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DECEMBER 14, 2000

# 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

MONETARY POLICY ALTERNATIVES

Recent Developments

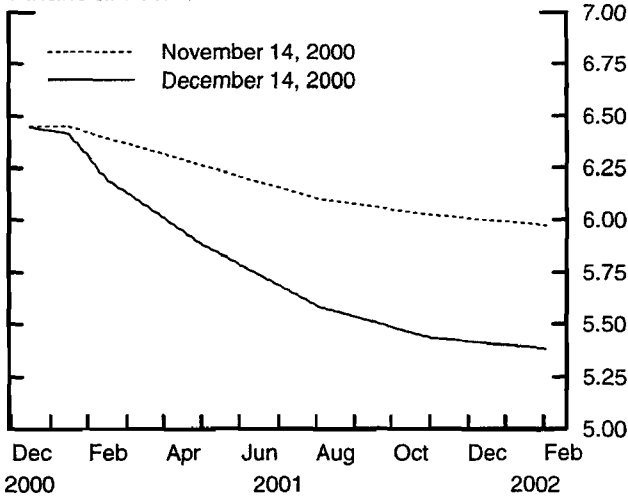
(1) Market expectations about the future course of monetary policy were revised down appreciably over the intermeeting period amid signs of weakening growth in economic activity, deteriorating conditions in some segments of financial markets, and public comments by monetary policy makers about the implications of these developments. Judging by futures market prices, investors have cut their forecasts of the federal funds rate at the end of 2001 about 1/2 percentage point since the last FOMC meeting, to around 5 1/2 percent (chart 1). Most market participants now expect the Committee to announce at this meeting that it sees the risks as evenly balanced, and they appear more confident that the target federal funds rate will be trimmed 25 basis points at the late-January meeting.<sup>1</sup> The shift in the economic and policy outlook pulled down yields on nominal Treasury coupon securities 35 to 55 basis points. Yields on ten- and thirty-year inflation-indexed securities declined less,

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1. The average effective federal funds rate was close to the 6 1/2 percent target over the intermeeting period. The Desk redeemed \$1.9 billion of Treasury securities to avoid exceeding its per-issue limits on holdings. It offset the resulting reserve drain and accommodated the seasonal demand for currency by purchasing \$3.9 billion of Treasury coupon securities in the market, acquiring \$517 million of Treasury bills from foreign customers, and increasing the volume of outstanding twenty-eight-day RPs by \$7 billion, to \$21 billion.

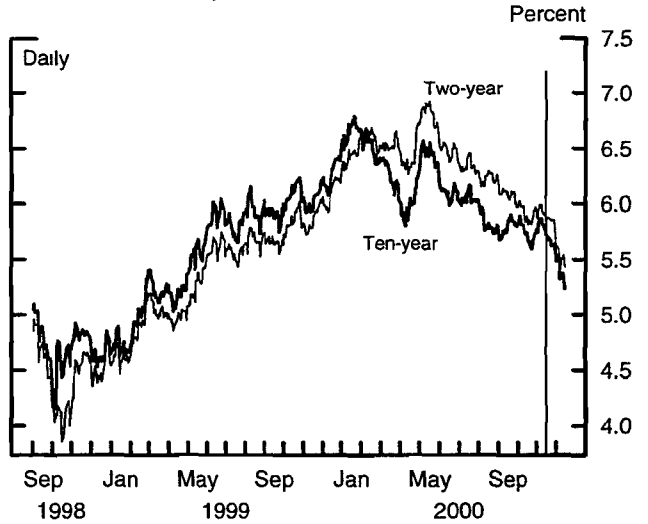
# Chart 1 Financial Market Indicators

**Expected Federal Funds Rates Estimated from Financial Futures\***



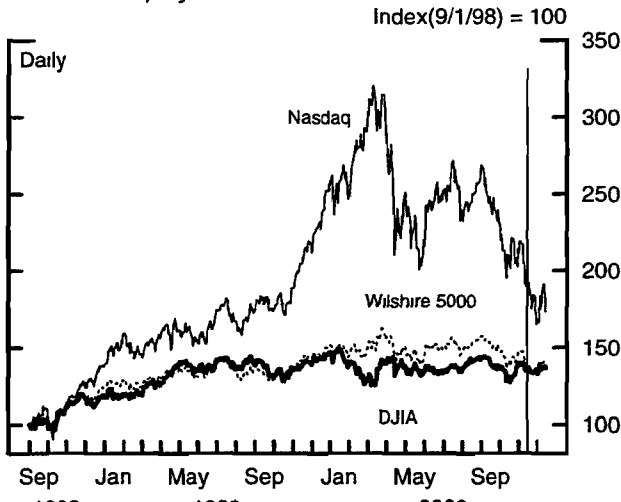
\*Estimates from federal funds and eurodollar futures rates with an allowance for term premia and other adjustments

