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# MONETARY POLICY ALTERNATIVES

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PREPARED FOR THE FEDERAL OPEN MARKET COMMITTEE  
BY THE STAFF OF THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

December 17, 1999

## MONETARY POLICY ALTERNATIVES

### Recent Developments

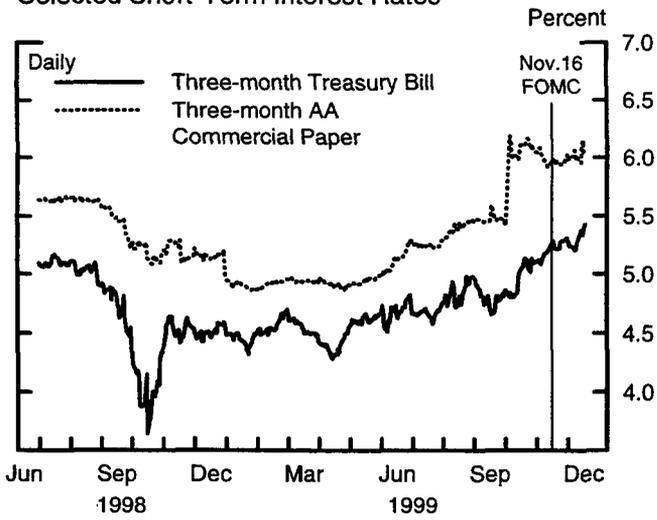
(1) The announcement that the FOMC increased its target federal funds rate to 5-1/2 percent was partly anticipated and as a consequence prompted only a modest initial backup in interest rates.<sup>1</sup> However, the concern expressed in the announcement about the inflationary implications of unsustainably rapid economic growth may have heightened reactions to subsequent economic news pointing to persistent strength in aggregate demand. While favorable information on costs and prices helped to damp the overall rise in yields, economic releases were apparently read on balance as boosting the odds of additional tightening actions in the coming year. Futures market quotes now suggest that market participants attach a high probability to a quarter-point tightening at next February's meeting and additional subsequent firmings of about another half point by next fall. On net, Treasury coupon yields rose about 35 basis points over the intermeeting period. Yields on investment-grade corporate bonds moved up a bit less, and those on junk bonds were about unchanged, and risk spreads on junk bonds remain 1 percentage point wider than they were in the first half of 1998. Most broad stock market indexes finished the period up about 2 to 4-1/2 percent, with much of the gains accounted for by technology companies.

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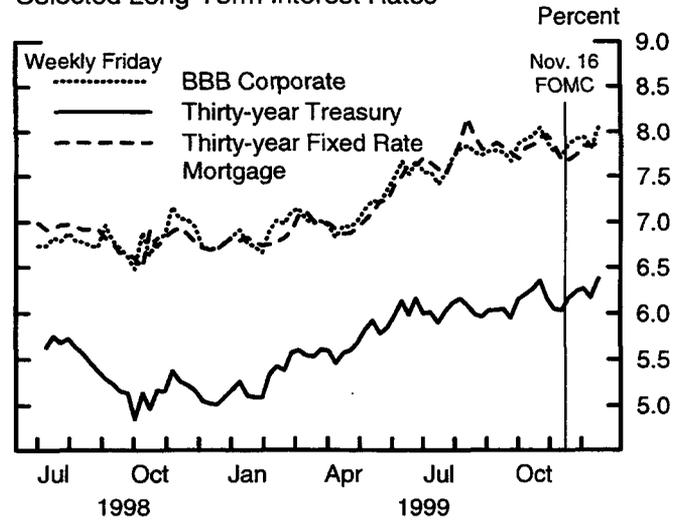
<sup>1</sup> The federal funds rate averaged close to 5-1/2 percent over the intermeeting period. Largely reflecting the steep rise in vault cash at depositories preparing to meet year-end cash demands, required operating balances (required reserve balances plus required clearing balances) dropped to very low levels. However, neither the demand for excess reserves nor the daily volatility of the federal funds rate seems to have been much affected.

