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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

November 10, 1994

MONETARY POLICY ALTERNATIVES

Recent Developments

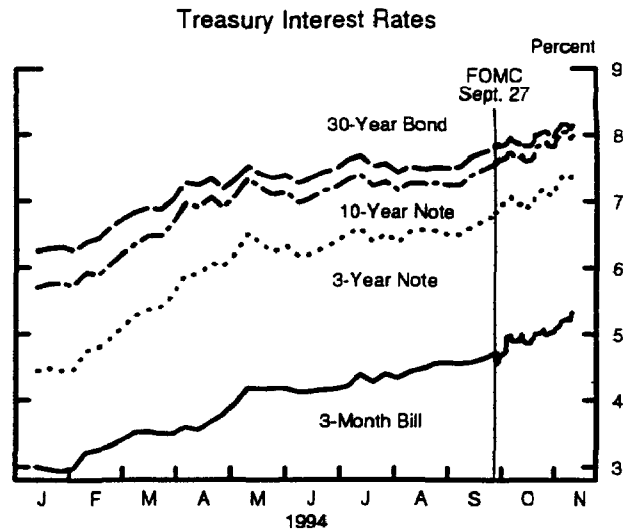
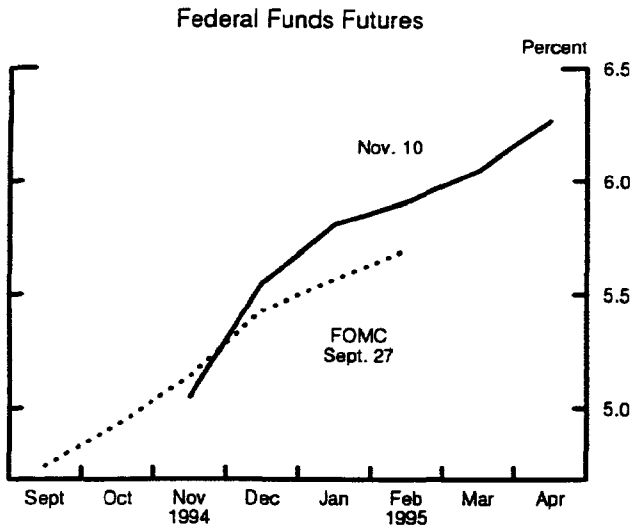
(1) The System left the intended degree of reserve pressure unchanged during the period since the FOMC meeting on September 27. Apart from some tightness in the reserves market around the end of the third quarter, federal funds traded close to their expected level of 4-3/4 percent and averaged 4.77 percent for the period as a whole. The allowance for adjustment and seasonal borrowing was reduced \$250 million in six steps during the intermeeting period to \$225 million in view of the typical autumn decline in the demand for seasonal credit at the discount window. Actual borrowing averaged close to its allowance over the period.

(2) Other interest rates rose appreciably over the intermeeting period in response to economic data generally indicating sustained momentum in aggregate demand, high levels of output relative to potential, and persistent signs of price pressures at early stages of production. In light of these developments, market participants have revised upward their expectations of monetary tightening as the expansion proceeds. As to their near-term outlook, quotes on federal funds futures, shown in the upper left-hand panel of Chart 1, suggest that markets now incorporate noticeably higher federal funds rates than in late September.<sup>1</sup> Most short- and long-term term rates jumped 1/4 to 1/2 percentage point, bringing rates on thirty-year Treasuries above 8 percent and yields on fixed-rate mortgages above 9 percent for the first time since early 1992. The largest advances were registered

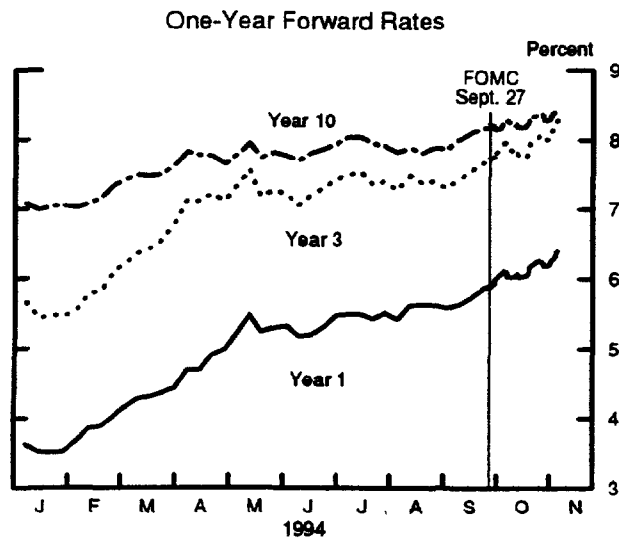
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1. Quotes on federal funds futures and other short-term market interest rates currently appear to incorporate moderate year-end premiums.

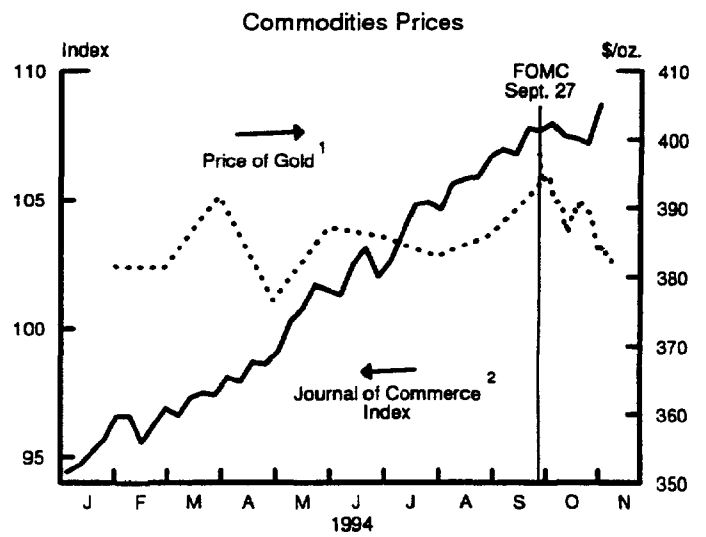
Chart 1



Weekly. Daily after Sept. 27.



Weekly. Daily after Sept. 27.