**Selected Treasury Yields**



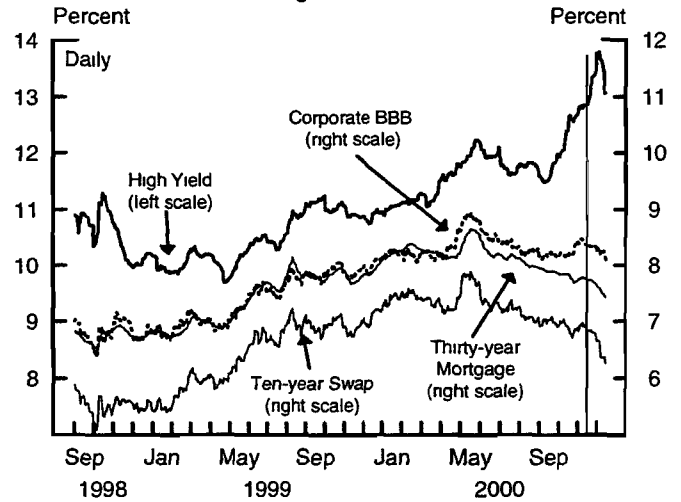
Vertical line indicates last FOMC date

**Selected Equity Indexes**



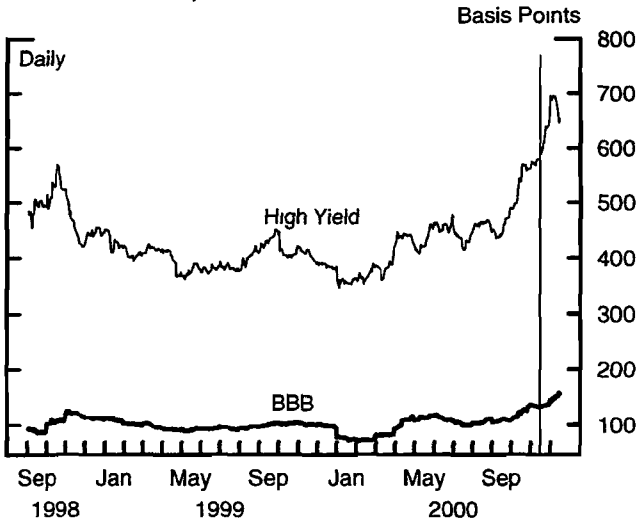
Vertical line indicates last FOMC date

**Selected Private Long-Term Yields**



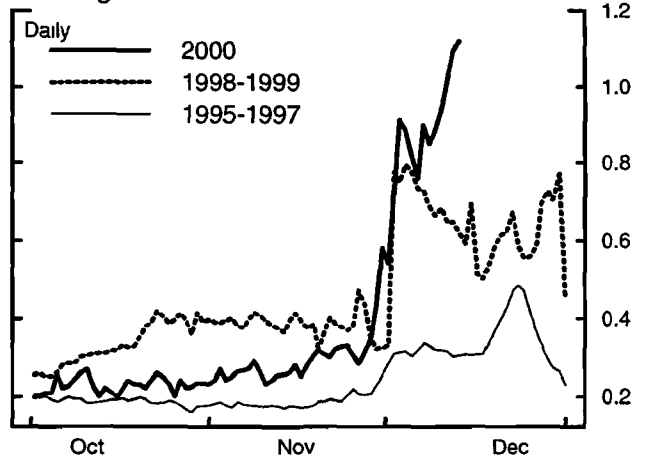
Vertical line indicates last FOMC date.

**Selected Risk Spreads\***



\*The spreads compare the yields on the Merrill Lynch 175 and BBB indexes with the Merrill Lynch AAA index. Vertical line indicates last FOMC date

**Spread of Low-Tier CP Rate over High-Tier CP Rate\***



\* 30-day nonfinancial, A2/P2 rate less A1/P1 rate

about 10 basis points. The narrowing gap between nominal and indexed yields may in part reflect a notable reduction in longer-term inflation expectations.