Chart 1

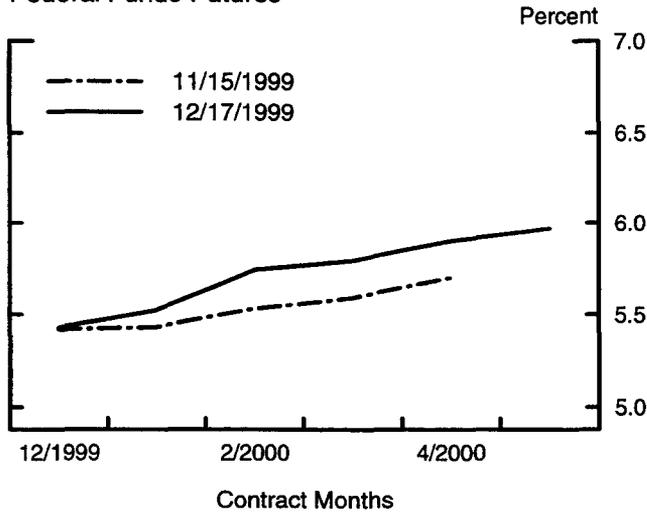
Selected Short-Term Interest Rates



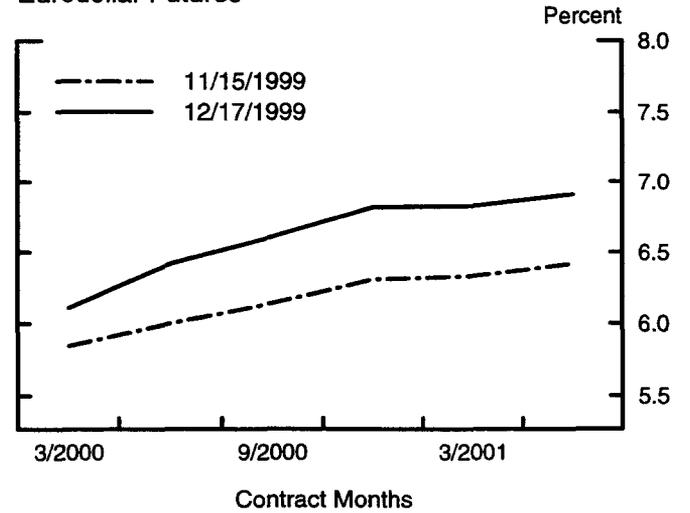
Selected Long-Term Interest Rates



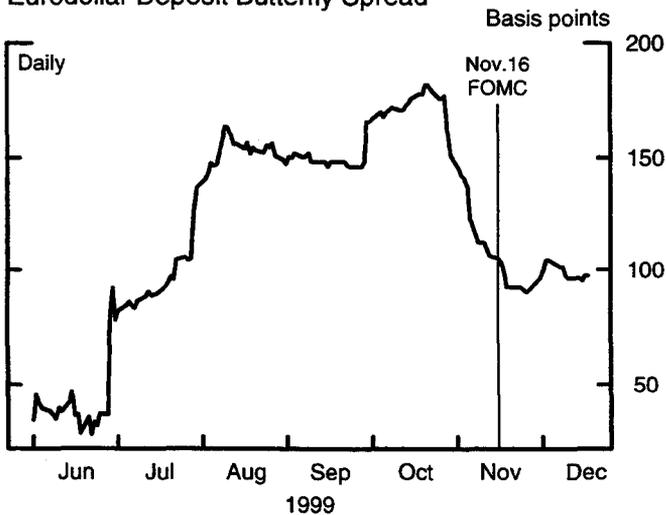
Federal Funds Futures



Eurodollar Futures



Eurodollar Deposit Butterfly Spread



Ten-year Swap Spread

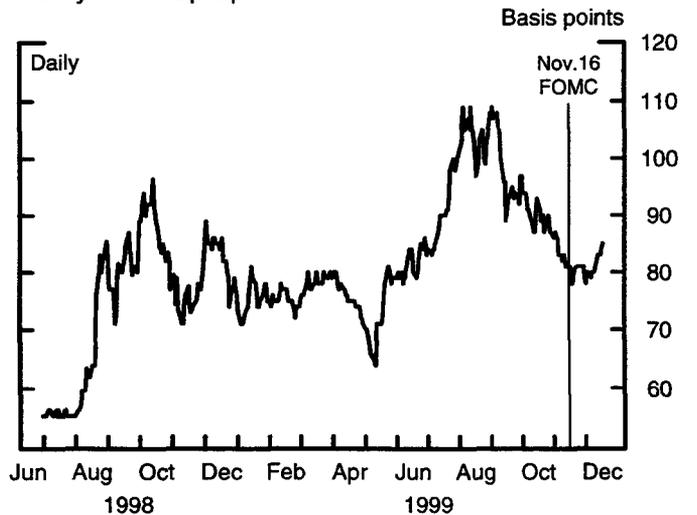
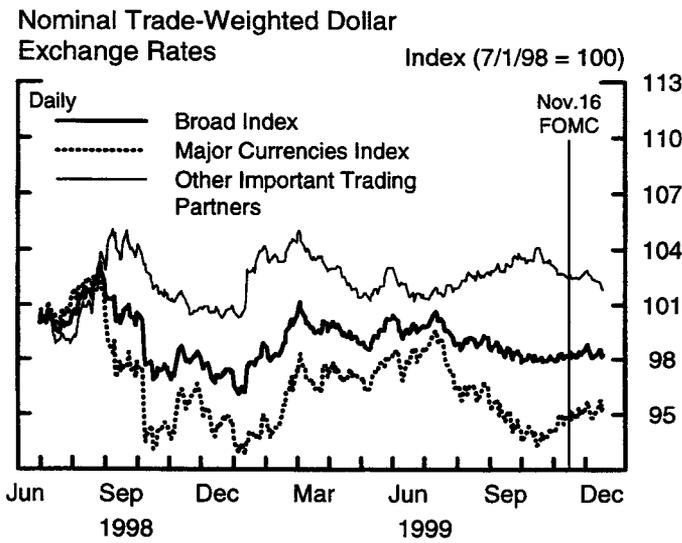
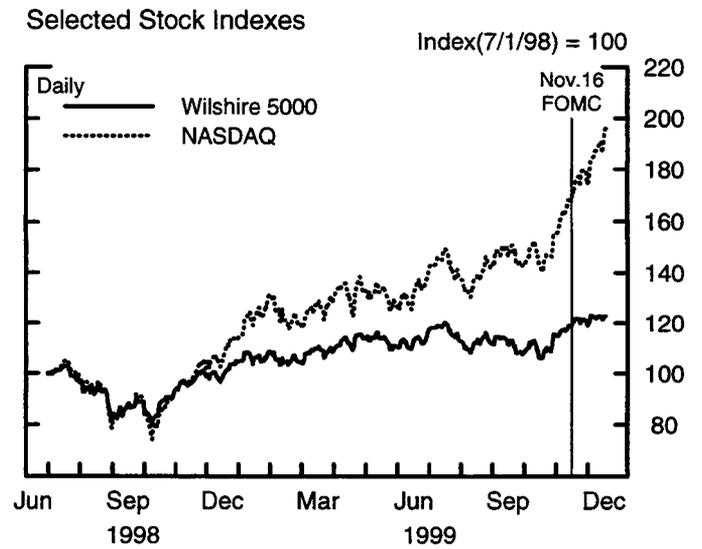
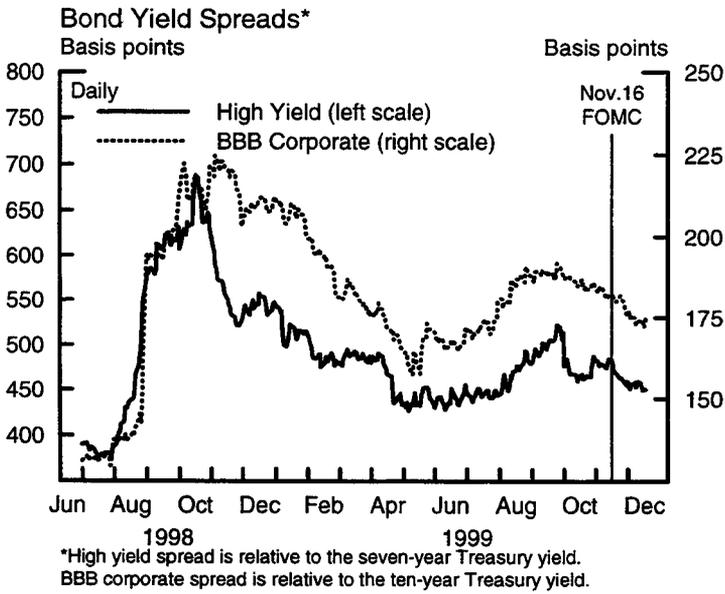


Chart 2



(2) Participants seemed to become somewhat less worried over the intermeeting period that the century date change will lead to much greater and longer lasting illiquidity in financial markets than associated with a typical year-end. Contrary to earlier expectations, markets generally remained quite receptive to new financing through the first week or so of December: Issuance of commercial paper and corporate bonds was brisk, and initial public offerings of equity surged. It has only been in the last few days that volume in corporate bond markets has shown signs of tailing off seasonally; in the commercial paper market, however, liquidity has eroded noticeably and spreads are widening. In the Treasury market, bid-asked spreads were little changed over the intermeeting period, and the decline in trading volumes was normal for this time of year. Premiums embedded in funding contracts with maturities crossing over the year-end generally were little changed over the intermeeting period and are well below the peaks recorded in October of this year, though they remain elevated relative to past year-ends. Such elevated premiums mostly seem to reflect borrowers' intense desire to lock in funding over the turn combined with lenders' reluctance to expand their balance sheets; the December federal funds futures contract suggests, if anything, that investors may be expecting funds to trade somewhat below target at year-end. The cumulative increase in the volume of options on repurchase agreements auctioned by the Desk seemed ultimately to sate dealer and customer demands. Propositions at the three auctions since the November FOMC meeting dropped off considerably, on balance, and despite the lower quantities of options awarded at these auctions, the premiums generally

edged lower.<sup>2</sup> In other actions aimed at mitigating year-end pressures, the Desk this week arranged two forward RP transactions totaling \$6 billion that settle on December 30 and December 31 and mature on January 3 and January 4; it has also arranged a considerable volume of longer-term RPs stretching into the new year. To date, Desk operations have put in place \$60.4 billion of System RPs over the year-end.

