The mid-April action caught market participants somewhat unawares and was interpreted as putting policy tightening on a steeper trajectory with a higher endpoint, as can be seen in the upward revision to federal funds futures. Short-term rates continued to edge up in the latter part of the month. Nonetheless, there was little net movement in intermediate- and long-term rates over most of April, as data indicated subdued trends in costs and prices. However, in late April, rates across the maturity spectrum began rising again with the release of data suggesting to the market considerable additional vigor in economic activity. Weakness in the dollar over this period appeared to contribute to the upward movement in interest rates, because it implied additional price pressures in an economy operating at high levels of output and provided a rationale for more aggressive policy action.

(4) On balance, since the day before the March meeting, while the funds rate has been raised 50 basis points, other short-term interest rates have risen 60 to 85 basis points, intermediate rates 85 to 100 basis points, and long-term rates 60 to 75 basis points. The weakness in the dollar suggests that a portion of the increase in interest rates likely represents a market view that some of the developing price pressures will ultimately show through into higher actual inflation than previously anticipated. However, real rates probably also have risen, judging in part by declines in major stock price indexes of 5-1/2 to 10 percent over the intermeeting period. Some of the increase in real rates likely resulted from the effect of

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3. After the April 18 action, banks raised the prime rate another 50 basis points to 6-3/4 percent.

heightened uncertainty on term premiums. The upper right panel of the exhibit shows that expected volatility inferred from near-term options on bond prices rose sharply toward the end of March. The rise in expected volatility probably owed to the persistence of higher actual price volatility and to uncertainties about the course of monetary policy and inflation in the face of strong aggregate demand.

(5) Increased uncertainty premiums in U.S. interest rates, not fully matched by similar increases abroad, would reduce the demand for dollar assets, and thus could explain part of the downward pressure on the foreign exchange value of the dollar, despite increases in nominal interest differentials in favor of dollar assets. The dollar's weighted average exchange value declined a little more than 1 percent, on balance, over the intermeeting period. Monetary authorities in several key foreign countries eased their policies. Three-month interest rates declined 75 basis points in Germany, and the Bundesbank reduced its discount and Lombard rates 1/4 percentage point on April 14 and 1/2 percentage point on May 11. Nonetheless, bond rates rose 25 basis points in Germany. Three-month and ten-year rates declined 15 and 40 basis points, respectively, in Japan. The political disarray in Japan seemingly had the perverse effect of strengthening the yen against the dollar, on the grounds that the new minority government would have greater difficulties in implementing trade reforms; the yen would therefore have to appreciate to help reduce Japan's huge current account surplus. For most of the intermeeting period, the market believed that the U.S. government would welcome a further decline in the dollar against the yen and perhaps a weaker dollar generally. In part to dispel such impressions, the Desk intervened on two occasions to purchase dollars against yen and marks.

Both operations were accompanied by statements from the Secretary of the Treasury: The first emphasized countering disorderly markets; the second highlighted concerns of U.S. authorities with the dollar's weakness, which was viewed as inconsistent with economic fundamentals, and rejected an undervalued dollar as a U.S. policy objective. The second intervention was coordinated with a substantial number of foreign central banks. In total, U.S. authorities purchased \$1.950 million against yen and marks, equally divided between System and Treasury accounts.

(6) The broad monetary aggregates accelerated somewhat more than expected at the time of the March FOMC meeting. M2 rose at a 4 percent rate and M3 at a 2-1/2 percent rate over March and April, compared with projected growth rates of 3-1/4 and 1-3/4 percent, respectively. These increases left M2 somewhat below the midpoint of its 1-to-5 percent range for 1994 and M3 somewhat above the lower end of its 0-to-4 percent range. Data through early May suggest a slowing in the growth of both aggregates.

(7) The strengthening of the broad aggregates, which runs counter to what might normally be anticipated with rising interest rates, appears mainly attributable to a reassessment on the part of households of the attractiveness of investing in capital market instruments. Bond mutual funds suffered substantial net redemptions over March and April, and there was a corresponding surge in retail money funds; in addition, a slowing in runoffs of small time deposits may represent reduced shifting to stock and bond funds. The broad

money aggregates were also boosted in March and April by hefty increases in overnight and term repurchase agreements, which helped banks fund sizable net acquisitions of government securities. The rise in short-term opportunity costs does seem to have had its usual effect of restraining demand for a number of components of M2, especially liquid retail deposits. M1 expanded at only a 1-1/2 percent rate over March and April, held down by a drop in mortgage refinancings as well as the wider opportunity costs.<sup>4</sup> In addition, savings deposits (including MMDAs) registered a small decline in April.

(8) Bank credit expanded rapidly in March and April, reflecting strong growth in consumer and business loans, as well as the increase in securities holdings. An early May survey revealed continued increases in the willingness of banks to lend to households and a further easing of credit standards for businesses. The strength in bank credit in part represents a rise in the share of banks in household and business debt creation. As capital market prices have dropped, firms have cut back on bond and stock issuance; mounting external financing needs have been concentrated more on commercial banks.

(9) While the backup in rates has altered the pattern of financing and discouraged refinancing of outstanding obligations, it appears to have little affected nonfinancial debt growth. Debt of the nonfederal sectors has increased at a 4-1/2 percent rate in recent months, about in line with the more rapid pace of the second half of 1993. Overall business borrowing has remained subdued. Consumer credit is growing briskly, but household mortgage indebtedness appears

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4. Following the behavior of transactions deposits, total reserves fell at a 5-1/2 percent clip over March and April. With currency decelerating to a 10-1/4 percent growth pace, the monetary base slowed to a 7-3/4 percent average growth rate over the two months.

to be expanding only moderately. State and local governments have slowed their net debt issuance of late, owing to improved fiscal positions and considerable previous advance refunding. While federal debt growth surged in March, it now appears to be slowing, even after allowing for the usual tax-season swings, as fiscal restraint and strong economic performance reduce deficits. Total domestic nonfinancial debt is estimated to have grown at a 5 percent pace from the fourth quarter through March, leaving this aggregate somewhat above the lower bound of its 4-to-8 percent monitoring range for 1994.