(2) The marking down of prospects for economic growth, along with additional warnings and negative reports on corporate earnings, weighed on equity prices and elevated risk spreads in securities markets, especially for firms with ratings at or below the lower end of the investment-grade scale. However, much of the marked drop in equity prices between the last FOMC meeting and the end of November was rolled back following statements by Federal Reserve officials that solidified expectations that policy would be eased in early 2001. On balance, broad indexes of equity prices fell 3 to 13 percent. Yields on higher-rated investment-grade bonds shed 40 to 50 basis points, in line with those on Treasury securities. Yields on lower-rated investment-grade issues were down somewhat less, bringing the total increase in their spreads over the highest-quality corporate rate to about  $\frac{3}{4}$  percentage point this year. Yields on junk bonds rose 20 basis points over the intermeeting period; their risk spreads widened 70 basis points, for a cumulative increase of nearly 3 percentage points since year-end 1999. Wariness about credit risk also became much more apparent in money markets. In the commercial paper market, rate spreads between top- and second-tier issues jumped 20 to 85 basis points on balance. The largest increase occurred at the one-month maturity, reflecting the inclusion of a considerable premium for taking on risk over the year-end as the maturity date of the

paper moved into 2001. Spreads also widened for paper whose maturity dates did not cross over into next year.<sup>2</sup>

(3) Business financing strengthened appreciably in November from its depressed level in October, but its composition reflected the disparate market conditions for high- and low-rated firms. Gross issuance of investment-grade corporate bonds surged as their yields fell and investors remained receptive to such offerings. In contrast, junk bond issuance was anemic. Gross equity issuance also rose, but was concentrated in seasoned, rather than initial, offerings. Bank lending to businesses remained subdued, perhaps reflecting weak capital spending as well as the more stringent lending standards and terms reported by banks over recent quarters. In the household sector, total consumer credit continued to grow at a moderate pace in October, down from the rapid increases of earlier this year; available data from banks for November do not suggest additional slowing. The decline in mortgage rates since the spring appeared to support residential mortgage growth. Federal debt continued to contract.

(4) M2 growth sagged to a  $2\frac{3}{4}$  percent annual rate in November, down from  $4\frac{1}{2}$  percent in October, but partial data for December suggest a bounceback

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2. Generally, year-end premiums for low-rated borrowers are as large as those in 1998 and 1999, which were periods of especially marked uncertainty characterized by elevated demands for safe and liquid investments and very high year-end premiums. In contrast, those for high-rated borrowers are even lower than in 1996 and 1997, when year-end premiums were more typical.

(chart 2).<sup>3</sup> Growth over October and November was much weaker than in the preceding two months, likely in response to the slower growth of income and spending since midyear. M2 growth may have received a boost going into December from temporary outflows from bond and equity mutual funds in the final weeks of November. Growth of M3 slowed less than that of M2 in November, in part owing to increased issuance of large time deposits as banks reduced their reliance on net borrowing from overseas offices. Even so, the expansion of M3 has been relatively sluggish in the past two months, reflecting the slow growth of bank credit.

(5) With perceptions mounting that growth of economic activity in the major foreign industrial countries—especially those in the euro area—was generally cooling by less than in the United States, yields on the longer-term government obligations of these countries fell somewhat less than those on U.S. Treasury securities over the intermeeting period. The foreign exchange value of the dollar declined about 1¼ percent against a basket of the major currencies, stemming largely from losses of 3¼ percent and 1¾ percent, respectively, vis-à-vis the euro and the Canadian dollar. A national election in Canada in late November decisively strengthened the ruling party’s parliamentary majority and helped buoy the Canadian dollar. By contrast, weaker-than-expected economic data, stalled business sentiment,

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3. A summary of the behavior of the monetary and debt aggregates over the year appears in the appendix, which can be found after page 15.





and political uncertainties in Japan weighed on the yen, which depreciated 4 percent on net against the U.S. dollar.<sup>4</sup>

(6) Vulnerabilities in several emerging markets contributed to a ½ percent appreciation of dollar's value against an index of the currencies of our other important trading partners over the intermeeting period. Banking sector problems in Turkey led to difficulty in maintaining that country's crawling foreign exchange peg. Overnight rates temporarily moved into the four-digit range to staunch capital flight, and Turkish longer-term risk spreads rose more than 200 basis points on balance over the intermeeting period. Concerns about weakness in the high-tech sector depressed financial markets in many Asian emerging market economies, especially in Korea and Taiwan. While the government of Argentina moved closer to enacting fiscal reforms, risk spreads on its debt remained elevated. Moreover, spreads on Brazilian and Mexican debt widened a little, suggesting some regional spillover of investor concerns. Still, global investors apparently distinguished among differing risks, and the overall emerging market bond spread rose only slightly, on net, over the intermeeting period.

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4. Neither the U.S. monetary authorities nor central banks in other major countries intervened in dollars over the intermeeting period.