(3) The rise in long-term interest rates in the United States over the intermeeting period about matched that in most industrial countries with the exception of Japan, but the foreign exchange value of the dollar still appreciated about 3/4 percent against a basket of major currencies. The strength in the dollar, though, was not uniform: The dollar appreciated 2-1/4 percent against the euro and depreciated 1-1/2 percent against the yen. The weakness of the euro, which moved close to parity with the dollar, is somewhat puzzling in that incoming data generally supported the notion that economic expansion in Europe was well in train. Market participants did evince concerns about the attractiveness of the business environment in Europe after the German and French governments intervened to block a few corporate restructurings; nonetheless, European equity prices rose strongly over the

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<sup>2</sup> Options outstanding now total \$114 billion in the week of December 23, \$223 billion in the week of December 30, and \$144 billion in the week of January 6. Not surprisingly, with federal funds trading close to the target over the intermeeting period, borrowing from the Special Liquidity Facility was generally light, apart from one sizable overnight borrowing amid tight settlement day conditions in the reserve market on December 15. Depositories continued to pledge additional quantities of collateral at the discount window to be prepared for potential borrowing over the turn. On December 6, the President signed into law an amendment to the Federal Reserve Act that allows all discount window loans to serve as collateral backing for Federal Reserve notes. The change removes an impediment the Federal Reserve might otherwise have faced in implementing appropriate open market operations in the event of a surge in discount window borrowing over the year-end.

intermeeting period. In emerging market economies, yield spreads narrowed, on balance, to the lowest levels seen since the market turmoil of the autumn of 1998, and equity prices for the most part registered sizable gains.

ii. U.S. monetary

authorities did not intervene during the period.

(4) The growth of M2 in November, at 5-1/2 percent, remained moderate, with higher opportunity costs evidently tending to offset some of the impetus to money demand from stronger spending in the second half of the year. Among the components of M2, currency growth, which has been brisk for some time, strengthened further last month. Some portion of the recent runup in currency could mark a pickup in Y2K-related demands, but strong holiday spending also may have played a role. In contrast to M2, M3 growth surged last month with the institution-only money fund and large time deposit components of M3 running especially strongly. The pickup in the expansion of institution-only money funds is consistent with reports that firms may be consolidating liquid assets in professionally managed funds in advance of the year-end. Rapid growth in large time deposits at domestic banks seems to have been driven by the need to fund sizable increases in bank credit and vault cash. Moreover, the Treasury ran down its deposits in November, probably leading some domestic banks to ratchet up their issuance of large time deposits. U.S. branches and agencies of foreign banks apparently relied increasingly on large time deposits to fund their head offices and build up liquid assets in advance of the century date change and to finance loan growth. Recent informal contacts with several foreign branches suggested that their

head offices have found U.S. markets to be a relatively attractive source of funds and have chosen to issue large time deposits in the United States as one of their preferred vehicles for securing over-the-turn funding for the global organization. Growth of M2 and M3 from the fourth quarter of 1998 to the fourth quarter of this year, at 6 percent and 7-1/2 percent, respectively, exceeded the annual ranges of 1 to 5 percent and 2 to 6 percent, respectively, for these aggregates.<sup>3</sup>

(5) The expansion of the debt of domestic nonfinancial sectors has slowed a little in recent months, mostly reflecting a steeper paydown in federal debt. Only a slight decline in federal debt is expected in this month as the Treasury seeks to build an elevated cash balance at year-end. Business borrowing has remained brisk, both in capital markets and at banks. Data on household borrowing, while limited for recent months, point to continued solid expansion in the fourth quarter. From the fourth quarter of 1998 to the fourth quarter of 1999, total domestic nonfinancial debt is estimated to have grown 6-1/2 percent, about the same as last year and toward the upper end of the 3 to 7 percent range, implying that debt velocity fell about 1 percent over the same period.

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3. A Greenbook appendix provides further discussion of money and credit growth over the year.

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

	Sep.	Oct.	Nov.	1998:Q4 to Nov. <sup>2</sup>
<u>Money and Credit Aggregates</u>				
M1	-9.6	5.6	10.4	1.9
Adjusted for sweeps	-5.8	5.9	9.8	5.2
M2	5.1	5.2	5.5	6.0
M3	6.0	9.5	16.9	7.6
Domestic nonfinancial debt	7.1	6.6	n.a.	6.7
Federal	-4.2	-5.8	n.a.	-2.3
Nonfederal	10.2	10.0	n.a.	9.5
Bank credit	6.4	5.0	18.2	3.8
Adjusted <sup>1</sup>	6.6	6.2	18.1	5.2
<u>Reserve Measures</u>				
Nonborrowed reserves	1.5	-32.0	9.1	-7.9
Total reserves	1.3	-33.3	7.6	-7.6
Adjusted for sweeps	3.4	-14.8	7.9	2.4
Monetary base	11.3	16.6	26.3	11.8
Adjusted for sweeps	11.0	16.0	25.2	12.1
Memo: (millions of dollars)				
Adjustment plus seasonal plus SLF borrowing	338	281	236	--
Excess reserves	1197	1153	1331	--

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.

1. Adjusted to remove the effects of mark-to-market accounting rules (FIN 39 and FASB 115).

2. For nonfinancial debt and its components, 1998:Q4 to October.

## Policy Alternatives

(6) Reflecting robust incoming data on spending and further gains in stock prices over the intermeeting period, the staff has again revised up its assessment of aggregate demand over the next two years. In view of this strength, the staff sees the need for a steeper trajectory of monetary policy tightening than in the previous Greenbook to produce the financial conditions necessary to limit further tightening in labor markets. The funds rate target is assumed to rise to 6-1/4 percent by late next year, contributing to some further increase in longer-term interest rates. The upward movement in rates and disappointing news on corporate earnings are expected to hold equity prices near their current levels on average over the forecast period. Output growth is projected to slow slightly from this year's pace, keeping the unemployment rate near 4 percent in 2000 and 2001. In these circumstances, inflation in the core consumer price index is projected to pick up next year and still further in 2001, reaching 2-3/4 percent in the latter year; overall consumer price inflation runs in the 2-1/4 to 2-1/2 percent range over the next two years, restrained by anticipated declines in energy prices.

(7) Given the circumstances of the looming century date change, the economic outlook might not weigh as significantly in the Committee's consideration of its action at this meeting as is usual. The Committee might see the heightened potential for financial dislocation at this time as sufficient reason to keep policy on hold at this meeting, choosing **alternative B**. Although financial markets have been much more liquid in recent weeks than many participants had anticipated earlier in the year, various indicators still suggest that

trading is likely to be thin and investors unusually risk averse around year-end. Market participants have apparently interpreted Federal Reserve actions to deal with potential liquidity problems around the century date change, along with the adoption of a symmetric directive at the last meeting, as virtually ensuring that the intended federal funds rate would be left unchanged this month. With this prevailing expectation, a monetary tightening would prompt substantial adjustments in portfolios. The extent of the resulting drop in market prices could well be exacerbated by the thinness of markets and by the urgency that market participants are likely to feel to complete their adjustments quickly before market liquidity erodes further. Under the circumstances, the Committee may not want to incur even the small risk of a potentially costly market disruption that might follow a policy tightening, especially when any increase in inflation pressures resulting from a short delay would be quite limited. Overall consumer price inflation is expected to moderate a little, which should help damp inflation expectations, and most of the restraining effects of a near-term policy firming are already built into financial market prices.