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

	Feb.	Mar.	Apr.	93:Q4 to Apr. 94
<u>Money and credit aggregates</u>				
M1	5.4	4.0	-1.2	4.3
M2	-1.4	4.9	2.8	2.1
M3	-7.7	2.5	2.7	0.4
Domestic nonfinancial debt				
Total	4.4	5.8	--	5.4
Federal	4.9	9.1	--	7.2
Nonfederal	4.3	4.6	--	4.7
Bank credit	5.5	10.4	10.4	8.0
<u>Reserve measures<sup>2</sup></u>				
Nonborrowed reserves <sup>3</sup>	3.3	-3.1	-8.9	0.2
Total reserves	3.2	-3.4	-7.5	0.1
Monetary base	13.4	9.3	6.1	9.5
Memo: (Millions of dollars)				
Adjustment plus seasonal borrowing	70	55	124	--
Excess reserves	1140	967	1139	--

1. Figures on domestic nonfinancial sector debt are from 93:Q4 to March.
2. 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.
3. Includes "other extended credit" from the Federal Reserve.

### Policy Alternatives

(10) Three monetary policy alternatives are presented below for Committee consideration. Under alternative B, federal funds would continue to trade around 3-3/4 percent, in association with the allowance for adjustment plus seasonal borrowing remaining initially at \$175 million.<sup>5</sup> Under alternative C, the federal funds rate would move up 1/4 percentage point (one-half the usual adjustment shown in previous bluebooks for "alternative C") to 4 percent, effectuated by increasing the initial borrowing allowance to \$200 million. Under alternative D, the federal funds rate would be raised to 4-1/4 percent, either by increasing the initial borrowing allowance to \$225 million or by raising the discount rate to 3-1/2 percent, while keeping the initial allowance for discount window borrowing at \$175 million.

(11) In the staff's economic forecast, the federal funds rate is assumed to be raised gradually to 4-1/2 percent by the fall of this year and maintained at that level through the end of next year. Long-term interest rates are seen as holding close to their most recent levels in the face of the assumed policy tightenings, but subsequently to drift lower, as market participants come to realize that economic trends imply lower inflation and a lesser degree of needed policy restraint than now built into market rates. In effect, this funds rate path is broadly consistent with the attainment of "policy neutrality," in that real GDP, after moving into the vicinity of its estimated potential in the current quarter, grows about in line with its potential over the next six quarters. The unemployment rate

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5. Later in the intermeeting period, upward technical adjustments to the borrowing allowance may be required to account for the normal upswing in seasonal credit.

remains near its estimated natural rate of about 6-1/2 percent, and core CPI inflation runs just below a 3 percent rate through the end of next year. Variations in the timing and size of the steps taken to raise the funds rate to 4-1/2 percent by this autumn probably would not have a persistent influence on economic activity but could affect inflation expectations for a time and the near-term paths of financial market prices.

(12) Compared with the staff's assessment, financial market participants now appear to be anticipating appreciably more Federal Reserve tightening by the fall, judging by the rate of 5-1/4 percent on federal funds futures for October. Many in the market expect the Committee to increase the funds rate 50 basis points at this meeting, though others anticipate only a 25 basis point increase, and the federal funds futures quote is in between. Very short-term rates might thus increase slightly under alternative D. The behavior of rates on instruments of a few months' maturity or longer would depend importantly on whether the market interpreted the larger increase of alternative D as indicating a steeper trajectory of future policy actions, and perhaps the need for greater cumulative tightening. If expectations were to ratchet up in this manner, as appeared to have been the case in some of the tightenings earlier this year, there could be sizable hikes along the maturity spectrum. However, several factors suggest that the market may react more favorably this time. For one, such a move--larger than recent ones--might assuage concerns that the Federal Reserve was "falling behind the curve." A rise in the foreign exchange value of the dollar, which would be expected under this alternative, would also help to reduce inflation concerns. Moreover, an action of this magnitude coupled with a discount rate

increase, depending perhaps on the wording of the associated announcement, might be seen as suggesting that the Federal Reserve thought it had reached the neighborhood of "neutrality." If the action is seen this way, policy would be expected to be kept on hold for a while, or at least to tighten more slowly and be more dependent on incoming data. With one source of uncertainty diminished, at least for a time, investors who had been avoiding longer-term instruments pending the Federal Reserve's action might be tempted to extend maturities. Bond yields could still back up somewhat in the aftermath of an announcement of the Federal Reserve's choice of alternative D, but these other influences should limit any increase and work to reduce yields over time, provided incoming data on the economy indicate a moderate path for activity, in line with the staff forecast.

(13) The case for increasing the intended federal funds rate only 25 basis points as under alternative C would seem to hinge on the judgment that financial market participants have exaggerated the likely strength of future spending relative to the economy's potential and hence of prospective inflation pressures. In this view, taking the fundamentals reasonably into account, the markets have gotten "ahead of the curve" and the risk of disappointing them should not be allowed to divert the Federal Reserve from a gradual course of 25-basis-point adjustments in the stance of policy toward neutrality. With the location of a neutral funds rate itself a moving target--and lower to the extent that real long-term interest rates are higher--such an approach would allow more time to assess the needed federal funds rate increases as new information on the economy and prices becomes available. Short-term rates likely would edge off immediately after a modest policy tightening. The initial reaction in capital and foreign

exchange markets could be adverse if the small size of the move were seen as signalling a reluctance to move aggressively to head off an inflationary buildup. However, the odds on such a reaction may have been reduced by the recent favorable price data. In this context, market participants might be more inclined to interpret the smaller move as sufficient to counter coming inflation pressures and to project a lower trajectory of short-term rates, which would pass through to lower longer-term rates.

(14) The case for standing pat, alternative B, is a more extreme version of the rationale for alternative C: In this case, the market assessment, and even that of the staff, of the strength of aggregate demand would be judged to be seriously off the mark, perhaps because the rise in long-term rates, along with the decline in household wealth, will have a more significant restraining influence on aggregate demand. Choice of alternative B would come as a considerable surprise--and disappointment--to financial markets; very short-term interest rates would be likely to fall appreciably, but this alternative risks a significant sell-off in the bond market before weakness in aggregate demand becomes apparent.

(15) Material differences in nominal spending and overall borrowing under the three policy alternatives outlined above are unlikely to emerge in the next several months. Under all three alternatives, the debt of domestic nonfinancial sectors should expand at around a 5 percent rate from March through September, matching its pace this year through March. A pickup in growth of nonfederal debt is expected to fill in the gap left by a softening of federal government borrowing. Higher long-term rates and lower price-earnings

ratios present a less favorable environment for balance sheet restructuring, but borrowers will continue to find banks and other intermediaries to be willing lenders. Business borrowing should remain well above last year's meager pace, as corporate capital spending rises appreciably further relative to internally generated funds. Households too are likely to continue taking on consumer debt more quickly than they did on average last year, although with recent increases in mortgage rates restraining housing activity, mortgage debt expansion is not anticipated to outpace last year's performance.