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

	Sep. 2000	Oct. 2000	Nov. 2000	1999 Q4 to Nov. 2000 <sup>1</sup>
<u>Money and Credit Aggregates</u>				
M2	9.0	4.5	2.7	5.8
M3	8.8	4.0	3.2	8.7
Domestic nonfinancial debt	5.0	2.7	n.a.	5.2
Federal	-4.8	-10.0	n.a.	-6.6
Nonfederal	7.4	5.7	n.a.	8.4
Bank credit	11.6	-5.9	2.4	9.7
Adjusted <sup>2</sup>	8.1	-5.6	3.0	9.5
<u>Memo:</u>				
Monetary base <sup>3</sup>	3.2	3.2	-2.2	1.2
Adjusted for sweeps	3.9	3.7	-1.5	1.9

1. For nonfinancial debt and its components, 1999 Q4 to October 2000.

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

3. Adjusted for discontinuities associated with changes in reserve requirements.

## Policy Alternatives

(7) In light of weaker-than-expected economic data, a further tightening of financial conditions for riskier firms, and somewhat lower equity prices, the staff has marked down substantially its forecast of the path of spending. Output growth is projected to be especially soft in the near term, reflecting inventory adjustments in some industries as well as weaker spending on high-technology products. But, with the federal funds rate unchanged, economic growth returns to a pace not far below the growth of potential in 2002, buoyed by lower oil prices, the declining value of the dollar, and more stimulative fiscal policy. Pressures in labor markets ease over the projection period, with the unemployment rate rising to 5 percent by the final quarter of 2002—in the neighborhood of the staff's estimate of the short-run NAIRU at that time. Core consumer inflation is flat over the forecast period, albeit at a rate a bit above the average pace of the past couple of years, as the indirect effects of lower oil prices offset the effects of a weaker dollar and, over the first part of the period, still notable pressure on resources.

(8) If the Committee shares the staff's assessment of the economic fundamentals and views a period of subpar economic growth as not only likely but also necessary to stabilize core inflation, it might prefer the unchanged federal funds rate of **alternative B**. In addition, recent substantial revisions to the near-term outlook may suggest that the economic situation is quite fluid and that the degree of

conviction about any particular outcome is relatively low. Leaving policy unchanged would provide time for more evidence to accumulate that could potentially clarify the outlook for spending and productivity growth. Of course, this benefit must be weighed against the potential costs of inaction. In the current circumstances, the Committee may view economic conditions as implying that the potential costs of inaction at this meeting would be lower than usual if economic outcomes turn out differently than now anticipated. On the one hand, in the event of somewhat slower-than-expected economic growth going forward, the quicker dissipation of labor market pressures resulting from a short delay in easing policy might not be unwelcome, given that labor markets are very tight and inflation is probably at the high end of the range that might be considered acceptable in the long run. If, on the other hand, pressures on prices intensify because economic growth rebounds more promptly than expected or unit labor costs accelerate, then the Committee should have sufficient time to react before higher inflation becomes entrenched because long-term inflation expectations appear to be firmly anchored.

(9) If the Committee is not yet convinced that growth is likely to move enough below potential to offset continuing, though probably reduced, concerns that inflation will pick up, it may choose to retain the balance of risks statement weighted toward *heightened inflation pressures*. However, the Committee might see the changes to the outlook since its last meeting as large enough to justify a shift to a statement of

*balanced risks* or even one tilted toward *economic weakness*. Even if inflation still seems likely to edge higher, the weaker outlook for economic activity should reduce the acceleration in prices. And with output growth expected to be slower than potential, the Committee may at the same time have equal or greater concerns about achieving its other goal of sustainable economic growth. As already noted, in the staff forecast a flat nominal funds rate is sufficient to cap core consumer inflation at a rate a bit above its level of recent years and to raise the unemployment rate to the neighborhood of its natural rate, perhaps suggesting approximately balanced risks.<sup>5</sup> However, with expectations of growth in productivity and earnings evidently moving lower, equilibrium real interest rates likely have fallen in recent months, perhaps by more than implied by the staff forecast, suggesting higher odds of excessive economic weakness if the current stance of policy were maintained. Moreover, incoming data on spending, combined with the tightening of conditions in financial markets and deteriorating consumer sentiment, may also signal that there is an increased downside asymmetry to the outlook for aggregate demand.

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5. Ordinarily, one might expect that, with inflation unchanged, the real federal funds rate would be reduced as the unemployment rate rose, in order to minimize overshooting. But, the staff forecast is consistent with the real funds rate implicitly being in the neighborhood of its equilibrium level. In that case, the rise in the unemployment rate would represent a lagged adjustment to the previous increase of the real funds rate to that level, rather than the effects of a relatively high funds rate.