(8) Even abstracting from century date change considerations, the Committee might not be persuaded that policy does in fact need to tighten over the next few months. Incoming data over the intermeeting period have suggested that cost pressures and price increases have remained subdued despite strong economic growth, perhaps because productivity gains have been still greater than expected. This combination could be viewed as suggesting that the economy can run with unusually taut labor markets for some time longer before underlying inflation pressures intensify. On the demand side, the Committee

may feel that the 75 basis points of tightening implemented to date may result in more restraint on demand than in the staff forecast. Premature or unnecessary tightening would tend to hold gains in output and employment over the intermediate term below the economy's full potential. In light of uncertainties on both the supply and demand sides of the economy, the Committee might see considerable benefits in awaiting more data with which to evaluate underlying trends.

(9) If the Committee believes that there is a reasonable possibility that macroeconomic fundamentals could be balanced enough to make tightening unnecessary within the next few months, it should choose a symmetric directive.<sup>4</sup> Such a directive, accompanied by an announcement that emphasized that inflation could remain subdued despite the strength of the demand, would cause market participants to take out much of the tightening of monetary policy during the early part of 2000 that is currently built into financial quotations. Although the thinness in markets in advance of year-end makes reactions difficult to gauge, interest rates could drop appreciably, especially at intermediate maturities, as those expectations were unwound, and equity markets would rally further. The value of the dollar on foreign exchange markets could edge lower. However, these market responses may be damped if the announcement were only perfunctory--that is, not accompanied by any explanation--leaving open the possibility that the symmetry was

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4. The discussion in this bluebook assumes that at this meeting the Committee will retain the current treatment of the tilt in the directive rather than implementing new tilt language and disclosure policy.

motivated by concerns about the century date change rather than a sense that policy was in fact equally likely to tighten or to ease in coming months.

(10) If, in contrast, the Committee were concerned about mounting inflation pressures and, as a consequence, saw reasonably high odds that it might tighten in the next few months, it might want to convey a sense of these odds to market participants so that the possibility of firming would remain built into the structure of market interest rates. However, the Committee's desire at the same time not to add to market uncertainty and volatility around the century date change may raise the issue of how best to impart its assessment of the risks. Announcement of a shift from the existing symmetric directive to a directive tilted toward tightening would most readily communicate concerns about incipient price pressures and the likelihood of action in February. Although the wording of the announcement could effectively rule out a firming in the weeks surrounding the century date change, a drawback of this approach is that the asymmetry might be highlighted in press accounts, running some risk of unsettling markets when they are vulnerable to dislocation. Even more assurance to market participants that an intermeeting tightening was not imminent might be provided by adopting a symmetric directive, while using the announcement to give the Committee's sense of a risk of heightened inflation pressures going forward; such assurance would be bought at the expense of possibly adding to confusion in markets about the Committee's use of biases and their meaning. Many market participants expect adoption of an asymmetric directive, and the structure of interest rates already appears to embody at least 75 percent odds of a tightening in February. As a

consequence, while rates might firm a little as a tightening in February came to be perceived as more assured under either variant, any increase would likely be small.

(11) As noted, considerations relating to the century date change would seem to militate against tightening at this meeting. Nonetheless, the Committee might wish to contemplate the 25 basis point tightening of policy at this meeting under **alternative C**--perhaps as background for selection of an asymmetric directive or even for consideration of an intermeeting move once risks associated with the century date change have faded. In the staff forecast, core inflation picks up--and is poised to move higher beyond the projection horizon--even with 75 basis points of further tightening and the more rapid rates of productivity growth that the staff has built into the forecast over recent months. In effect, faster productivity growth, other things equal, needs to be reflected at some point in higher real interest rates to keep the influences of the associated boost to earnings--working on the demands for capital goods and, through wealth, on consumption--from driving aggregate demand further beyond aggregate supply. Still higher interest rates would be needed to bring the levels of demand and supply into balance so as to forestall rising inflation. Indeed, based on incoming spending data and the continued upward march of equity prices, the Committee may see the risks to aggregate demand as having shifted further to the upside over recent months, possibly requiring more restrictive financial conditions than assumed in the staff forecast just to keep the output gap from widening. A firming action at this meeting or in mid-January would be only a little prompter than in the staff forecast. But it is likely to be associated with a sharper rise in market interest rates as market participants

inferred from the timing of the action that the Federal Reserve was much more concerned about near-term inflation risks than they had perceived and was on a steeper tightening path than now incorporated in the yield curve. As noted above, a tightening at this meeting would pose some risk of prompting financial market disruptions.

(12) Assuming the selection of alternative B and no significantly untoward developments over year-end, some further abatement of the unusual risk aversion and demand for liquidity currently evident in markets should be apparent over the first few weeks of 2000. Risks spreads could narrow somewhat, but they should remain wider, and other credit terms tighter, than in the period before the market disruptions in the summer and fall of 1998. Measured from October to March, domestic nonfinancial sector debt is expected to expand at a 5-1/2 percent pace, roughly in line with nominal income, placing this aggregate in March in the upper half of its 3 to 7 percent provisional range.

(13) After its Y2K-related runup late in the year, expansion of the monetary aggregates is expected to moderate substantially over the first few months of the new year. Currency growth should slow sharply. Similarly, the recent surge in large time deposits should substantially unwind, as bank credit growth settles down from its Y2K-related bulge and depository institutions return to more typical funding patterns. M2 also should continue to respond to the earlier tightenings in the stance of monetary policy and the associated widening in the opportunity cost of holding retail monetary assets. From December to March, M2 and M3 are projected to grow at 4 and 3-3/4 percent annual rates, respectively under alternative B. Measured over the October-to-March period to abstract

from most Y2K influences, M2 is forecast to expand at a 5-1/2 percent rate under that alternative. This growth would leave this aggregate in March at the upper end of its provisional 1 to 5 percent annual range. M3 is projected to expand at an 8-1/2 percent pace over the same period, placing it in March somewhat above its provisional 2 to 6 percent annual range.

**Directive Language**

(14) Presented below for the members' consideration is the operational paragraph for the intermeeting period

**OPERATIONAL PARAGRAPH**

To promote the Committee's long-run objectives of price stability and sustainable economic growth, the Committee in the immediate future seeks conditions in reserve markets consistent with MAINTAINING/~~increasing~~/DECREASING the federal funds rate AT/to an average of around \_\_\_ 5-1/2 percent. In view of the evidence currently available, the Committee believes that prospective developments are equally likely to warrant an increase or a decrease [MORE LIKELY TO WARRANT AN INCREASE/A DECREASE THAN A DECREASE/AN INCREASE] in the federal funds rate operating objective during the intermeeting period.