1. Weekly. Daily after Sept. 27.

2. Weekly.

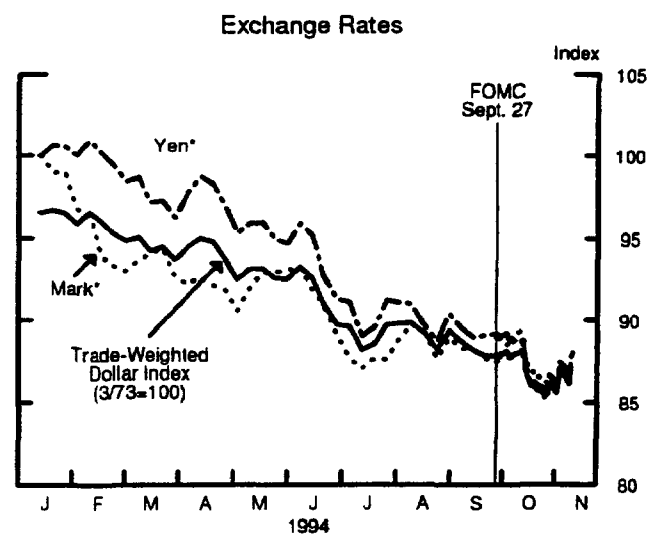
### Surveys of Inflation Expectations

	<u>Mar</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>
<i>Short-term</i> <sup>1</sup>				
Michigan	4.4	4.6	3.9	4.3 <sup>P</sup>
Blue Chip	3.2	3.4	3.5	3.6
<i>Long-term</i> <sup>2</sup>				
Michigan	5.4	4.9	4.6	4.1 <sup>P</sup>
Blue Chip	3.4	--	3.5	--

1. One-year.

2. Michigan: Five- to ten-year.  
Blue Chip: ten-year.

p—preliminary



\* Index, Jan 1994=100  
Weekly. Daily after Sept. 27.

at the two- to five-year maturities, a pattern that was reflected in a bulge in forward rates over the next few years; for example, the one-year forward rate at the three-year mark increased 60 basis points while the one-year forward rate ten years out rose only 35 basis points. This pattern suggests that some of the increase in market yields represents higher real interest rates, reflecting market participants' presumption that the unanticipated strength in spending implies that monetary policy will need to lean harder against building inflationary pressures than previously thought. Some of the run-up in nominal rates also likely owed to increased inflation expectations, though the evidence on this is mixed. Available measures of inflation expectations based on surveys of households and business forecasters have suggested no recent upward trend, and the price of gold has fallen slightly. However, broad commodity price indexes have continued to move up on balance over the last several weeks, and the foreign exchange value of the dollar came under renewed downward pressure during the intermeeting period despite considerable increases in nominal interest rates.

(3) After weakening over much of the period, the dollar's exchange value recovered somewhat in November to end the period down, on balance, 1 percent against the mark, 1/2 percent against the yen, and 1/2 percent on a weighted-average basis. Although the dollar's soft tone earlier appeared mostly to reflect the market's perception of heightened inflation risks in the United States, some of the dollar's weakness against the mark may have stemmed from a lessening of political uncertainty in Germany with the Kohl coalition's reelection. Short-term interest rates rose 15 basis points and long-term rates edged lower in Germany; in Japan, short-term rates were about

unchanged while long-term rates rose 20 basis points. When the dollar touched lows of DM1.4907 and ¥96.12 on November 2, the Desk began to intervene to buy dollars. On that day and the next, U.S. monetary authorities purchased \$1.3 billion against yen and an equal amount against marks. That intervention seemed to support the dollar, perhaps in part by reinforcing market expectations of an imminent tightening of monetary policy. (Federal funds futures rates jumped a few basis points during the intervention.) The dollar seemed to receive a further boost from the U.S. election results and the release of the PPI for October.

(4) M1 and M2 remained weak in October, mostly reflecting the increase in market interest rates resulting from the tightening of monetary policy this year. M2 contracted at a 1 percent annual rate last month after falling in the previous two months and was at the lower bound of its 1 to 5 percent annual range. Its M1 component dropped at a 3-1/2 percent rate. Demand deposits have been depressed by reduced compensating balance requirements, as earnings credit rates have risen in response to climbing market rates, and by declines in deposit balances associated with the plunge in mortgage refinancing activity. Interest rates on other checkable and savings deposits, including MMDAs, have responded sluggishly, and the resulting sharp increase in the opportunity cost of these assets has apparently prompted some depositors to shift funds into small time deposits and money fund shares, where yields have risen more briskly.<sup>2</sup> Noncom-

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2. Other checkable deposits have also been reduced by a sweep-account program introduced on a phased basis in recent months by \_\_\_\_\_; through October, \$2.2 billion

(Footnote continues on next page)

petitive tenders for Treasury securities have strengthened during the year, indicating the attractiveness of direct holdings of open market instruments relative to M2 assets. Nonetheless, even after taking into account opportunity costs, the extent of the recent weakness in M2 has been surprising, especially in view of a sharp drop-off of net inflows into bond and stock mutual funds in recent weeks and the persistent strength in spending indicators.<sup>3</sup>

(5) M3, by contrast, was a bit stronger than was expected at the time of the last FOMC meeting. This aggregate increased at a 3-1/2 percent annual rate in October, lifting it well within its 0 to 4 percent annual range. Banks continued to issue large CDs at a fast clip to finance strong growth of loans and to replace a runoff in nondeposit sources, which had been expanding rapidly earlier in the year; banks also reduced their holdings of securities to fund loan growth.

(6) Both nonfederal sector debt and total domestic nonfinancial sector debt appear to have continued to expand at only a moderate pace over the summer months and into October, despite continued easing of credit availability at banks. Through September, total debt increased at about a 5 percent rate from the fourth quarter of 1993, leaving it in the lower half of its 4 to 8 percent monitoring range.

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(Footnote continued from previous page)  
of balances are estimated to have been shifted out of OCDs by this program. Partly in association with the contraction in transaction deposits, total reserves dropped at a 6-1/4 percent annual rate in October. Growth of currency, however, rebounded from the more moderate rates of August and September, boosting the expansion of the monetary base to a 6-1/2 percent rate.

3. M2 plus bond and stock mutual funds is estimated to have been about flat in October, bringing its expansion from the fourth quarter of 1993 to 1-1/2 percent.

With long-term rates continuing to back up, bond issuance by corporations remained near the depressed third-quarter pace in October. However, business borrowing from banks was robust last month and commercial paper borrowing accelerated, partly to finance impending mergers. Issuance of bonds by state and local governments also was damped by higher interest rates, and outstanding tax-exempt debt is estimated to have declined as a result of heavy retirements. In the household sector, data from banks for October indicate that consumer borrowing was again quite rapid; however, the limited information available for home mortgage borrowing suggests a moderate pace of activity. On the supply side of the credit markets, the most recent survey of bank loan officers revealed a further easing of terms and standards on business loans and increased willingness to extend credit to consumers. In the open markets, quality spreads on lower-rated corporate bonds and commercial paper have remained quite narrow even as the general level of rates has backed up.