(16) Projected growth rates of the monetary aggregates from April to September under alternatives B and D are shown on the table below. (More detailed data are presented in the table and charts on the following pages.) While we foresee M1 growth picking up some, at

	<u>Alt. B</u>	<u>Alt. D</u>
Growth from April to September		
M2	1-1/2	1-1/4
M3	1	3/4
M1	3-3/4	3

around 3 to 4 percent, it remains damped relative to spending. The recent increases in opportunity costs on liquid retail deposits arising from the previous tightenings in the stance of monetary policy, and under alternative D from an additional firming move as well, will serve to hold back growth of M1 and some of the other components of M2 and M3. With any further backup in long-term interest rates not expected to be sustained under either policy alternative, another surge in outflows from bond mutual funds does not appear to be in the cards. As a consequence, the effects of higher opportunity costs show through

Alternative Levels and Growth Rates for Key Monetary Aggregates

	M2		M3		M1		
	Alt. B	Alt. D	Alt. B	Alt. D	Alt. B	Alt. D	
<b>Levels in Billions</b>							
Mar-94	3579.4	3579.4	4210.6	4210.6	1142.4	1142.4	
Apr-94	3587.8	3587.8	4220.0	4220.0	1141.3	1141.3	
May-94	3593.4	3592.2	4217.5	4216.8	1143.8	1143.2	
Jun-94	3597.3	3594.6	4221.4	4219.5	1146.6	1145.3	
Jul-94	3602.1	3598.2	4226.3	4223.4	1150.1	1148.1	
Aug-94	3607.2	3602.4	4231.2	4227.2	1154.1	1151.5	
Sep-94	3612.3	3606.9	4236.5	4231.8	1159.0	1155.9	
<b>Monthly Growth Rates</b>							
Mar-94	4.9	4.0	2.5	2.5	4.0	4.0	
Apr-94	2.8	2.8	2.7	2.7	-1.2	-1.2	
May-94	1.9	1.5	-0.7	0.9	2.6	2.0	
Jun-94	1.3	0.8	1.1	0.8	3.0	2.2	
Jul-94	1.6	1.2	1.4	1.1	3.6	2.9	
Aug-94	1.7	1.4	1.4	1.1	4.2	3.6	
Sep-94	1.7	1.5	1.5	1.3	5.1	4.6	
<b>Quarterly Averages</b>							
94 Q1	1.8	1.8	0.1	0.1	6.0	6.0	
94 Q2	2.5	2.3	0.6	0.5	2.0	1.8	
94 Q3	1.6	1.2	1.1	0.8	3.7	3.0	
<b>Growth Rate</b>							
From	To						
Dec-93	Mar-94	1.8	1.8	-1.3	-1.3	5.0	5.0
Mar-94	Jun-94	2.0	1.7	1.0	0.8	1.5	1.0
Jun-94	Sep-94	1.7	1.4	1.4	1.2	4.3	3.7
Dec-93	Apr-94	2.1	2.1	-0.3	-0.3	3.4	3.4
Apr-94	Sep-94	1.6	1.3	0.9	0.7	3.7	3.1
93 Q4	Apr-94	2.2	2.2	0.4	0.4	4.3	4.3
93 Q4	Jun-94	2.0	1.9	0.3	0.3	3.9	3.7
93 Q4	Sep-94	1.9	1.8	0.7	0.5	4.0	3.7
93 Q4	94 Q3	1.5	1.3	0.4	0.3	2.9	2.7
<b>1994 Target Ranges:</b>		1.0 to 5.0		0.0 to 4.0			