Alternative Growth Rates for Key Monetary and Credit Aggregates

	M2		M3		Debt	
	Alt. B	Alt. C	Alt. B	Alt. C	All Alternatives	
<b>Monthly Growth Rates</b>						
Oct-99	5.2	5.2	9.5	9.5	6.6	
Nov-99	5.5	5.5	16.9	16.9	4.9	
Dec-99	8.8	8.8	14.1	14.1	5.8	
Jan-00	5.2	5.2	9.5	9.5	6.6	
Nov-99	5.5	5.5	16.9	16.9	4.9	
Dec-99	2.7	2.3	-1.8	-2.0	5.8	
Feb-00	4.0	3.2	5.1	4.7	5.6	
Mar-00	5.5	4.7	8.1	7.7	5.8	
<b>Quarterly Averages</b>						
1999 Q1	7.2	7.2	7.6	7.6	6.7	
1999 Q2	5.8	5.8	5.8	5.8	7.0	
1999 Q3	5.3	5.3	5.5	5.5	6.0	
1999 Q4	5.7	5.7	10.4	10.4	6.3	
2000 Q1	5.0	4.6	6.4	6.2	5.7	
<b>Growth Rate</b>						
From	To					
Oct-99	Mar-00	5.4	4.9	8.6	8.4	5.6
Nov-99	Mar-00	5.3	4.8	6.4	6.2	5.8
Dec-99	Mar-00	4.1	3.4	3.8	3.5	5.8
1998 Q4	Nov-99	6.0	6.0	7.6	7.6	6.6
1997 Q4	1998 Q4	8.5	8.5	10.9	10.9	6.7
1998 Q4	1999 Q4	6.1	6.1	7.5	7.5	6.6
1999 Q4	Mar-00	5.0	4.5	6.6	6.4	5.7
1999 Annual Range		1 to 5		2 to 6		3 to 7
2000 Annual Range (provisional)		1 to 5		2 to 6		3 to 7