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

	Aug.	Sept.	Oct.	QIV to Oct. <sup>1</sup>
<u>Money and credit aggregates</u>				
M1	-2.1	.9	-3.4	2.7
M2	-2.0	-.5	-1.1	1.0
M3	-2.1	1.2	3.5	1.0
Domestic nonfinancial debt	5.9	5.4	--	5.1
Federal	6.1	6.0	--	5.7
Nonfederal	5.8	5.1	--	4.8
Bank credit	3.9	3.4	3.0	6.9
<u>Reserve measures</u>				
Nonborrowed reserves <sup>2</sup>	-6.3	-1.1	-4.2	-2.3
Total reserves	-6.0	-.7	-6.3	-1.8
Monetary base	6.3	5.4	6.4	8.4
Memo: (Millions of dollars)				
Adjustment plus seasonal borrowing	469	487	380	--
Excess reserves	1004	1060	795	--

1. QIV to September for debt.

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.

### Policy Alternatives

(7) Two monetary policy alternatives for Committee consideration are presented formally below. Alternative B would keep the intended federal funds rate unchanged at 4-3/4 percent, in association with retaining an allowance of \$225 million for adjustment plus seasonal borrowing at the discount window.<sup>4</sup> Alternative C embodies a 50 basis point increase in the federal funds rate to 5-1/4 percent, accomplished either by an equal rise in the discount rate to 4-1/2 percent with the borrowing allowance kept at \$225 million or by an increase in the borrowing allowance to \$275 million at the current discount rate of 4 percent. A still larger increase in the federal funds rate than envisioned under alternative C is also discussed.

(8) The staff economic forecast assumes that a relatively steep upward trajectory for the federal funds rate over coming months will be necessary to restrain inflation next year. The Committee is assumed to raise the federal funds rate 150 basis points by the spring of next year and to keep it at that 6-1/4 percent level through most of 1995. In conjunction with the earlier policy tightenings, this path is seen as engendering financial conditions sufficiently restrictive to hold the growth of aggregate demand below that of potential real GDP over next year and into 1996. The resulting return of the unemployment rate to a level above its estimated natural rate of 6 percent or so will tend to reverse an incipient acceleration of inflation and thereby keep any near-term inflationary uptick from becoming embedded in the expectations that enter into wage- and price-setting decisions. Market participants appear to have a trajectory for the

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4. Further downward technical adjustments to the allowance can be anticipated over the intermeeting period as demands for seasonal credit continue to approach their normal trough early next year.

federal funds rate roughly similar to the staff's assumption built into short-term spot rates and futures quotes through next spring. In contrast to the staff assumption, however, rates further out the term structure can be read as suggesting expectations of additional tightening.

(9) Choice of the unchanged policy of alternative B might be based on the judgments that most of the effects of previous increases in interest rates are still in the pipeline, that convincing signs of higher inflation have not yet appeared, and that under these circumstances the Committee can await evidence indicating whether the effects of previous monetary tightening will be sufficient to restrain spending adequately. The weakness in the monetary aggregates and moderate expansion of overall measures of credit may be seen as offering support for the view that financial conditions are not conducive to a sustained pickup in inflation. Indeed, even without another tightening move, M2 seems likely to come in just below the 1 percent lower bound of its annual growth range this year and M1 to come in at only 2 percent.

(10) Market expectations are for substantial increases in the funds rate over the balance of the year. Opinions reportedly have coalesced around either increases of 50 basis points at both the November and December FOMC meetings, or a 75 basis point increase at the November meeting, which would reduce the odds of a further policy tightening this year. Thus, the absence of a tightening move at this meeting would catch market participants off guard. Heightened concerns that the Federal Reserve would not move sufficiently to contain inflation would generate a further depreciation of the foreign exchange value of the dollar, and probably induce a significant

selloff in note and bond markets. Some decrease in short-term interest rates might accompany the decision not to adjust policy at this meeting, although a sense that tightening action could be postponed only for a short time would limit the decline.

(11) The 50 basis point rise in the funds rate under alternative C could be favored on the grounds that the incoming data on economic activity again have been stronger than expected. With the economy perhaps overshooting its potential rather than settling into a "soft landing," the risks of an associated future pickup in inflation pressures would seem to have increased. A 1/2 point move in the federal funds rate, perhaps accompanied by an equal increment to the discount rate, could be seen as keeping pace with the need for policy firming in a deliberate manner consistent with the size and frequency of recent policy actions. The resulting real federal funds rate would be a bit above its long-run average, but restraint of at least this magnitude might be appropriate in light of the current pressure on capacity and the stimulative effects of the drop in the dollar and the easing of terms and standards of bank lending.

(12) With market participants generally appearing to have built in a move of at least this size, interest rates could exhibit little initial reaction to the implementation of alternative C. The receipt of information on output and price developments over the intermeeting period along the lines of the relatively robust Greenbook forecast might reinforce the market's perception that additional System tightening is required, and interest rates could edge higher later in the period. The foreign exchange value of the dollar could remain around recent trading levels if nominal interest rates move

sufficiently higher to offset the effects of a heightened sense of potential inflationary pressures.

(13) The Committee might wish to consider an even more substantial tightening of reserve market conditions--for example, on the order of 75 basis points. This step could be judged as more suited to the strength of the emerging threat that the economy may be overshooting its potential, setting in motion a gradual self-reinforcing process of increasing inflation. Under these circumstances, a more decisive move toward restraint would be needed to avoid an upward ratcheting of inflation. Market sentiment has deteriorated during the hiatus in policy tightening, judging by the rise in bond yields and weakness in the exchange value of the dollar. By more clearly notching up monetary policy to a firmer posture, a larger step might better assure market participants that the Federal Reserve was acting forcefully enough to head off future inflation and might forestall the perceived need on the part of the market participants for another tightening move this year. If so, the action could spur a near-term rally in bond markets and strengthen the dollar. Some increases in very short-term market interest rates would likely result, of course, from the somewhat larger-than-expected rise in the funds rate, and banks could immediately raise their prime rate by a comparable amount.

(14) With regard to credit flows over coming months, the staff sees continued moderate expansion and perhaps some slowing in the pace at which bank lending terms are being eased. The debt of domestic nonfinancial sectors is expected to grow during the fourth quarter at near the same 5 percent pace averaged over the first three quarters of the year. In the first quarter of next year, overall debt is projected to edge up to a 5-1/4 percent rate of growth, owing to a

step-up in federal borrowing. Nonfederal debt growth is likely to about maintain its pace of earlier this year, remaining somewhat below the projected growth of nominal GDP. Nonfederal debt growth will probably continue to be led by the household sector, although expansion of home mortgage and consumer debt is likely to edge lower over the next two quarters. In the corporate sector, by contrast, some pickup in credit market borrowing may be in the offing, reflecting a further widening in the financing gap as spending for fixed capital and inventories increases relative to internal sources of funds. The financing mix should remain heavily weighted toward bank loans and short-term paper, with bond issuance staying depressed. Anecdotal reports of recent resistance by banks to pressures for further reductions in lending spreads, along with concerns about credit quality expressed by regulators, suggest that credit terms and standards may not be easing quite so rapidly over coming months.