Chart 2

# ACTUAL AND TARGETED M2

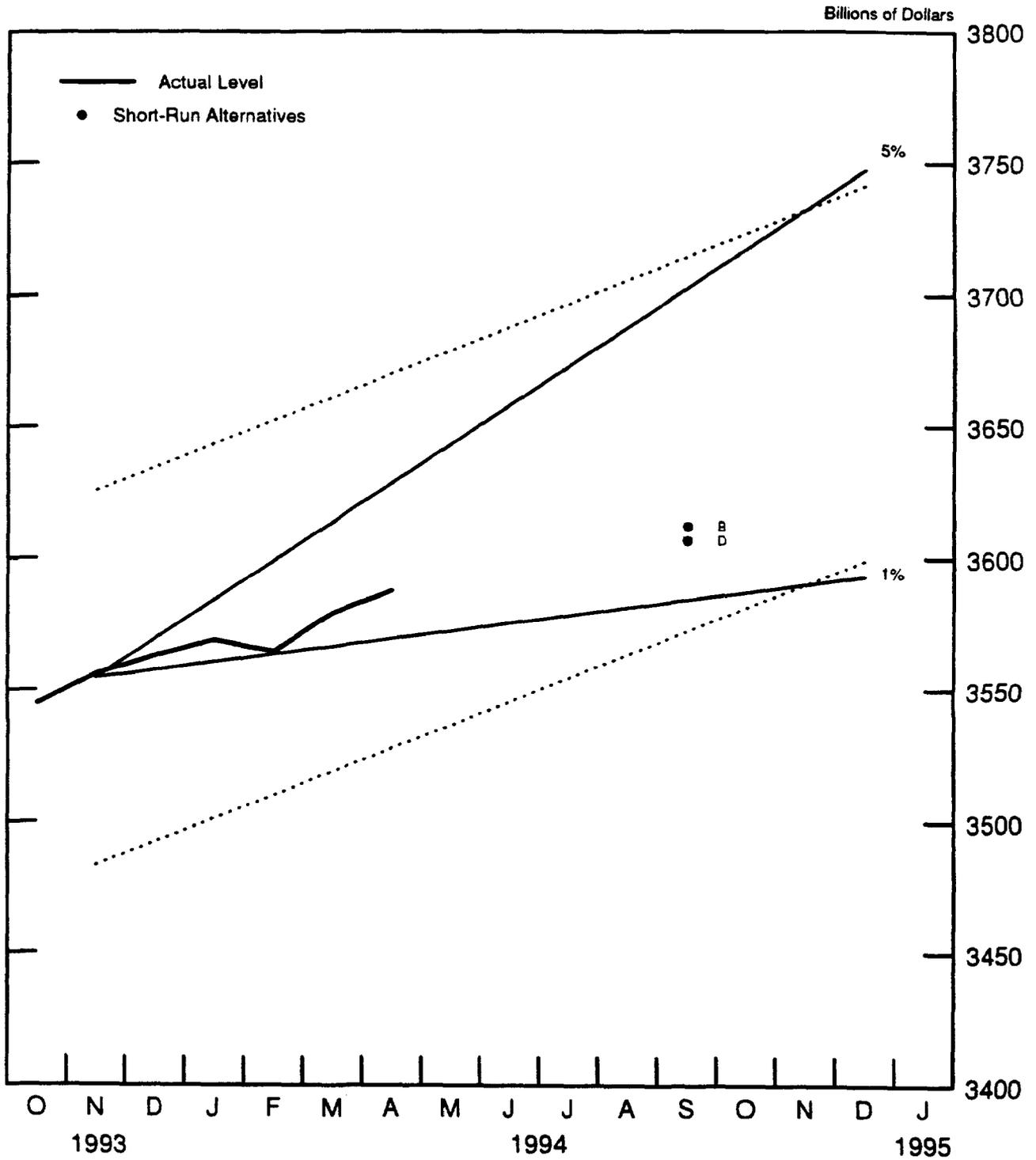


Chart 3

# ACTUAL AND TARGETED M3

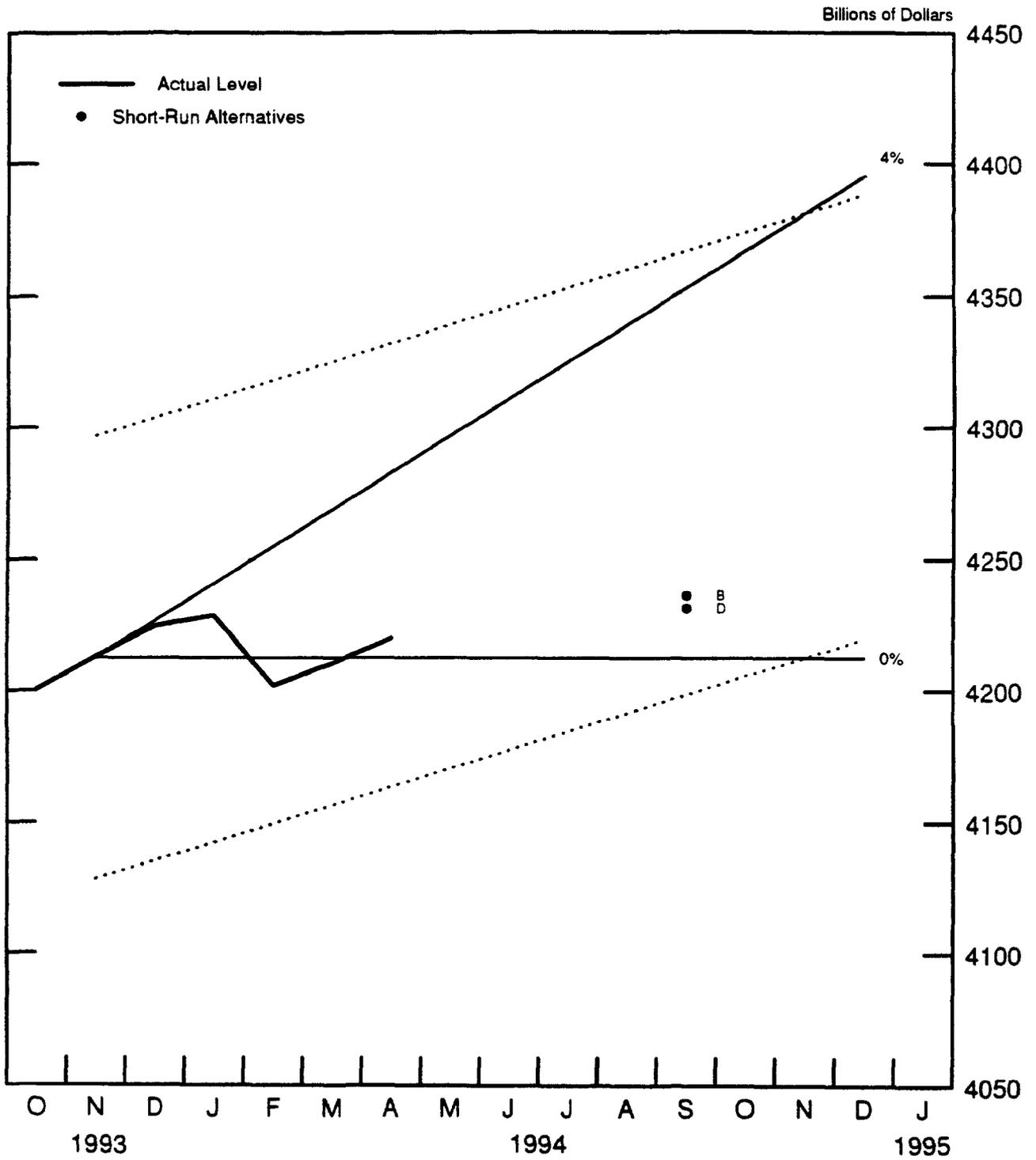


Chart 4

# M1

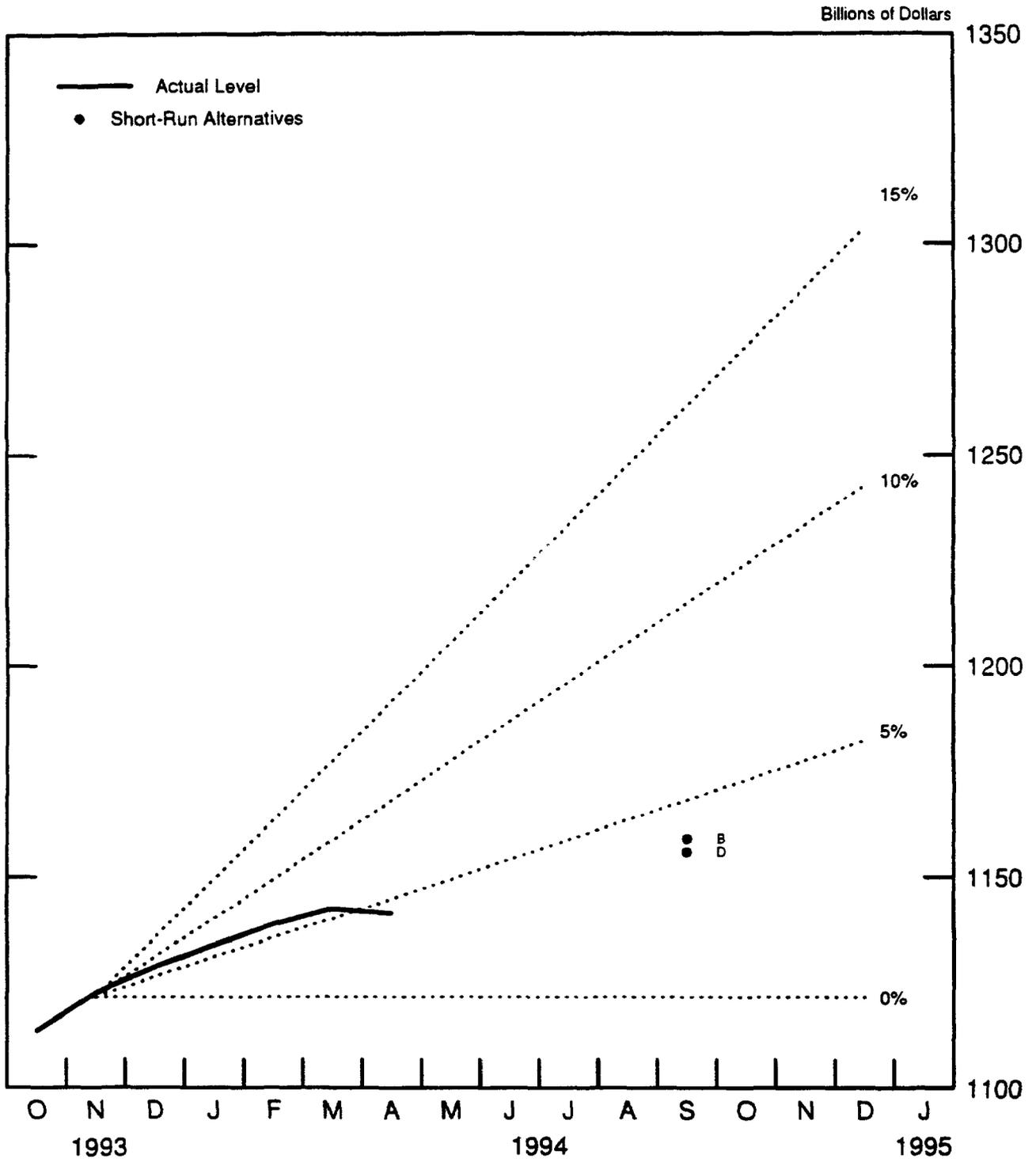
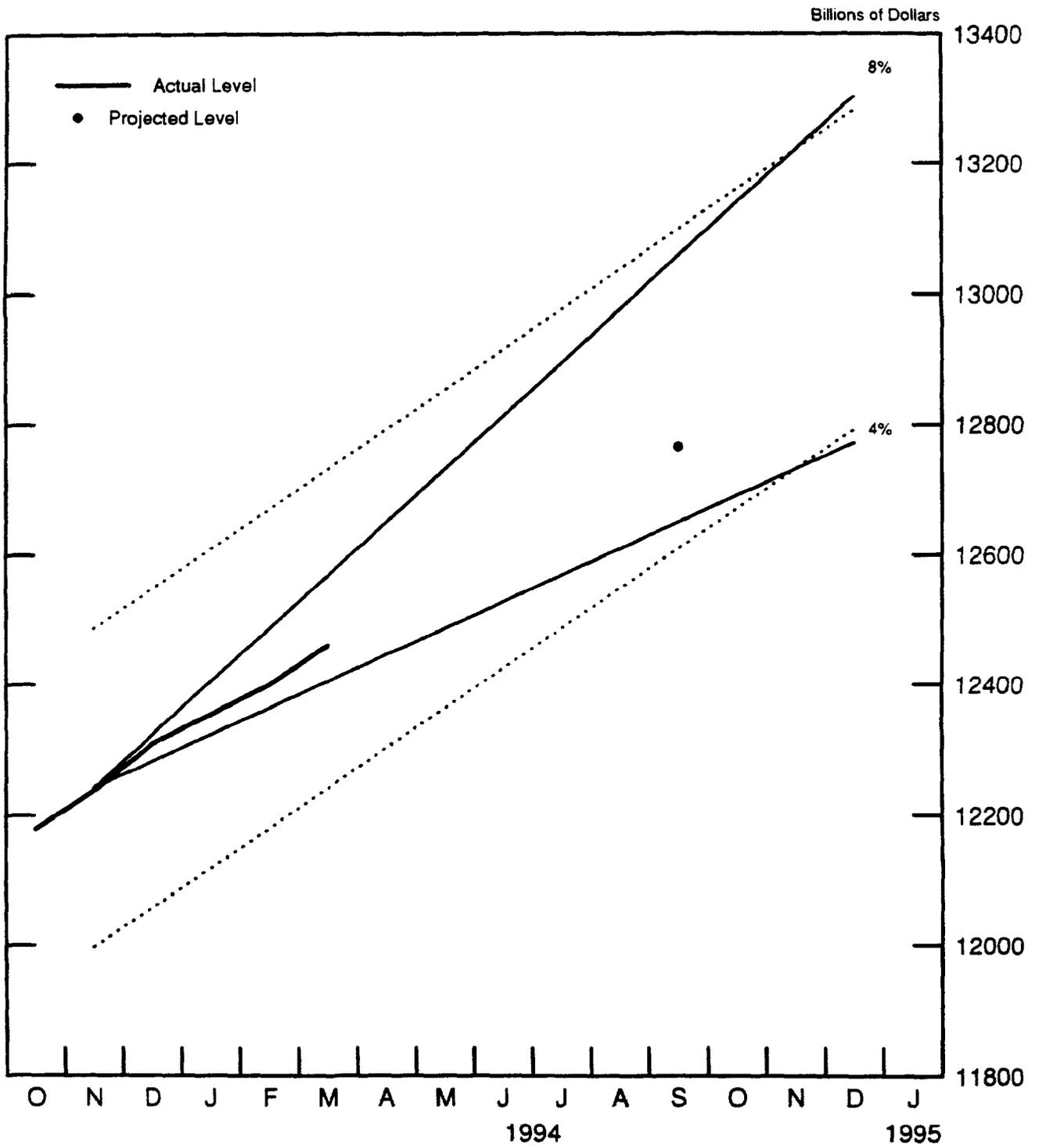


Chart 5  
DEBT



to the growth of the broader aggregates, contributing to an appreciable slowing from the stepped-up pace of March and April. Under both alternatives, growth from the fourth quarter of last year to September will be at almost a 2 percent rate for M2 and at less than a 3/4 percent rate for M3.