Chart 3

### Actual and Projected M2

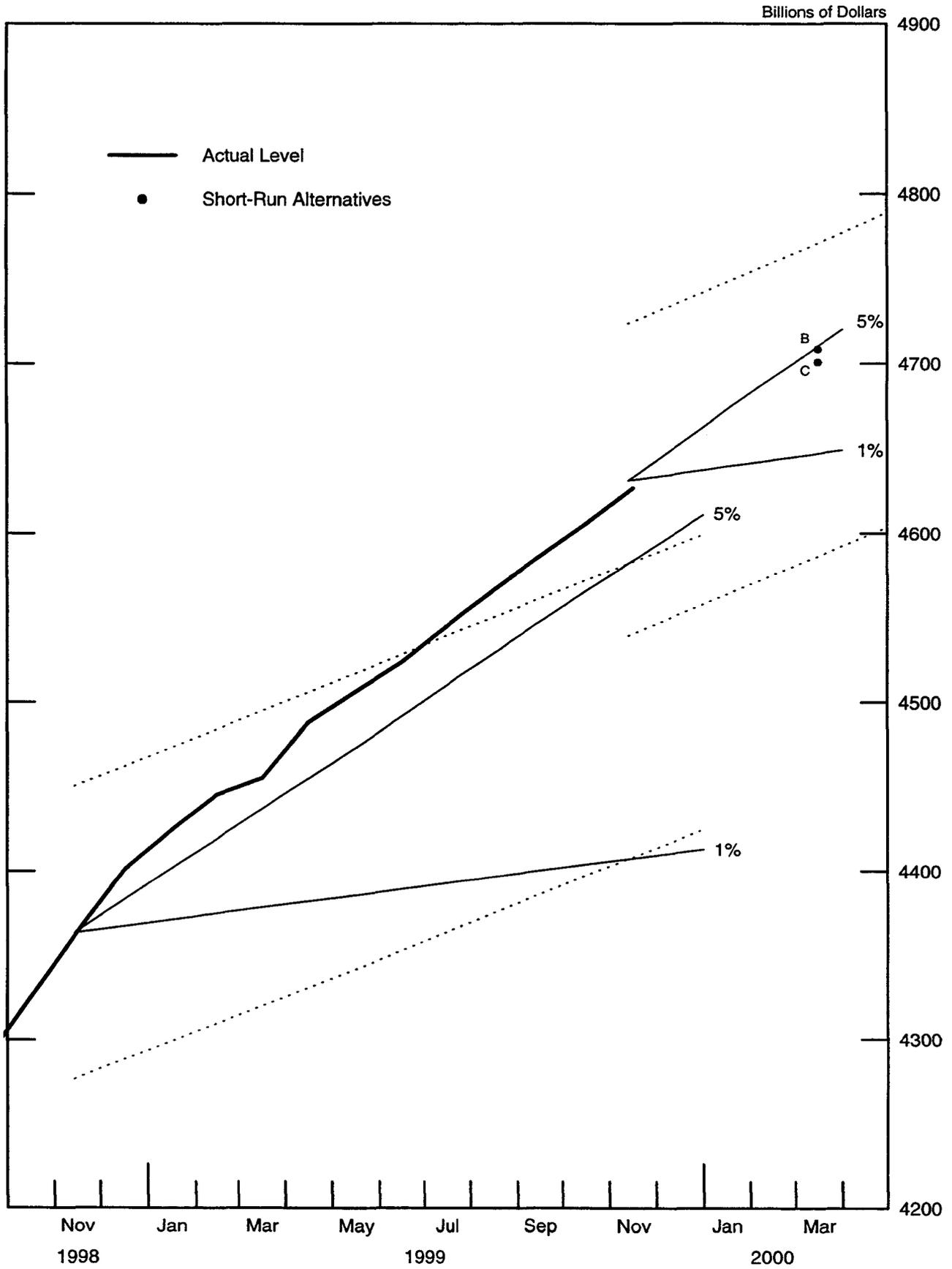


Chart 4

### Actual and Projected M3

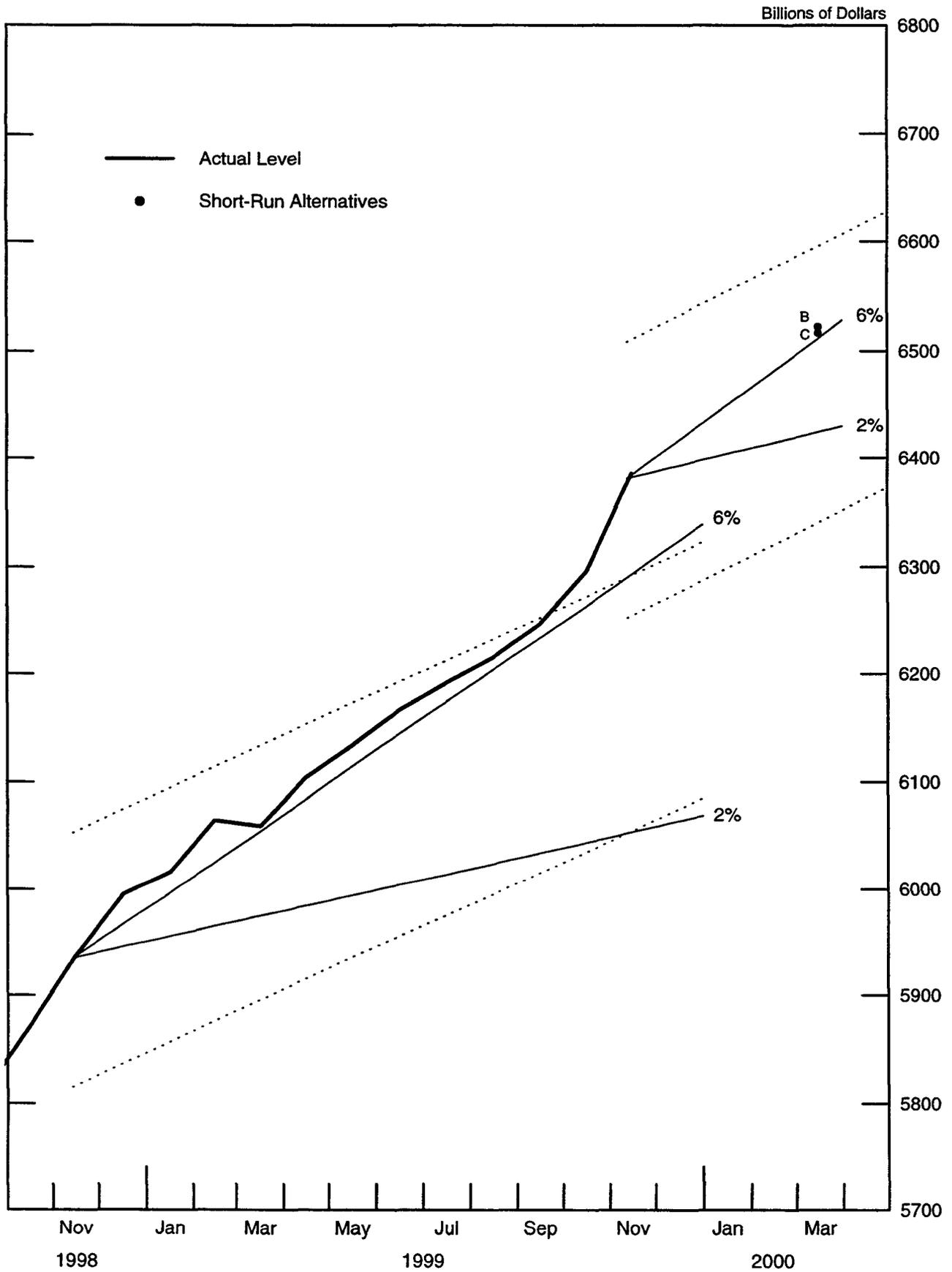
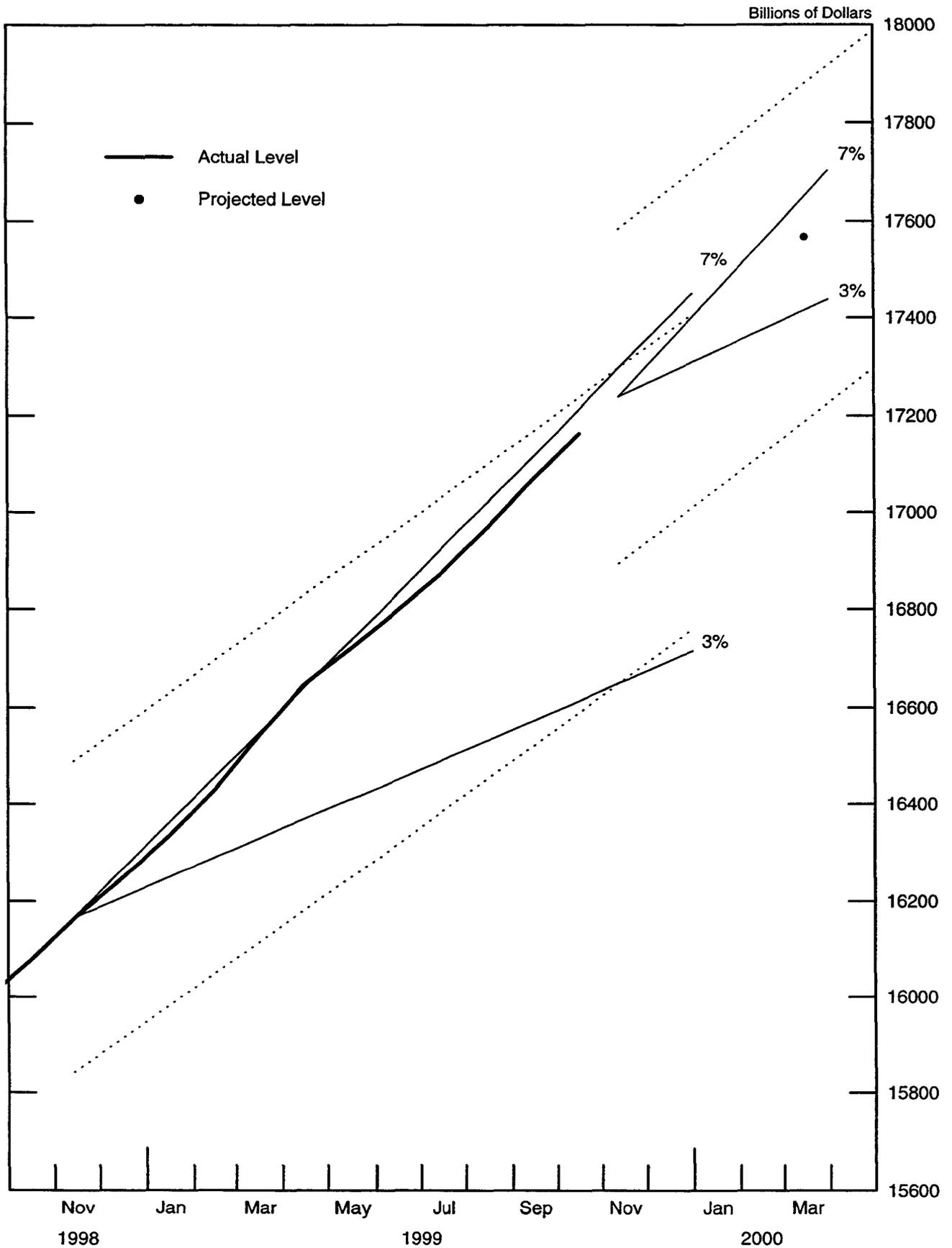