(15) Forecasted growth rates of the monetary aggregates from October to March and from the fourth quarter of this year through March under both policy alternatives are shown below.<sup>5</sup> (More detailed data appear on the table and charts on the following pages.) Under alternative B, offering rates through the first quarter would continue to adjust upward in the face of steady money market rates. As a result, retail deposit inflows are projected to strengthen gradually, yielding growth rates for M2 of 1 percent over the October to March interval and 1-1/2 percent from the fourth quarter of 1994 to March. The resumption of quarterly average growth, at a 1 percent rate in the first quarter, combined with a projected slowing of

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5. Because no further policy moves are presumed to occur under alternatives B and C after the November FOMC meeting, these growth rates are stronger than those consistent with the Greenbook forecast.

nominal GDP, would be associated with a reduced growth rate of 4-3/4 percent of M2 velocity, down from a projected increase of 7-1/4 percent in the fourth quarter. M1 is projected to decline at a 1 percent rate from October to March under alternative B, as currency flows abroad remain robust but demand and other checkable deposits continue to decline.<sup>6</sup> The staff does not expect banks to continue to run off securities at the recent pace, so that the growth of bank credit should pick up. Rapid issuance of large time deposits will continue to fill some of the gap left by still-sluggish retail deposits, and thus M3 is projected to outpace M2 from October to March, likely expanding at a 2-1/2 percent rate under alternative B.

	<u>Alt. B</u>	<u>Alt. C</u>
Growth from October to March		
M2	1	0
M3	2-1/2	2
M1	-1	-2
Implied growth from 1994:Q4 to March		
M2	1-1/2	1/2
M3	2-1/2	2-1/4
M1	0	-1-1/4

(16) Under the 50 basis point increase in the funds rate of alternative C, both M2 and M3 would record slower growth over the next five months than under alternative B. Given the sluggish upward adjustment of offering rates on M2 balances, households would divert still more savings into direct holdings of market instruments. M2

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6. Currency and the monetary base are projected to grow from October to March at 8-1/2 percent and 6-3/4 percent rates, respectively, while total reserves are expected to decline at a 4-1/2 percent rate over this period.

Alternative Levels and Growth Rates for Key Monetary Aggregates

	M2		M3		M1		
	Alt. B	Alt. C	Alt. B	Alt. C	Alt. B	Alt. C	
<b>Levels in Billions</b>							
Oct-94	3592.5	3592.5	4259.5	4259.5	1148.7	1148.7	
Nov-94	3587.1	3586.2	4266.1	4265.6	1143.3	1143.1	
Dec-94	3586.4	3583.0	4272.9	4270.9	1140.4	1139.4	
Jan-95	3589.3	3583.1	4282.4	4278.6	1139.4	1137.3	
Feb-95	3595.6	3586.9	4292.5	4287.3	1140.2	1136.7	
Mar-95	3605.4	3594.6	4303.5	4297.0	1143.6	1138.7	
<b>Monthly Growth Rates</b>							
Oct-94	-1.1	-1.1	3.5	3.5	-3.4	-3.4	
Nov-94	-1.8	-2.1	1.9	1.7	-5.6	-5.9	
Dec-94	-0.2	-1.1	1.9	1.5	-3.1	-3.9	
Jan-95	1.0	0.0	2.6	2.2	-1.1	-2.2	
Feb-95	2.1	1.3	2.9	2.4	0.8	-0.6	
Mar-95	3.3	2.6	3.1	2.7	3.6	2.0	
<b>Quarterly Averages</b>							
94 Q3	0.7	0.7	1.7	1.7	3.0	3.0	
94 Q4	-1.1	-1.3	1.8	1.7	-2.8	-2.9	
95 Q1	0.9	0.1	2.5	2.1	-1.0	-2.1	
<b>Growth Rate</b>							
From	To						
Dec-93	Oct-94	0.8	0.8	0.8	0.8	2.2	2.2
Oct-94	Dec-94	-1.0	-1.6	1.9	1.6	-4.3	-4.9
Dec-94	Mar-95	2.1	1.3	2.9	2.4	1.1	-0.2
Oct-94	Mar-95	0.9	0.1	2.5	2.1	-1.1	-2.1
92 Q4	Dec-93	1.6	1.6	0.9	0.9	10.3	10.3
93 Q4	Oct-94	1.0	1.0	1.0	1.0	2.7	2.7
93 Q4	Nov-94	0.8	0.8	1.1	1.1	2.0	1.9
93 Q4	Dec-94	0.8	0.8	1.1	1.1	2.0	1.9
94 Q4	Mar-95	1.4	0.6	2.6	2.2	-0.1	-1.3
91 Q4	92 Q4	1.9	1.9	0.5	0.5	14.3	14.3
92 Q4	93 Q4	1.4	1.4	0.7	0.7	10.5	10.5
93 Q4	94 Q2	0.9	0.9	0.2	0.2	2.0	2.0
93 Q4	94 Q3	1.1	1.1	0.7	0.7	2.7	2.7
93 Q4	94 Q4	0.8	0.8	1.1	1.1	2.0	2.0
<b>1994 Target Ranges:</b>		1 to 5		0 to 4			