Directive Language

(17) Draft language for the operational paragraph, including the usual options and updating, is shown below. In light of the recommendations for a discount rate increase from all twelve Federal Reserve Banks, wording is given in brackets in the first sentence should the Committee wish to make reference in the directive to a possible change in the discount rate. This suggested wording is similar to that used by the Committee in comparable situations in the past. Of course, the minutes would explain the Committee's approach to implementation and its rationale.

OPERATIONAL PARAGRAPH

In the implementation of policy for the immediate future, the Committee seeks to increase slightly (SOMEWHAT)/maintain/DECREASE SLIGHTLY (SOMEWHAT) the existing degree of pressure on reserve positions. [TAKING ACCOUNT OF A POSSIBLE INCREASE IN THE DISCOUNT RATE]. In the context of the Committee's long-run objectives for price stability and sustainable economic growth, and giving careful consideration to economic, financial, and monetary developments, slightly (SOMEWHAT) greater reserve restraint MIGHT/WOULD or slightly (SOMEWHAT) lesser reserve restraint might/WOULD be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with moderate MODEST growth in M2 and M3 over COMING MONTHS the first half of 1994.

**SELECTED INTEREST RATES**  
(percent)

	Short Term								Long Term							
	federal funds	Treasury bills secondary market			CDs secondary market	comm paper	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 month	1 month	7	8	3-year	10 year	30-year	12	13	secondary market	primary market	
														fixed-rate	fixed-rate	ARM
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
93 -- High	3.24	3.12	3.27	3.48	3.36	3.44	2.92	6.00	5.06	6.73	7.46	8.28	6.44	8.17	8.14	5.36
-- Low	2.87	2.82	2.94	3.07	3.06	3.07	2.59	6.00	4.07	5.24	5.83	6.79	5.41	6.72	6.74	4.14
94 -- High	3.76	4.18	4.68	5.14	4.61	4.29	3.24	6.75	6.50	7.34	7.52	8.51	6.60	8.98	8.77	5.54
-- Low	2.97	2.94	3.12	3.35	3.11	3.11	2.68	6.00	4.44	5.70	6.25	7.16	5.49	7.02	6.97	4.12
<b>Monthly</b>																
May 93	3.00	2.96	3.07	3.23	3.10	3.11	2.62	6.00	4.40	6.04	6.92	7.75	5.92	7.48	7.47	4.65
Jun 93	3.04	3.07	3.20	3.39	3.21	3.19	2.62	6.00	4.53	5.96	6.81	7.59	5.87	7.41	7.42	4.64
Jul 93	3.06	3.04	3.16	3.33	3.16	3.15	2.64	6.00	4.43	5.81	6.63	7.43	5.80	7.19	7.21	4.56
Aug 93	3.03	3.02	3.14	3.30	3.14	3.14	2.64	6.00	4.36	5.68	6.32	7.16	5.67	7.05	7.11	4.48
Sep 93	3.09	2.95	3.06	3.22	3.12	3.14	2.65	6.00	4.17	5.36	6.00	6.94	5.50	6.89	6.92	4.36
Oct 93	2.99	3.02	3.12	3.25	3.24	3.14	2.65	6.00	4.18	5.33	5.94	6.91	5.48	6.85	6.83	4.25
Nov 93	3.02	3.10	3.26	3.42	3.35	3.15	2.66	6.00	4.50	5.72	6.21	7.25	5.71	7.32	7.16	4.24
Dec 93	2.96	3.06	3.23	3.45	3.26	3.35	2.70	6.00	4.54	5.77	6.25	7.28	5.59	7.27	7.17	4.23
Jan 94	3.05	2.98	3.15	3.39	3.15	3.14	2.71	6.00	4.48	5.75	6.29	7.24	5.54	7.12	7.06	4.21
Feb 94	3.25	3.25	3.43	3.69	3.43	3.39	2.73	6.00	4.83	5.97	6.49	7.45	5.65	7.35	7.15	4.20
Mar 94	3.34	3.50	3.78	4.11	3.77	3.63	2.86	6.06	5.40	6.48	6.91	7.82	6.16	7.96	7.68	4.55
Apr 94	3.56	3.68	4.09	4.57	4.01	3.81	3.03	6.45	5.99	6.97	7.27	8.20	6.48	8.55	8.32	4.96
<b>Weekly</b>																
Jan 26 94	2.97	2.94	3.12	3.35	3.11	3.12	2.68	6.00	4.44	5.75	6.31	7.16	5.50	7.02	6.97	4.16
Feb 2 94	3.17	2.98	3.16	3.39	3.14	3.11	2.68	6.00	4.47	5.73	6.26	7.35	5.49	7.15	6.97	4.12
Feb 9 94	3.20	3.22	3.37	3.66	3.36	3.31	2.71	6.00	4.75	5.93	6.39	7.40	5.58	7.30	7.21	4.25
Feb 16 94	3.25	3.26	3.41	3.69	3.45	3.45	2.75	6.00	4.81	5.89	6.44	7.54	5.64	7.37	7.11	4.18
Feb 23 94	3.25	3.31	3.51	3.76	3.50	3.44	2.77	6.00	4.94	6.07	6.61	7.62	5.88	7.56	7.32	4.25
Mar 2 94	3.28	3.41	3.63	3.88	3.66	3.52	2.79	6.00	5.12	6.23	6.75	7.73	6.07	7.87	7.51	4.48
Mar 9 94	3.25	3.52	3.74	4.06	3.77	3.61	2.81	6.00	5.28	6.36	6.84	7.80	6.13	7.94	7.63	4.51
Mar 16 94	3.19	3.53	3.80	4.10	3.76	3.61	2.83	6.00	5.36	6.46	6.90	7.81	6.06	7.93	7.76	4.60
Mar 23 94	3.31	3.49	3.81	4.13	3.80	3.64	2.86	6.00	5.40	6.46	6.87	7.91	6.16	8.08	7.80	4.60
Mar 30 94	3.49	3.49	3.81	4.18	3.79	3.67	2.93	6.25	5.57	6.66	7.02	8.04	6.39	8.64	8.04	4.65
Apr 6 94	3.69	3.60	3.94	4.45	3.95	3.77	2.97	6.25	5.88	6.96	7.27	8.22	6.55	8.43	8.47	4.96
Apr 13 94	3.37	3.55	3.96	4.45	3.88	3.72	3.00	6.25	5.88	6.90	7.23	8.25	6.50	8.52	8.26	4.96
Apr 20 94	3.59	3.67	4.11	4.59	4.00	3.82	3.04	6.39	6.06	7.05	7.34	8.18	6.45	8.48	8.49	5.06
Apr 27 94	3.59	3.78	4.21	4.64	4.10	3.88	3.13	6.75	6.01	6.89	7.17	8.27	6.42	8.69	8.32	5.15
May 4 94	3.76	3.95	4.37	4.86	4.22	3.95	3.15	6.75	6.21	7.09	7.33	8.51	6.43	8.89	8.53	5.25
May 11 94	3.70	4.18	4.68	5.14	4.61	4.29	3.24	6.75	6.50	7.34	7.52	8.46	6.60	8.98	8.77	5.54
<b>Daily</b>																
May 6 94	3.78	4.18	4.63	5.12	4.55	4.23	--	6.75	6.50	7.35	7.53	--	--	--	--	--
May 12 94	3.78	4.13	4.71	5.18	4.67	4.37	--	6.75	6.53	7.36	7.57	--	--	--	--	--
May 13 94	3.80p	4.12	4.67	5.12	4.67	4.36	--	6.75	6.43	7.29	7.50	--	--	--	--	--