Chart 5

### Actual and Projected Debt



**SELECTED INTEREST RATES**  
(percent)

December 20, 1999

	Short-term						Long-term									
	Federal funds	Treasury bills secondary market			CDs secondary market	Comm. paper	U.S. government constant maturity yields				Indexed yields		Moody's Baa	Municipal Bond Buyer	Conventional home mortgages primary market	
		3-month	6-month	1-year	3-month	1-month	3-year	5-year	10-year	30-year	5-year	10-year			Fixed-rate	ARM
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
98 -- High	5.87	5.24	5.24	5.23	5.74	5.71	5.70	5.72	5.75	6.05	3.93	3.82	7.42	5.52	7.22	5.71
-- Low	4.56	3.84	3.94	3.84	5.13	4.84	4.15	4.17	4.41	4.88	3.44	3.55	7.01	5.09	6.49	5.35
99 -- High	5.59	5.23	5.48	5.51	6.15	6.11	6.11	6.14	6.24	6.34	3.98	4.24	8.44	6.18	8.15	6.49
-- Low	4.42	4.20	4.30	4.29	4.86	4.76	4.58	4.56	4.67	5.12	3.61	3.76	7.24	5.17	6.74	5.56
Monthly																
Dec 98	4.68	4.39	4.40	4.32	5.14	5.24	4.48	4.45	4.65	5.06	3.75	3.80	7.23	5.23	6.72	5.55
Jan 99	4.63	4.34	4.33	4.31	4.89	4.80	4.61	4.60	4.72	5.16	3.73	3.81	7.29	5.23	6.79	5.60
Feb 99	4.76	4.44	4.44	4.48	4.90	4.80	4.90	4.91	5.00	5.37	3.70	3.79	7.39	5.27	6.81	5.65
Mar 99	4.81	4.44	4.47	4.53	4.91	4.82	5.11	5.14	5.23	5.58	3.84	3.90	7.53	5.31	7.04	5.77
Apr 99	4.74	4.29	4.37	4.45	4.88	4.79	5.03	5.08	5.18	5.55	3.72	3.90	7.48	5.29	6.92	5.60
May 99	4.74	4.50	4.56	4.60	4.92	4.79	5.33	5.44	5.54	5.81	3.65	3.85	7.72	5.37	7.15	5.72
Jun 99	4.76	4.57	4.82	4.82	5.13	4.95	5.70	5.81	5.90	6.04	3.78	3.94	8.02	5.53	7.55	5.91
Jul 99	4.99	4.55	4.58	4.75	5.24	5.06	5.62	5.68	5.79	5.98	3.94	4.01	7.95	5.61	7.63	5.99
Aug 99	5.07	4.72	4.87	4.91	5.41	5.18	5.77	5.84	5.94	6.07	3.96	4.03	8.15	5.81	7.94	6.18
Sep 99	5.22	4.68	4.88	4.96	5.50	5.28	5.75	5.80	5.92	6.07	3.89	4.05	8.20	5.92	7.82	6.20
Oct 99	5.20	4.86	4.98	5.12	6.13	5.28	5.94	6.03	6.11	6.26	3.85	4.12	8.38	6.12	7.85	6.27
Nov 99	5.42	5.07	5.20	5.24	6.00	5.37	5.92	5.97	6.03	6.15	3.87	4.10	8.15	6.10	7.74	6.36
Weekly																
Oct 15 99	5.19	4.84	4.94	5.11	6.13	5.28	5.92	6.03	6.11	6.28	3.88	4.14	8.40	6.11	7.85	6.31
Oct 22 99	5.15	4.97	5.03	5.16	6.15	5.27	5.99	6.09	6.18	6.34	3.83	4.13	8.44	6.17	7.93	6.30
Oct 29 99	5.22	4.96	5.10	5.20	6.14	5.27	6.01	6.09	6.16	6.30	3.83	4.12	8.42	6.18	7.96	6.35
Nov 5 99	5.25	4.98	5.10	5.15	6.07	5.27	5.87	5.95	6.00	6.12	3.83	4.10	8.27	6.09	7.84	6.34
Nov 12 99	5.25	5.05	5.16	5.19	5.96	5.26	5.83	5.88	5.96	6.06	3.84	4.08	8.13	6.08	7.67	6.30
Nov 19 99	5.47	5.10	5.22	5.25	5.97	5.42	5.91	5.95	6.02	6.11	3.87	4.09	8.06	6.10	7.69	6.35
Nov 26 99	5.57	5.12	5.27	5.33	5.96	5.47	6.00	6.03	6.10	6.22	3.91	4.11	8.12	6.11	7.75	6.45
Dec 3 99	5.59	5.13	5.33	5.39	6.00	5.63	6.08	6.13	6.20	6.30	3.93	4.15	8.17	6.14	7.84	6.49
Dec 10 99	5.44	5.09	5.33	5.37	6.03	5.88	6.00	6.03	6.13	6.22	3.94	4.17	8.08	6.13	7.84	6.45
Dec 17 99	5.44	5.23	5.48	5.51	6.08	6.11	6.11	6.14	6.24	6.32	3.98	4.24	--	6.17	7.86	6.49
Daily																
Dec 1 99	5.71	5.12	5.34	5.40	6.00	5.49	6.11	6.14	6.21	6.30	3.94	4.16	8.18	--	--	--
Dec 2 99	5.58	5.10	5.33	5.43	6.00	5.85	6.10	6.16	6.24	6.31	3.94	4.16	8.19	--	--	--
Dec 3 99	5.42	5.10	5.30	5.38	6.01	5.85	6.03	6.08	6.17	6.27	3.94	4.16	8.13	--	--	--
Dec 6 99	5.48	5.09	5.31	5.39	6.02	5.85	6.04	6.07	6.16	6.25	3.94	4.17	8.12	--	--	--
Dec 7 99	5.42	5.07	5.31	5.38	6.02	5.85	6.01	6.03	6.11	6.21	3.94	4.16	8.08	--	--	--
Dec 8 99	5.42	5.07	5.32	5.37	6.03	5.89	6.02	6.06	6.15	6.23	3.94	4.17	8.10	--	--	--
Dec 9 99	5.51	5.10	5.34	5.35	6.04	5.92	5.99	6.03	6.14	6.22	3.94	4.17	8.09	--	--	--
Dec 10 99	5.42	5.14	5.35	5.35	6.04	5.89	5.95	5.98	6.08	6.17	3.93	4.17	8.03	--	--	--
Dec 13 99	5.46	5.22	5.43	5.41	6.04	6.00	5.99	6.01	6.11	6.20	3.93	4.18	8.06	--	--	--
Dec 14 99	5.31	5.23	5.46	5.48	6.06	6.03	6.10	6.12	6.22	6.31	3.97	4.20	8.16	--	--	--
Dec 15 99	5.56	5.19	5.46	5.51	6.07	6.06	6.12	6.14	6.25	6.34	4.00	4.25	8.18	--	--	--
Dec 16 99	5.54	5.23	5.50	5.56	6.10	6.33	6.18	6.20	6.31	6.39	4.01	4.28	8.24	--	--	--
Dec 17 99	5.40 <sup>p</sup>	5.28	5.53	5.59	6.13	--	6.17	6.22	6.30	6.38	4.01	4.29	--	--	--	--

NOTE: Weekly data for columns 1 through 13 are week-ending averages. As of September 1997, data in column 6 are interpolated from data on certain commercial paper trades settled by the Depository Trust Company; prior to that, they reflect an average of offering rates placed by several leading dealers. Column 14 is the Bond Buyer revenue index, which is a 1-day quote for Thursday. 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 Debt Aggregates