(10) While financial market participants expect policy to be eased early in 2001, they do not expect such an action at this meeting. They do anticipate that the Committee will move to a statement of balanced risks, which would be seen as opening up the possibility of a shift in the stance of policy in the near term. Given these expectations, the choice of alternative B with a statement of balanced risks should have little effect on financial markets. If the Committee instead reiterated that the risks are weighted toward increased inflation pressures, investors likely would push back the timing and reduce the odds and likely extent of easier policy next year. In that case, interest rates and the value of the dollar on foreign exchange markets would move higher, and equity prices would decline. By contrast, if the Committee announced that risks were weighted toward economic weakness, investors likely would increase the amount and move forward the timing of expected easing going forward. Bond and equity markets would rally, and the value of the dollar likely would decline. With the Federal Reserve seen as alert for signs of economic weakness, the response of markets to incoming data that pointed in that direction might be accentuated.

(11) If the Committee thinks that output growth is likely to slow appreciably more than envisioned in the staff forecast, then it might choose the 25 basis point easing of **alternative A**. Such an assessment of growth prospects might reflect concern that the reduced pace of economic expansion, additional financial difficulties,

and weaker earnings growth could be in the process of eroding consumer and business sentiment and tightening financial conditions more than in the Greenbook. In this circumstance, a prompt easing of policy, by bolstering asset values and confidence, might help short-circuit this interactive process. Easier policy also might be in order if the Committee believes output growth along the lines of the staff forecast is likely, but reads the evidence as suggesting a considerably higher sustainable level of output, and hence a correspondingly lower NAIRU, than estimated by the staff. Under these circumstances, even if the Committee thinks that some reduction in the level of demand on productive resources is appropriate, it might want to ease policy slightly now given both the lags with which changes in policy influence the economy and the substantial rise in the unemployment rate projected by the staff.

(12) With no policy move expected at this meeting, adoption of alternative A would presumably trigger a rally in bond and stock markets and a decline in the foreign exchange value of the dollar. The size of the resulting moves in asset markets would depend on the accompanying statement of the balance of risks. If the Committee announced that it believed risks to be in balance, investors could well interpret the easing as the Committee “buying insurance” against a possible further weakening of growth. Such an action would probably be viewed as mostly bringing forward in time policy actions that market participants already anticipate, but the effects in financial markets still would be substantial. An even larger effect could be

expected if the Committee instead announced that risks appeared to be weighted toward economic weakness, as investors came to expect a greater cumulative easing of policy.

(13) If the Committee judges that core inflation already has moved above the range consistent with effective price stability, and that the prospects for a reversal given the current stance of policy are small, then it might be inclined to tighten policy 25 basis points, as in **alternative C**. Such a move might appear more attractive if output growth were seen as unlikely to slow by as much as in the staff forecast, perhaps because the Committee believes that equity investors have already taken reduced earnings prospects into account, and so views equity prices as more likely to resume at least a gradual uptrend than to be flat as in the staff forecast. Moreover, the Committee may be concerned about the upside risks to labor costs that could result from workers either attempting to reverse the hit to real wages that has resulted from higher energy prices or to catch up with previous increases in productivity at a time when the acceleration in productivity may have ended.

(14) A policy tightening at this meeting would come as a considerable surprise. Even if the Committee shifted to a statement of balanced risks, expectations of policy easing likely would be reduced appreciably, and so the expected path of the federal funds rate would be significantly higher. Bond and stock prices would fall, and the dollar likely would rise. Risk spreads probably would widen further as



expectations of higher interest rates and slower growth boosted market participants' concerns about debt repayment problems.

(15) Under the staff forecast, credit conditions are expected to tighten only a little further, and primarily for marginal borrowers. While markets remain receptive to better credits, business borrowing from November to March is anticipated to be at a pace well below that of earlier this year. Growth in investment slows, but so too does growth in internal funds, and the stepdown in borrowing is attributable to slower accumulation of liquid assets and reduced merger activity by those firms facing less accommodative credit conditions. Household debt growth also should decline, as spending on durables increases more slowly than it has in recent years. Federal surpluses result in further substantial paydowns of Treasury debt. All told, the debt of domestic nonfinancial sectors is projected to advance at about a  $4\frac{3}{4}$  percent annual rate through March of next year, a bit below the growth in nominal GDP.