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

MAY 16, 1994

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 <sup>1</sup>	U S government <sup>2</sup>	other <sup>2</sup>	total <sup>2</sup>
			In M2	In M3 only						
	1	2	3	4	5	6	7	8	9	10
<b>Annual growth rates(%):</b>										
Annually (Q4 to Q4)										
1991	7.9	2.9	1.2	-6.0	1.2	0.4	3.5	11.3	2.6	4.6
1992	14.3	1.9	-2.4	-6.3	0.5	1.4	3.7	10.7	3.1	5.0
1993	10.5	1.3	-2.4	-3.6	0.5	0.9	4.9	8.4	3.6	4.9
<b>Quarterly Average</b>										
1993-2nd QTR.	10.7	2.2	-1.4	1.6	2.1	3.1	6.2	10.4	2.4	4.5
1993-3rd QTR.	12.0	2.4	-1.7	-6.7	1.0	0.9	6.8	9.2	4.5	5.7
1993-4th QTR.	9.4	1.9	-1.4	3.7	2.2	1.5	3.1	5.5	4.8	5.0
1994-1st QTR.	6.0	1.8	-0.1	-9.2	0.1	2.5	6.8	7.0	4.7	5.3
<b>Monthly</b>										
1993-APR.	8.0	1.1	-1.8	7.6	2.1	4.1	3.0	10.7	2.6	4.8
MAY	23.6	8.2	1.6	3.3	7.4	7.8	9.5	10.2	2.6	4.6
JUNE	10.0	2.3	-1.0	-12.1	0.1	0.1	8.9	12.2	4.5	6.5
JULY	11.4	1.7	-2.6	-10.6	-0.3	-0.9	9.0	7.4	5.2	5.8
AUG.	9.4	0.7	-3.1	-4.6	-0.1	2.1	1.7	9.1	4.2	5.5
SEP.	10.7	2.7	-0.9	1.5	2.5	-1.6	3.1	7.0	4.6	5.2
OCT.	9.0	0.5	-3.3	7.2	1.5	1.8	0.9	-1.8	5.2	3.3
NOV.	9.7	3.8	1.0	2.2	3.5	2.5	6.2	9.2	4.5	5.7
DEC.	6.4	2.3	0.4	9.1	3.4	4.3	5.2	13.3	4.8	7.1
1994-JAN.	5.4	2.0	0.4	-3.3	1.2	4.8	7.5	2.8	4.9	4.4
FEB.	5.4	-1.4	-4.6	-41.3	-7.7	-2.2	5.5	4.9	4.3	4.4
MAR.	4.0	4.9	5.4	-11.3	2.5	1.7	10.4	9.1	4.7	5.8
APR. p	-1.2	2.8	4.7	1.7	2.7		10.4			
<b>Levels (\$Billions):</b>										
<b>Monthly</b>										
1993-DEC.	1128.4	3563.1	2434.7	661.7	4224.8	5122.3	3104.6	3327.9	8981.8	12309.6
1994-JAN.	1133.5	3569.0	2435.5	659.9	4228.9	5142.7	3124.0	3335.6	9018.8	12354.4
FEB.	1138.6	3564.7	2426.1	637.2	4201.9	5133.3	3138.3	3349.3	9050.9	12400.2
MAR.	1142.4	3579.4	2437.0	631.2	4210.6	5140.4	3165.6	3374.7	9086.0	12460.6
APR. p	1141.3	3587.8	2446.5	632.1	4220.0		3193.1			
<b>Weekly</b>										
1994-APR. 4	1148.0	3582.6	2434.6	631.9	4214.5					
11	1143.7	3595.3	2451.6	628.5	4223.7					
18	1137.6	3588.7	2451.1	639.6	4228.2					
25 p	1136.4	3582.9	2446.5	632.7	4215.6					
MAY 2 p	1138.7	3581.5	2442.8	626.4	4208.0					

1. Adjusted for breaks caused by reclassifications.

2. Debt data are on a monthly average basis, derived by averaging end-of-month levels of adjacent months, and have been adjusted to remove discontinuities.