Chart 2  
**ACTUAL AND TARGETED M2**

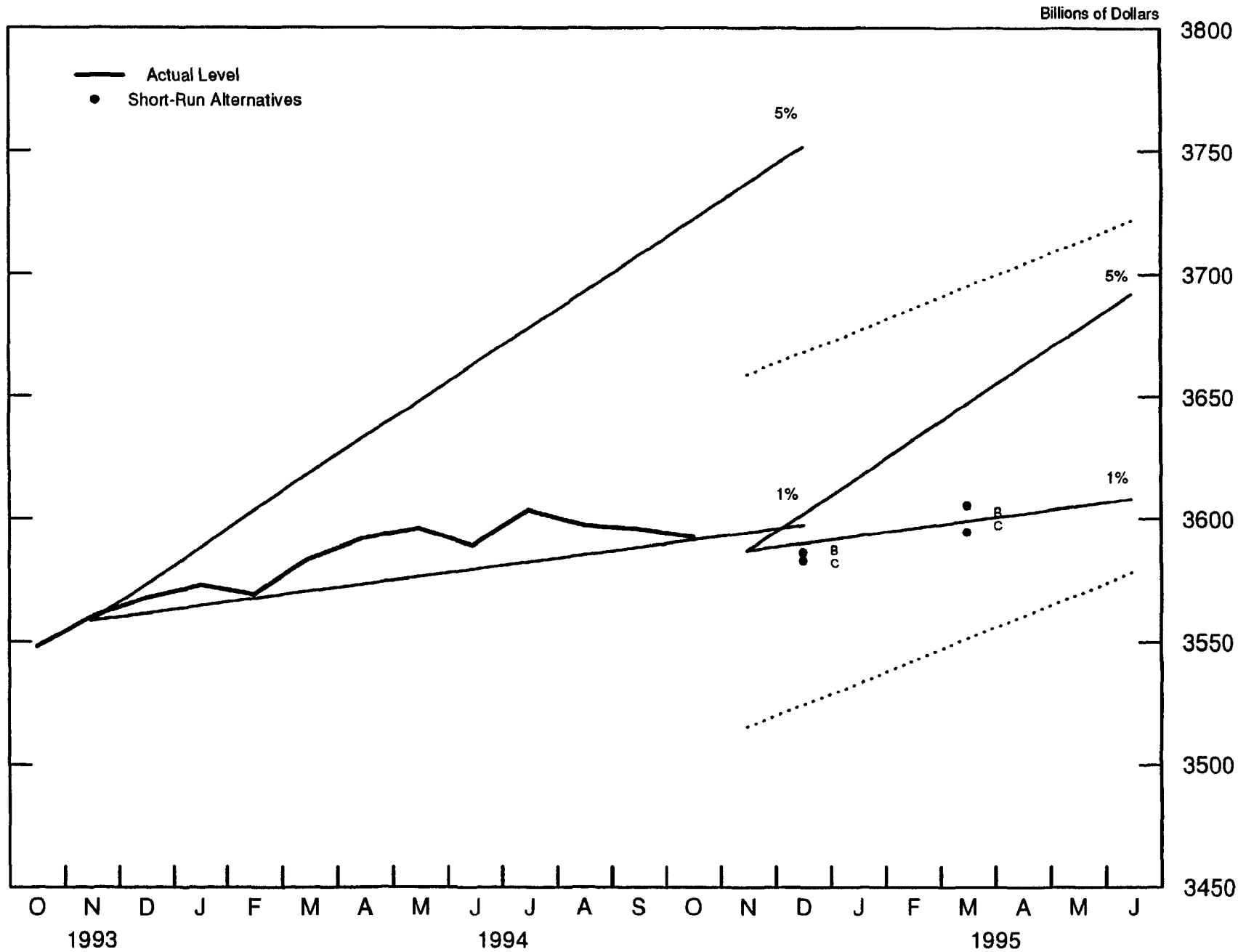


Chart 3  
**ACTUAL AND TARGETED M3**

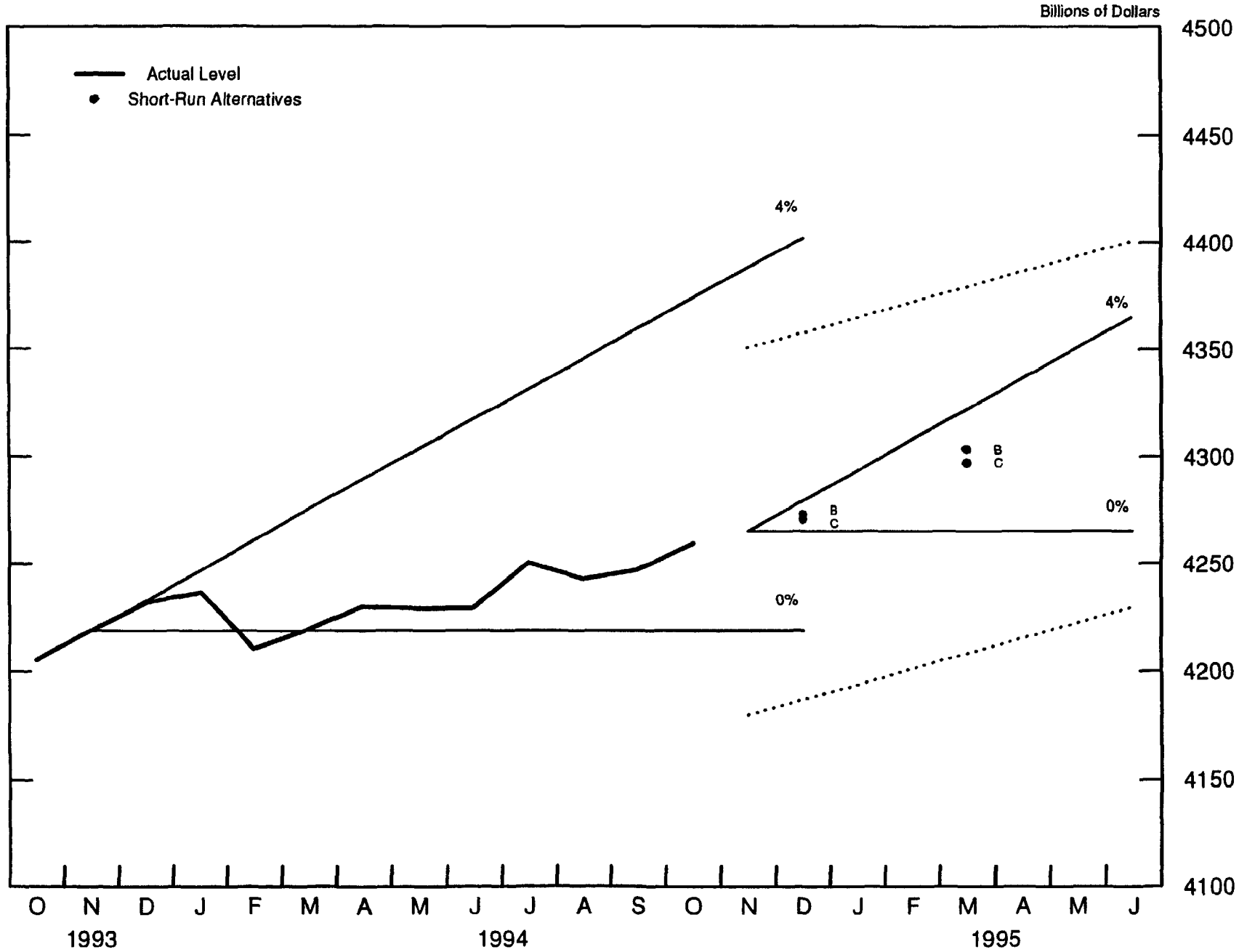


Chart 4

# M1

Billions of Dollars

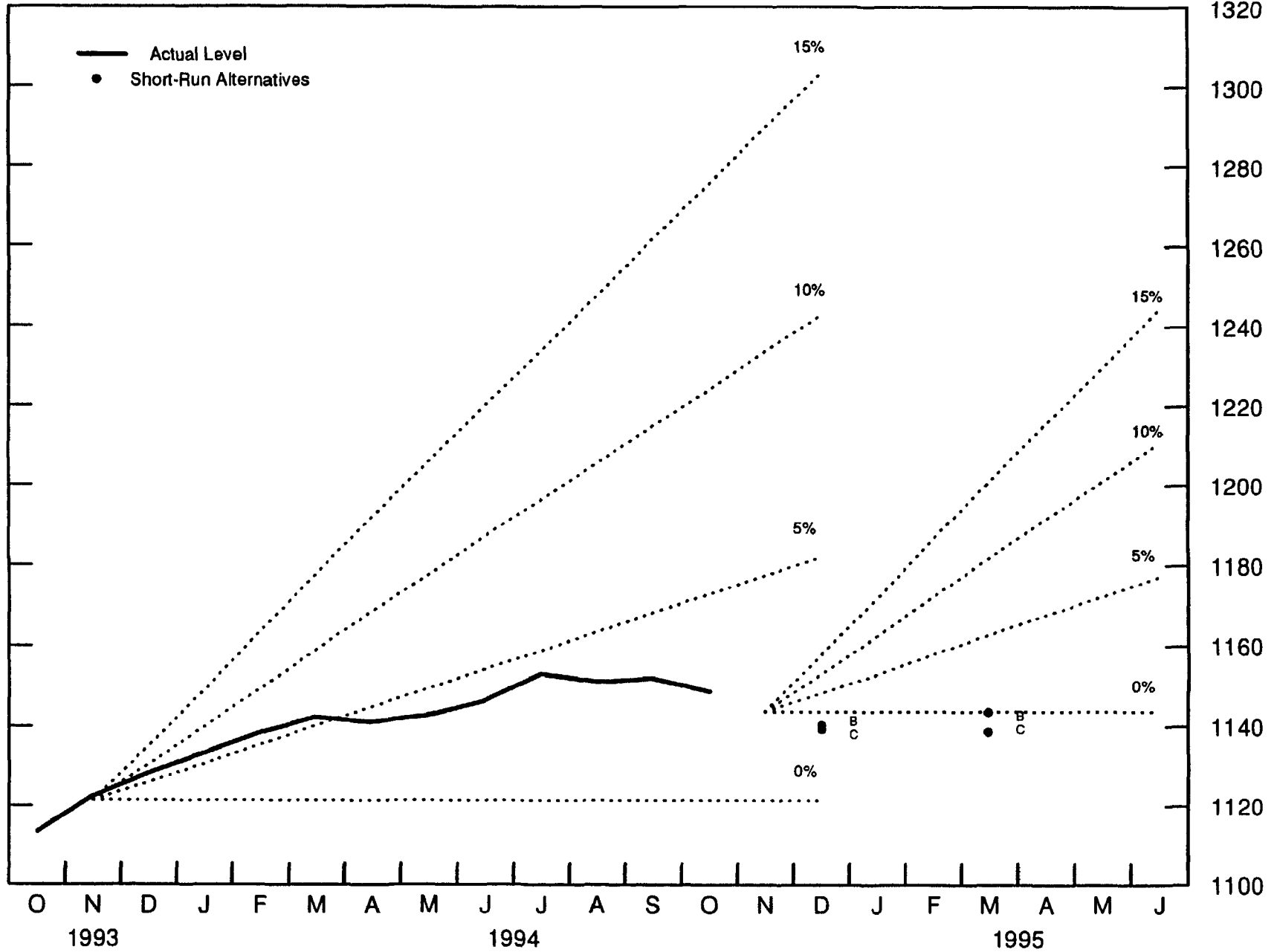
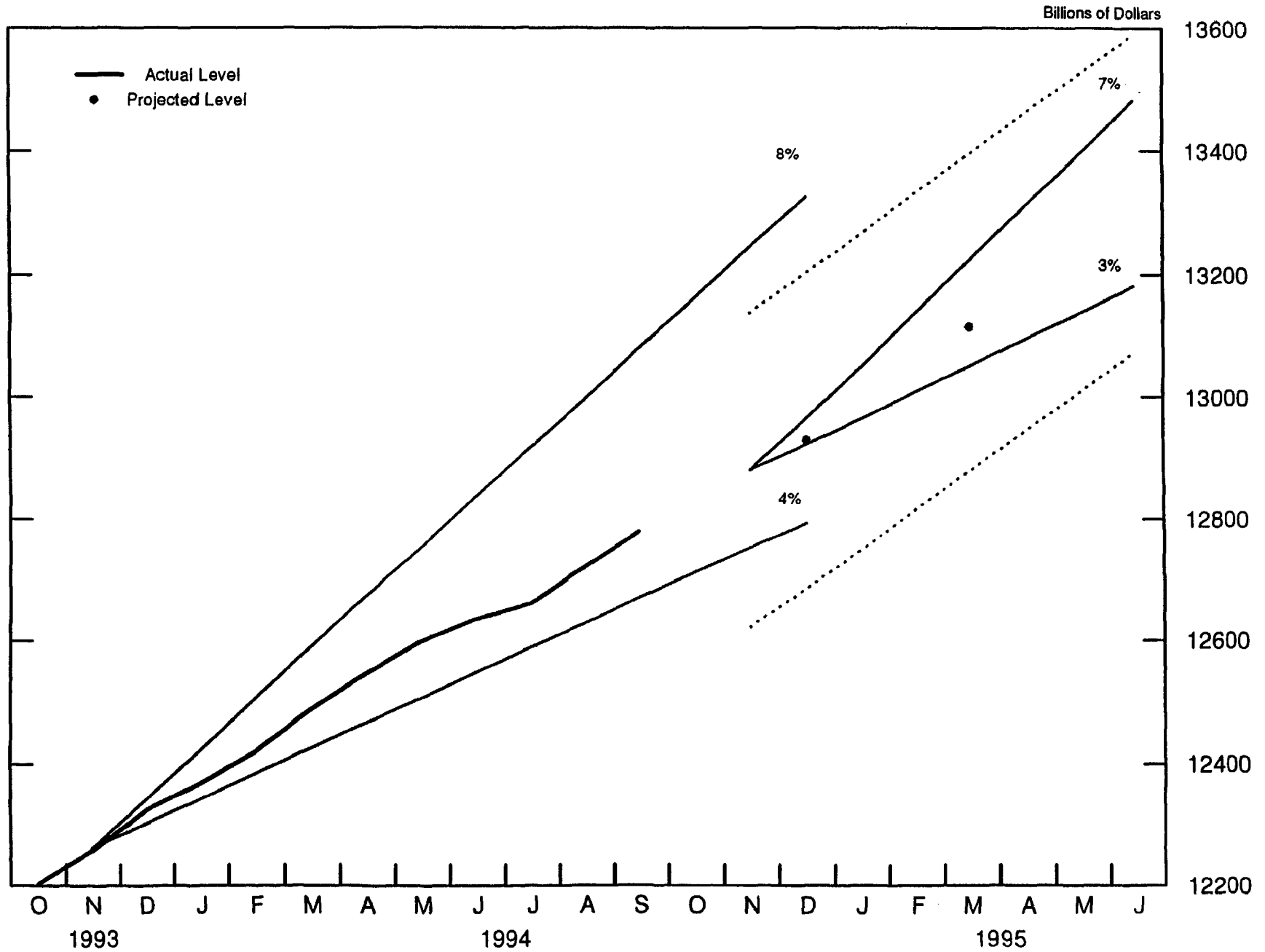


Chart 5  
DEBT



is projected to be flat on balance over October to March, implying an increase from the fourth quarter of this year to March at only a 1/2 percent rate--below the Committee's provisional range for 1995 of 1 to 5 percent. With bank credit expansion also slightly more restrained as higher interest rates damp spending and borrowing, M3's growth from October to March would be reduced to a 2-1/4 percent rate.