(16) From November through March, M2 is projected to expand at a  $4\frac{1}{2}$  percent annual rate, somewhat above the surprisingly slow pace of the last two months. The pickup brings growth in M2 close to that of spending, reflecting in part the waning of the effects of previous tightenings. M3 growth is expected to rebound from its lows in October and November as bank credit growth picks up. However, with the expansion of bank credit seen as fairly weak in the months ahead, M3 is projected to advance at a rate well below that of earlier in the year.

## Directive and Balance-of-Risks Language

(17) Presented below for the members' consideration is draft wording for (1) the directive and (2) the balance-of-risks sentence to be included in the press release issued after the meeting.

### (1) Directive Wording

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, 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 \_\_\_ ~~6~~<sup>6</sup>/<sub>2</sub> percent.

### (2) Balance-of-Risks Sentence

Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks [ARE BALANCED WITH RESPECT TO PROSPECTS FOR BOTH GOALS] [continue to be weighted mainly toward conditions that may generate heightened inflation pressures] [ARE WEIGHTED MAINLY TOWARD CONDITIONS THAT MAY GENERATE ECONOMIC WEAKNESS] in the foreseeable future.

Alternative Growth Rates for Key Monetary and Credit Aggregates

	M2			M3			M2	M3	Debt
	Alt. A	Alt. B	Alt. C	Alt. A	Alt. B	Alt. C	Greenbook Forecast*		
<b>Monthly Growth Rates</b>									
Sep-2000	9.0	9.0	9.0	8.8	8.8	8.8	9.0	8.8	5.0
Oct-2000	4.5	4.5	4.5	4.0	4.0	4.0	4.5	4.0	2.7
Nov-2000	2.7	2.7	2.7	3.2	3.2	3.2	2.7	3.2	4.0
Dec-2000	5.9	5.7	5.5	5.9	5.8	5.7	5.7	5.8	5.5
Jan-2001	4.6	4.0	3.4	5.8	5.5	5.2	4.0	5.5	2.7
Feb-2001	4.8	4.0	3.2	5.9	5.5	5.1	4.0	5.5	4.3
Mar-2001	5.3	4.5	3.8	5.9	5.6	5.2	4.5	5.6	6.4
<b>Quarterly Averages</b>									
1999 Q4	5.2	5.2	5.2	10.6	10.6	10.6	5.2	10.6	6.3
2000 Q1	6.3	6.3	6.3	11.3	11.3	11.3	6.3	11.3	5.6
2000 Q2	6.5	6.5	6.5	8.6	8.6	8.6	6.5	8.6	6.2
2000 Q3	4.7	4.7	4.7	8.3	8.3	8.3	4.7	8.3	4.7
2000 Q4	5.6	5.6	5.6	5.7	5.7	5.7	5.6	5.7	4.0
2001 Q1	4.8	4.3	3.8	5.6	5.4	5.1	4.3	5.4	4.3
<b>Growth Rate</b>									
Dec-1999 Nov-2000	5.7	5.7	5.7	7.8	7.8	7.8	5.7	7.8	5.0
Dec-1999 Dec-2000	5.8	5.7	5.7	7.7	7.7	7.7	5.7	7.7	5.1
Nov-2000 Mar-2001	5.2	4.6	4.0	5.9	5.7	5.4	4.6	5.7	4.8
Dec-1999 Mar-2001	5.6	5.5	5.3	7.4	7.3	7.3	5.5	7.3	5.0
1998 Q4 1999 Q4	6.2	6.2	6.2	7.7	7.7	7.7	6.2	7.7	6.8
1999 Q4 2000 Q4	5.9	5.9	5.9	8.8	8.8	8.8	5.9	8.8	5.2
1999 Q4 Nov-2000	5.8	5.8	5.8	8.7	8.7	8.7	5.8	8.7	5.2

\*This forecast is consistent with nominal GDP and interest rates in the Greenbook forecast.

## Appendix

### Review of Debt and Money Growth in 2000

A surging economy resulted in rapid growth of the debt and the monetary aggregates over the first half of the year, but the expansion of credit and money eased in the second half of the year as the pace of economic growth slowed markedly. Financial flows were also influenced by the tightening of monetary policy from mid-1999 through May of this year and by greater risk aversion shown by lenders toward the end of the year.

#### Domestic Nonfinancial Sector Debt

Aggregate debt of domestic nonfinancial sectors grew  $5\frac{1}{4}$  percent over 2000, a considerable slowdown from the almost 7 percent gains posted in 1998 and 1999.<sup>6</sup> Some of this slowdown is attributable to the federal government, which paid down  $6\frac{3}{4}$  percent of its debt, compared with  $2\frac{1}{2}$  percent last year. In addition, nonfederal debt growth moderated, falling to  $8\frac{1}{2}$  percent from a  $9\frac{1}{2}$  percent pace last year.