Seasonally adjusted

December 20, 1999

Period	Money stock measures				Domestic nonfinancial debt			
	M1	M2	nontransactions components		M3	U. S. government <sup>1</sup>	other <sup>1</sup>	total <sup>1</sup>
			In M2	In M3 only				
	1	2	3	4	5	6	7	8
<b>Annual growth rates(%):</b>								
<b>Annually (Q4 to Q4)</b>								
1996	-4.5	4.6	8.6	15.3	6.8	3.8	6.0	5.4
1997	-1.2	5.7	8.5	19.2	8.8	0.8	6.7	5.2
1998	1.8	8.5	10.9	18.1	10.9	-1.1	9.3	6.7
<b>Quarterly(average)</b>								
1998-Q4	5.0	11.0	13.0	18.3	12.9	-2.8	9.2	6.3
1999-Q1	2.8	7.2	8.7	8.7	7.6	-3.1	9.6	6.7
Q2	3.5	5.8	6.5	5.8	5.8	-2.3	9.7	7.0
Q3	-2.3	5.3	7.8	5.9	5.5	-0.3	7.8	6.0
<b>Monthly</b>								
1998-Nov.	9.6	10.7	11.1	20.5	13.2	-2.6	9.9	7.0
Dec.	4.8	10.2	11.9	16.6	11.9	-2.6	8.5	5.9
1999-Jan.	-2.6	6.5	9.6	-1.7	4.3	-2.6	9.1	6.4
Feb.	1.8	5.6	6.8	20.5	9.5	-6.1	10.5	6.7
Mar.	10.3	2.7	0.2	-11.5	-1.1	0.0	10.9	8.5
Apr.	7.0	8.9	9.5	8.9	8.9	-1.7	10.2	7.5
May	-3.9	4.8	7.7	8.2	5.7	-5.1	8.3	5.3
June	-4.0	4.5	7.2	11.9	6.4	0.3	7.0	5.5
July	-1.7	5.7	8.0	3.4	5.1	1.4	6.8	5.6
Aug.	3.2	5.8	6.7	1.5	4.7	1.0	8.3	6.7
Sep.	-9.6	5.1	9.8	8.5	6.0	-4.2	10.2	7.1
Oct.	5.6	5.2	5.1	21.4	9.5	-5.8	10.0	6.6
Nov. p	10.4	5.5	4.0	48.0	16.9			
<b>Levels (\$billions):</b>								
<b>Monthly</b>								
1999-July	1099.5	4544.7	3445.1	1647.3	6192.0	3708.0	13169.0	16876.9
Aug.	1102.4	4566.7	3464.3	1649.3	6216.1	3711.0	13260.3	16971.3
Sep.	1093.6	4586.1	3492.5	1661.0	6247.1	3698.1	13373.0	17071.1
Oct.	1098.7	4606.0	3507.3	1690.6	6296.6	3680.1	13484.3	17164.4
Nov. p	1108.2	4627.2	3519.0	1758.2	6385.4			
<b>Weekly</b>								
1999-Nov. 1	1105.7	4623.3	3517.6	1706.1	6329.4			
8	1102.9	4605.0	3502.0	1742.0	6347.0			
15	1105.8	4614.3	3508.4	1758.6	6372.9			
22	1113.5	4639.6	3526.1	1768.5	6408.1			
29p	1108.6	4646.3	3537.6	1769.2	6415.5			
Dec. 6p	1111.4	4631.2	3519.8	1773.3	6404.5			

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

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

December 17, 1999

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					
1996	9,901	---	9,901	524	3,898	1,116	1,655	2,015	5,179	409	14,670	-7,849
1997	9,147	---	9,147	5,549	20,080	3,449	5,897	1,996	32,979	1,540	40,586	-5,202
1998	3,550	2,000	1,550	6,297	12,901	2,294	4,884	2,676	23,699	322	24,902	-11,981
1998 ---Q1	---	2,000	-2,000	1,501	2,262	283	743	478	4,311	60	2,251	-12,184
---Q2	3,550	---	3,550	1,369	2,993	495	---	286	4,571	99	8,022	-13,549
---Q3	---	---	---	2,024	4,524	654	1,769	1,311	7,659	98	7,536	-10,034
---Q4	---	---	---	1,403	3,122	862	2,372	602	7,158	65	7,093	-9,477
1999 ---Q1	---	---	---	3,163	5,180	681	3,019	492	11,551	27	11,524	-8,004
---Q2	---	---	---	3,978	8,751	2,594	3,152	726	17,749	52	17,697	-10,271
---Q3	---	---	---	2,341	1,272	447	1,075	41	5,094	21	5,073	-8,257
1998 December	---	---	---	---	---	---	---	---	---	30	-30	-6,096
1999 January	---	---	---	---	---	---	615	492	123	2	121	-7,799
February	---	---	---	2,103	2,752	335	---	---	5,190	---	5,190	-10,380
March	---	---	---	1,060	2,428	346	2,404	---	6,238	25	6,213	-7,243
April	---	---	---	1,677	3,362	945	262	726	5,520	---	5,520	-8,603
May	---	---	---	1,421	4,442	1,584	2,890	---	10,337	---	10,337	-10,368
June	---	---	---	880	948	65	---	---	1,893	52	1,841	-12,644
July	---	---	---	951	---	---	---	41	910	10	900	-11,355
August	---	---	---	429	1,272	447	1,075	---	3,223	11	3,212	-10,868
September	---	---	---	960	---	---	---	---	960	---	960	-4,894
October	---	---	---	---	---	---	---	170	-170	50	-220	-30
November	---	---	---	964	1,014	---	925	---	2,903	7	2,896	17,495
Weekly												
September 8	---	---	---	---	---	---	---	---	---	---	---	-5,213
15	---	---	---	960	---	---	---	---	960	---	960	-7,266
22	---	---	---	---	---	---	---	---	---	---	---	-3,449
29	---	---	---	---	---	---	---	---	---	---	---	-4,985
October 6	---	---	---	---	---	---	---	---	---	10	-10	-3,080
13	---	---	---	---	---	---	---	---	---	30	-30	-1,854
20	---	---	---	---	---	---	---	170	-170	---	-170	1,610
27	---	---	---	---	---	---	---	---	---	10	-10	373
November 3	---	---	---	---	---	---	---	---	---	---	---	7,313
10	---	---	---	---	---	---	---	---	---	7	-7	8,703
17	---	---	---	964	---	---	---	---	964	---	964	18,106
24	---	---	---	---	1,014	---	925	---	1,939	---	1,939	19,496
December 1	---	---	---	---	---	---	---	---	---	---	---	29,351
8	---	---	---	---	---	---	875	---	875	---	875	29,293
15	---	---	---	---	1,257	901	62	---	2,220	---	2,220	36,513
Memo: LEVEL (bil. \$) <sup>6</sup>												
December 15			215.7	56.7	124.6	51.1	66.3		298.7		513.6	42.2

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 (+) and matched sale-purchase transactions (-).

6. The levels of agency issues were as follows:

within 1 year	1-5	5-10	over 10	total
0.1	0.0	0.1	0.0	0.2

December 15