Directive Language

(18) Presented below is draft wording for the operational paragraph that includes the usual options for Committee consideration and a reference to a possible increase in the discount rate.

OPERATIONAL PARAGRAPH

In the implementation of policy for the immediate future, the Committee seeks to DECREASE SOMEWHAT/main-  
tain/INCREASE 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 con-  
sideration to economic, financial, and monetary develop-  
ments, somewhat (SLIGHTLY) greater reserve restraint  
would (MIGHT) or (SOMEWHAT) slightly lesser reserve  
restraint (WOULD) might be acceptable in the intermeet-  
ing period. The contemplated reserve conditions are  
expected to be consistent with modest growth in M2 and  
M3 over the balance of the year COMING MONTHS.

**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			3-year	10-year	30-year			secondary market	primary market	
		1	2	3	4	5	6	7	8	9	10	11	12	13	fixed-rate	fixed-rate
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	5.07	5.19	5.62	5.98	5.69	5.18	4.41	7.75	7.36	8.00	8.13	9.05	7.23	9.43	9.19	6.01
-- 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
Monthly																
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
May 94	4.01	4.14	4.60	5.03	4.51	4.28	3.29	6.99	6.34	7.18	7.41	8.37	6.46	8.78	8.60	5.46
Jun 94	4.25	4.14	4.55	4.98	4.52	4.36	3.61	7.25	6.27	7.10	7.40	8.30	6.38	8.62	8.40	5.45
Jul 94	4.26	4.33	4.75	5.17	4.73	4.49	3.75	7.25	6.48	7.30	7.58	8.45	6.48	8.82	8.61	5.52
Aug 94	4.47	4.48	4.88	5.25	4.81	4.65	3.95	7.51	6.50	7.24	7.49	8.36	6.44	8.82	8.51	5.53
Sep 94	4.73	4.62	5.04	5.43	5.03	4.90	4.15	7.75	6.69	7.46	7.71	8.62	6.55	8.93	8.64	5.54
Oct 94	4.76	4.95	5.39	5.75	5.51	5.02	4.30	7.75	7.04	7.74	7.94	8.80	6.83	9.25	8.93	5.78
Weekly																
Jul 27 94	4.28	4.39	4.79	5.23	4.69	4.46	3.80	7.25	6.49	7.29	7.56	8.27	6.47	8.71	8.57	5.54
Aug 3 94	4.28	4.33	4.74	5.12	4.68	4.45	3.83	7.25	6.36	7.15	7.43	8.37	6.37	8.82	8.38	5.50
Aug 10 94	4.26	4.42	4.87	5.24	4.75	4.50	3.85	7.25	6.52	7.26	7.52	8.35	6.49	8.84	8.57	5.56
Aug 17 94	4.35	4.47	4.93	5.29	4.82	4.66	3.88	7.39	6.55	7.25	7.47	8.39	6.45	8.87	8.54	5.52
Aug 24 94	4.66	4.56	4.93	5.32	4.88	4.80	4.03	7.75	6.54	7.27	7.51	8.36	6.46	8.74	8.56	5.54
Aug 31 94	4.72	4.57	4.88	5.27	4.87	4.79	4.08	7.75	6.48	7.23	7.49	8.38	6.43	8.69	8.48	5.49
Sep 7 94	4.74	4.55	4.84	5.26	4.87	4.81	4.12	7.75	6.48	7.24	7.52	8.59	6.46	8.90	8.51	5.47
Sep 14 94	4.70	4.58	4.95	5.34	4.94	4.85	4.14	7.75	6.62	7.41	7.68	8.69	6.51	8.93	8.66	5.49
Sep 21 94	4.73	4.64	5.06	5.47	5.00	4.89	4.17	7.75	6.71	7.49	7.75	8.70	6.66	9.02	8.73	5.56
Sep 28 94	4.66	4.72	5.20	5.56	5.17	5.00	4.20	7.75	6.82	7.58	7.81	8.71	6.70	9.10	8.82	5.67
Oct 5 94	5.07	4.78	5.30	5.67	5.39	5.03	4.26	7.75	6.98	7.68	7.88	8.80	6.82	9.30	8.89	5.72
Oct 12 94	4.62	4.93	5.35	5.68	5.55	5.13	4.29	7.75	6.99	7.71	7.90	8.73	6.73	9.12	8.93	5.77
Oct 19 94	4.72	4.89	5.31	5.69	5.45	4.99	4.31	7.75	6.94	7.64	7.85	8.87	6.81	9.29	8.85	5.77
Oct 26 94	4.72	5.02	5.47	5.85	5.52	4.97	4.35	7.75	7.15	7.85	8.03	8.85	6.95	9.30	9.03	5.88
Nov 2 94	4.77	5.04	5.48	5.85	5.56	5.01	4.40	7.75	7.16	7.88	8.03	9.05	7.16	9.43	9.05	5.91
Nov 9 94	4.74	5.19	5.62	5.98	5.69	5.18	4.41	7.75	7.36	8.00	8.13	9.00	7.23	9.38	9.19	6.01
Daily																
Nov 4 94	4.66	5.18	5.63	6.00	5.65	5.11	--	7.75	7.37	8.04	8.16	--	--	--	--	--
Nov 9 94	5.28	5.20	5.62	5.97	5.72	5.24	--	7.75	7.35	7.94	8.09	--	--	--	--	--
Nov 10 94	4.85p	5.32	5.64	6.01	5.71	5.27	--	7.75	7.40	7.98	8.15	--	--	--	--	--