Business debt expanded strongly over the first half of 2000, propelled by rapid growth in capital spending, even as actual and anticipated monetary policy tightening pushed corporate borrowing rates higher, and by share repurchases and cash-financed merger activity. In the second half of the year, however, business borrowing slowed appreciably, as firms trimmed the pace of investment spending. Prospects for weaker economic growth, in combination with a substantial rise in the default rate on junk bonds and in repayment difficulties in the syndicated loan market, apparently caused lenders to reassess credit risks. Increasingly large fractions of banks firmed terms and standards on business loans over the course of the year, and financing conditions in the corporate bond market tightened significantly for issuers with lower credit ratings. Spreads between high-yield and investment-grade corporate bonds soared late in the year to levels above those seen in the fall of 1998. This widening was accompanied by substantial outflows from high-yield bond funds and a sharp cutback in junk bond issuance. Firms also had greater difficulty raising funds in the equity market, as the increased volatility of stock prices and the substantial drop in valuations in some sectors caused IPOs to fall off later in the year.

Growth in commercial mortgage debt slowed somewhat this year, to an estimated rate of  $9\frac{1}{2}$  percent. Fundamentals in the commercial real estate market appeared to remain solid, and delinquency rates on commercial mortgages stayed around their historic lows.

In the household sector, consumer credit grew rapidly in the first half of the year, boosted by continued strength in spending on durable goods, but slowed some in the second

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6. Annual growth figures are expressed as the change from the fourth quarter of the previous year to the fourth quarter of the current year using staff projections.

half as the expansion of consumer spending cooled. Growth in home mortgage debt over the year was relatively strong, easing only modestly from last year's pace. In total, household debt increased 8¾ percent in 2000, well above the expansion in disposable personal income. As a result, the household debt service burden rose further to a level just below the previous peak in the mid-1980s. Nevertheless, there was little deterioration in the performance of household loans, as delinquency rates on home equity loans, mortgage credit, and consumer credit edged only slightly higher. Household net worth relative to disposable income declined over the year as a result of falling equity prices, in contrast to the strong increases of recent years. Despite the considerable volatility in equity markets, households continued to accumulate equity mutual funds, favoring capital appreciation over less risky types of funds.

Growth of state and local government debt was anemic in 2000. Gross issuance of long-term municipal bonds was well below the robust pace of the past two years, as refunding offerings were held down by higher interest rates and the need to raise new capital was limited by strong tax revenues. Net issuance was also damped by paydowns of previously advance-refunded bonds. Credit quality in the municipal market improved considerably this year, with credit upgrades outnumbering downgrades by a substantial margin, except in the not-for-profit health care sector.

The federal government paid down debt at a rapid pace, as the budget surplus for fiscal 2000 rose to \$237 billion. To maintain large, regular issues of new securities in order to preserve their liquidity, the Treasury initiated a debt buyback program and repurchased \$30 billion par value of outstanding bonds over the year. The prospect of a considerable reduction in the supply of Treasury debt over coming years appeared to pull down Treasury yields relative to private yields and to contribute to an abrupt inversion of the Treasury yield curve early in the year. By the end of fiscal 2000, the stock of marketable Treasury debt had fallen about \$½ trillion from its peak in 1997. Through 1999, nonfederal debt had expanded enough to more than replace the reduction in Treasury debt, so that the ratio of overall nonfinancial debt to GDP actually rose modestly. This ratio fell in 2000, however, as the Treasury debt paydown accelerated and corporate borrowing slowed.<sup>7</sup>

## Depository Credit

Depository institutions continued to play an important role in meeting the demand for credit by businesses and households, as depository credit grew more strongly than total nonfinancial debt over 2000. Depository credit expanded rapidly through late summer, reflecting strong loan demand by households and businesses as well as a willingness of banks

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7. Among financial issuers (whose obligations are not included in domestic nonfinancial debt), Fannie Mae and Freddie Mac continued their efforts to offer liquid alternatives to Treasury securities. The outstanding stock of notes and bonds issued under the agencies' Benchmark and Reference programs surpassed \$300 billion. In addition, each firm had more than \$100 billion of bills outstanding under those programs.

to extend large volumes of credit given their ample capital base, solid profits, and expectations that the economy would continue to grow strongly. In the last four months of the year, however, depository credit growth declined appreciably, as household lending slowed to a moderate pace and business lending nearly dried up. Several banks also shed large amounts of government securities over that period.