p preliminary  
pe preliminary estimate

## Components of Money Stock and Related Measures

Seasonally adjusted unless otherwise noted

MAY 16, 1994

Period	Currency	Demand deposits	Other checkable deposits	Overnight RPs and Euro-dollars NSA <sup>1</sup>	Savings deposits <sup>2</sup>	Small denomination time deposits <sup>3</sup>	Money market mutual funds		Large denomination time deposits <sup>5</sup>	Term RP's NSA <sup>1</sup>	Term Euro-dollars NSA <sup>1</sup>	Savings bonds	Short-term Treasury securities	Commercial paper <sup>1</sup>	Bankers acceptances
							general purpose and broker/dealer <sup>4</sup>	Institutions only							
							7	8							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
<b>Levels (\$Billions):</b>															
<b>Annually (4th Qtr.)</b>															
1991	265.6	286.3	328.8	77.5	1027.8	1082.8	369.7	174.4	433.1	74.7	60.7	137.0	321.1	334.0	24.5
1992	289.7	337.1	380.1	81.2	1177.9	883.0	354.0	206.5	365.3	80.9	47.0	154.4	327.7	366.3	20.5
1993	319.5	362.1	411.9	89.2	1212.1	788.1	346.7	195.4	340.0	94.5	46.4	170.9	322.3	385.2	15.5
<b>Monthly</b>															
1993-APR.	301.8	349.0	388.2	77.2	1185.5	839.4	345.9	196.3	348.8	88.9	48.7	163.6	341.8	367.1	19.3
MAY	304.4	358.8	396.4	75.2	1195.1	832.4	348.5	198.0	349.2	89.8	48.7	164.7	343.4	371.8	19.2
JUNE	307.2	362.2	399.2	78.5	1200.4	823.9	347.5	194.7	345.3	92.8	45.5	165.9	344.2	370.9	18.5
JULY	309.7	366.4	402.8	81.1	1202.1	814.4	346.6	192.6	341.8	96.4	41.9	167.1	341.9	370.4	17.4
AUG.	312.4	370.9	404.2	82.1	1205.9	806.2	345.5	190.1	341.6	96.0	44.1	168.2	341.7	379.5	16.5
SEP.	315.4	375.4	406.6	85.4	1208.4	799.4	345.0	190.8	340.4	95.6	45.2	169.2	326.3	378.4	16.4
OCT.	317.6	378.4	409.5	88.1	1208.8	793.5	344.4	194.3	341.6	94.2	44.9	170.1	321.5	384.7	16.4
NOV.	319.5	383.2	411.8	89.1	1211.9	788.0	347.0	194.8	339.4	94.0	48.5	170.8	321.0	384.1	15.3
DEC.	321.4	384.8	414.3	90.3	1215.5	782.8	348.8	197.0	338.9	95.3	45.7	171.7	324.3	386.8	14.7
1994-JAN.	325.2	388.3	412.0	93.3	1220.3	777.2	347.8	192.7	341.1	91.2	44.5	172.7	334.6	391.6	15.0
FEB.	329.2	390.3	411.2	90.8	1220.9	772.4	343.7	176.9	335.1	89.3	47.2	173.4	339.7	403.0	15.3
MAR.	332.4	390.0	411.9	95.9	1221.9	769.5	348.6	177.4	332.4	91.9	44.8	174.1	340.0	400.1	15.5
APR. p	334.8	388.9	409.4	93.3	1220.2	767.9	361.9	177.0	330.7	94.5	46.0				

1. Net of money market mutual fund holdings of these items.
2. Includes money market deposit accounts.
3. Includes retail repurchase agreements. All IRA and Keogh accounts at commercial banks and thrift institutions are subtracted from small time deposits
4. Excludes IRA and Keogh accounts.
5. Net of large denomination time deposits held by money market mutual funds, depository institutions, U.S. government, and foreign banks and official institutions.

p preliminary

**NET CHANGES IN SYSTEM HOLDINGS OF SECURITIES<sup>1</sup>**  
Millions of dollars, not seasonally adjusted

May 13, 1994

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					
1991	20,038	1,000	19,038	3,043	6,583	1,280	375	---	11,282	292	27,726	-1,614
1992	13,086	1,600	11,486	1,096	13,118	2,818	2,333	---	19,365	632	30,219	-13,215
1993	17,717	468	17,249	1,223	10,350	4,168	3,457	---	19,198	1,072	35,374	5,974
1993 ---Q1	---	---	---	279	1,441	716	705	---	3,141	289	2,851	-461
---Q2	7,749	---	7,749	244	2,490	1,147	1,110	---	4,990	91	12,648	10,624
---Q3	1,268	---	1,268	511	3,700	1,297	817	---	6,326	526	7,067	-8,644
---Q4	8,700	468	8,232	189	2,719	1,008	826	---	4,742	166	12,807	4,455
1994 ---Q1	2,164	---	2,164	147	1,413	1,103	618	616	2,665	411	4,418	-11,663
1993 May	349	---	349	---	---	---	---	---	---	41	308	4,112
June	7,280	---	7,280	---	---	---	---	---	---	22	7,258	12,027
July	---	---	---	---	200	---	---	---	200	366	-166	-14,435
August	902	---	902	100	1,100	500	100	---	1,800	125	2,577	4,528
September	366	---	366	411	2,400	797	717	---	4,326	35	4,656	1,262
October	1,396	468	927	---	---	---	---	---	---	70	857	-6,723
November	5,911	---	5,911	---	100	---	---	---	100	15	5,996	7,232
December	1,394	---	1,394	189	2,619	1,008	826	---	4,642	81	5,954	3,947
1994 January	---	---	---	---	---	---	---	616	-616	202	-817	-7,757
February	1,264	---	1,264	---	---	---	---	---	---	102	1,163	-3,946
March	900	---	900	147	1,413	1,103	618	---	3,281	108	4,073	40
April	1,101	---	1,101	209	2,817	1,117	896	440	4,599	180	5,520	8,208
Weekly												
January 19	---	---	---	---	---	---	---	616	-616	---	-616	4,336
26	---	---	---	---	---	---	---	---	---	85	-85	-6,244
February 2	---	---	---	---	---	---	---	---	---	---	---	11,046
9	---	---	---	---	---	---	---	---	---	---	---	-13,244
16	---	---	---	---	---	---	---	---	---	55	-55	1,927
23	246	---	246	---	---	---	---	---	---	---	246	4,096
March 2	1,197	---	1,197	---	---	---	---	---	---	145	1,052	1,114
9	100	---	100	---	---	---	---	---	---	---	100	-3,656
16	55	---	55	---	---	---	---	---	---	---	55	4,446
23	42	---	42	147	1,413	1,103	618	---	3,281	---	3,324	-4,258
30	351	---	351	---	---	---	---	---	---	10	341	1,314
April 6	370	---	370	---	---	---	---	---	---	50	320	8,695
13	235	---	235	---	---	---	---	---	---	75	160	6,025
20	669	---	669	209	2,817	1,117	896	440	4,599	4	5,264	2,333
27	---	---	---	---	---	---	---	---	---	51	-51	3,059
May 4	---	---	---	---	---	---	---	---	---	---	---	3,490
11	---	---	---	---	---	---	---	---	---	25	-25	-2,299
Memo: LEVEL (bil. \$) <sup>6</sup>												
May 11			171.2	199.1	85.2	25.0	33.6		342.9		354.1	6.2

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
1.6	1.8	0.6	0.0	4.0