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

NOVEMBER 14, 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>										
<b>Annually (Q4 to Q4)</b>										
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	2.7	4.7
1993	10.5	1.4	-2.3	-3.3	0.7	1.1	4.9	8.4	4.1	5.2
<b>Quarterly Average</b>										
1993-4th QTR.	9.4	2.3	-0.8	4.0	2.6	2.0	3.2	6.1	4.5	4.9
1994-1st QTR.	6.0	1.9	-0.0	-7.9	0.3	2.5	8.6	7.3	4.6	5.3
1994-2nd QTR.	1.9	1.9	2.0	-6.2	0.7	1.2	7.2	5.5	5.4	5.4
1994-3rd QTR.	3.0	0.7	-0.4	7.0	1.7	1.3	6.8	3.9	4.1	4.1
<b>Monthly</b>										
1993-OCT.	9.0	1.3	-2.3	7.3	2.2	2.5	0.9	0.7	4.6	3.5
NOV.	9.7	4.2	1.6	2.4	3.9	3.2	6.3	9.2	3.9	5.3
DEC.	6.4	2.6	0.8	10.0	3.7	4.8	5.7	11.9	4.7	6.6
1994-JAN.	5.4	1.7	0.0	-1.3	1.3	4.7	13.9	3.8	4.5	4.3
FEB.	5.3	-1.3	-4.3	-40.3	-7.4	-2.6	4.1	6.0	4.4	4.9
MAR.	4.0	4.7	5.1	-9.4	2.5	0.2	9.7	8.9	5.8	6.6
APR.	-1.3	2.9	4.9	3.2	3.0	4.7	10.6	3.9	6.1	5.5
MAY	1.8	1.4	1.2	-9.4	-0.3	0.2	2.1	4.2	5.4	5.1
JUNE	3.7	-2.3	-5.1	13.3	0.0	-1.9	4.6	4.9	2.9	3.5
JULY	7.1	4.7	3.6	13.5	6.1	7.2	13.0	1.1	3.0	2.4
AUG.	-2.1	-2.0	-2.0	-2.8	-2.1	-2.0	3.9	6.1	5.8	5.9
SEP.	0.9	-0.5	-1.2	10.8	1.2	-2.2	3.4	6.1	5.1	5.3
OCT. p	-3.4	-1.1	0.0	28.9	3.5		3.0			
<b>Levels (\$Billions):</b>										
<b>Monthly</b>										
1994-JUNE	1146.3	3589.3	2443.0	639.8	4229.1	5157.3	3223.9	3416.3	9218.7	12635.0
JULY	1153.1	3603.5	2450.4	647.0	4250.5	5188.2	3258.8	3419.3	9241.4	12660.7
AUG.	1151.1	3597.4	2446.4	645.5	4242.9	5179.4	3269.3	3436.6	9286.0	12722.6
SEP.	1152.0	3595.9	2443.9	651.3	4247.2	5170.1	3278.5	3454.0	9325.4	12779.3
OCT. p	1148.7	3592.5	2443.9	667.0	4259.5		3286.7			
<b>Weekly</b>										
1994-OCT. 3	1150.7	3594.5	2443.8	654.0	4248.6					
10	1148.4	3592.2	2443.8	663.3	4255.4					
17	1148.5	3595.9	2447.4	663.5	4259.4					
24 p	1149.8	3594.3	2444.5	669.3	4263.6					
31 p	1144.5	3584.4	2439.9	677.4	4261.8					

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

NOVEMBER 14, 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							
	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	382.1	411.9	90.8	1212.1	790.5	346.7	195.4	340.0	96.1	47.0	170.9	325.9	385.2	15.4
<b>Monthly</b>															
1993-OCT.	317.6	378.4	409.5	89.6	1208.8	795.0	344.4	194.3	341.6	96.0	45.0	170.1	323.7	384.7	16.4
NOV.	319.5	383.2	411.8	90.6	1211.9	790.7	347.0	194.8	339.4	95.6	48.9	170.8	324.6	384.1	15.3
DEC.	321.4	384.8	414.3	92.3	1215.5	785.7	348.8	197.0	339.0	96.8	47.0	171.7	329.3	386.8	14.6
<b>1994-</b>															
JAN.	325.2	388.3	412.0	95.1	1220.3	779.5	347.8	192.7	341.8	92.9	46.0	172.7	339.0	391.6	14.9
FEB.	329.2	390.3	411.2	93.5	1220.9	774.5	343.7	176.9	336.5	91.5	48.1	173.4	341.5	403.0	15.3
MAR.	332.4	390.0	411.9	98.5	1221.9	771.2	348.4	177.4	332.2	94.1	47.1	174.1	345.6	389.6	15.7
APR.	334.8	388.9	409.3	97.0	1220.7	768.6	361.5	177.0	332.1	97.9	47.4	174.8	361.0	384.9	14.1
MAY	337.6	385.8	411.2	100.1	1215.9	769.1	365.1	169.3	335.0	96.9	48.5	175.7	358.3	391.0	11.4
JUNE	340.3	386.5	411.4	104.4	1207.2	770.4	359.3	169.5	335.3	100.8	50.8	176.6	348.5	392.6	10.5
JULY	343.2	389.1	412.5	109.2	1202.5	772.6	363.5	170.9	337.7	102.4	51.6	177.5	356.7	392.7	10.7
AUG.	345.4	387.5	409.8	110.5	1194.8	777.7	362.9	169.3	340.7	100.4	51.2	178.4	359.9	387.0	11.2
SEP.	347.3	388.0	408.2	111.9	1186.6	783.1	362.3	167.9	346.9	101.6	50.9	179.0	341.0	391.0	11.9
OCT. p	349.9	385.9	404.4	115.5	1173.3	793.3	365.0	175.3	355.2	101.6	51.4				

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

November 11, 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
--Q2	6,639	---	6,639	364	2,817	1,117	896	440	4,754	307	11,086	4,179
--Q3	1,610	---	1,610	151	2,530	938	840	11	4,448	405	5,654	-8,530
1993 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	-5,332
May	1,395	---	1,395	155	---	---	---	---	155	70	1,480	5,441
June	4,143	---	4,143	---	---	---	---	---	---	58	4,085	4,070
July	---	---	---	---	---	---	---	---	---	322	-322	-5,023
August	1,610	---	1,610	---	---	---	---	---	---	63	1,547	2,793
September	---	---	---	151	2,530	938	840	11	4,448	20	4,428	-6,301
October	518	---	518	450	---	---	---	---	450	1,041	-72	819
Weekly												
August 3	---	---	---	---	---	---	---	---	---	---	---	2,321
10	184	---	184	---	---	---	---	---	---	---	184	144
17	517	---	517	---	---	---	---	---	---	5	512	-5,421
24	409	---	409	---	---	---	---	---	---	---	409	4,056
31	501	---	501	---	---	---	---	---	---	58	443	3,757
September 7	---	---	---	151	2,530	938	840	---	4,459	---	4,459	-4,008
14	---	---	---	---	---	---	---	---	---	20	-20	-1,916
21	---	---	---	---	---	---	---	---	---	---	---	-1,400
28	---	---	---	---	---	---	---	11	-11	---	-11	-4,650
October 5	---	---	---	---	---	---	---	---	---	---	---	4,914
12	---	---	---	---	---	---	---	---	---	44	-44	-835
19	---	---	---	---	---	---	---	---	---	979	-979	4,712
26	---	---	---	---	---	---	---	---	---	18	-18	221
November 2	572	---	572	450	---	---	---	---	450	---	1,022	-602
9	212	---	212	---	---	---	---	---	---	---	212	-629
Memo: LEVEL (bil. \$) <sup>6</sup>												
November 9			179.1	208.2	88.5	25.7	34.3		356.7		365.6	-5.1

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	1.6	0.5	0.0	3.7