Increasing proportions of domestic banks tightened standards and terms on business loans as the year progressed, with the share in the fourth quarter reaching the highest level since November 1991. Banks reportedly tightened credit conditions most aggressively on riskier loans, likely concerned by the continued rise in delinquency and charge-off rates on C&I loans. The tightening was also more severe for large and middle-market firms; fewer banks reported firming standards and terms for small businesses, consistent with surveys of small businesses indicating that few were having much difficulty obtaining credit. Most banks did not tighten credit conditions significantly for household loans.

### **Monetary Aggregates**

M3 expanded  $8\frac{3}{4}$  percent this year, above the  $7\frac{3}{4}$  percent pace in 1999. Growth again outpaced that of nominal income, and M3 velocity declined for the sixth year in a row. The increase in M3 was particularly robust over the first three quarters, as banks used the managed liabilities in this aggregate to help fund the rapid expansion of bank credit. Institutional money funds also grew briskly despite the tightening of policy early in the year. M3 growth receded in the final months of the year, as the flattening of bank credit led to a drop in the issuance of managed liabilities.

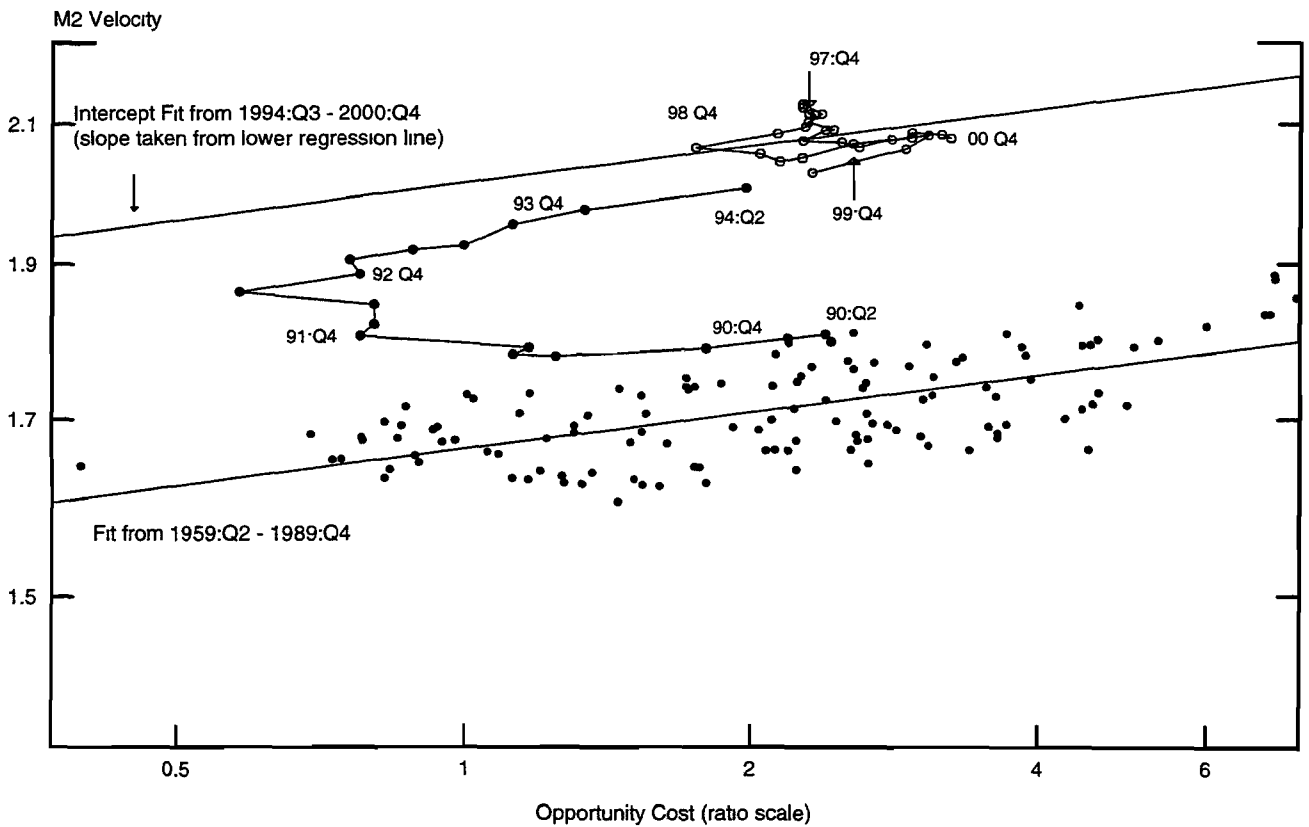
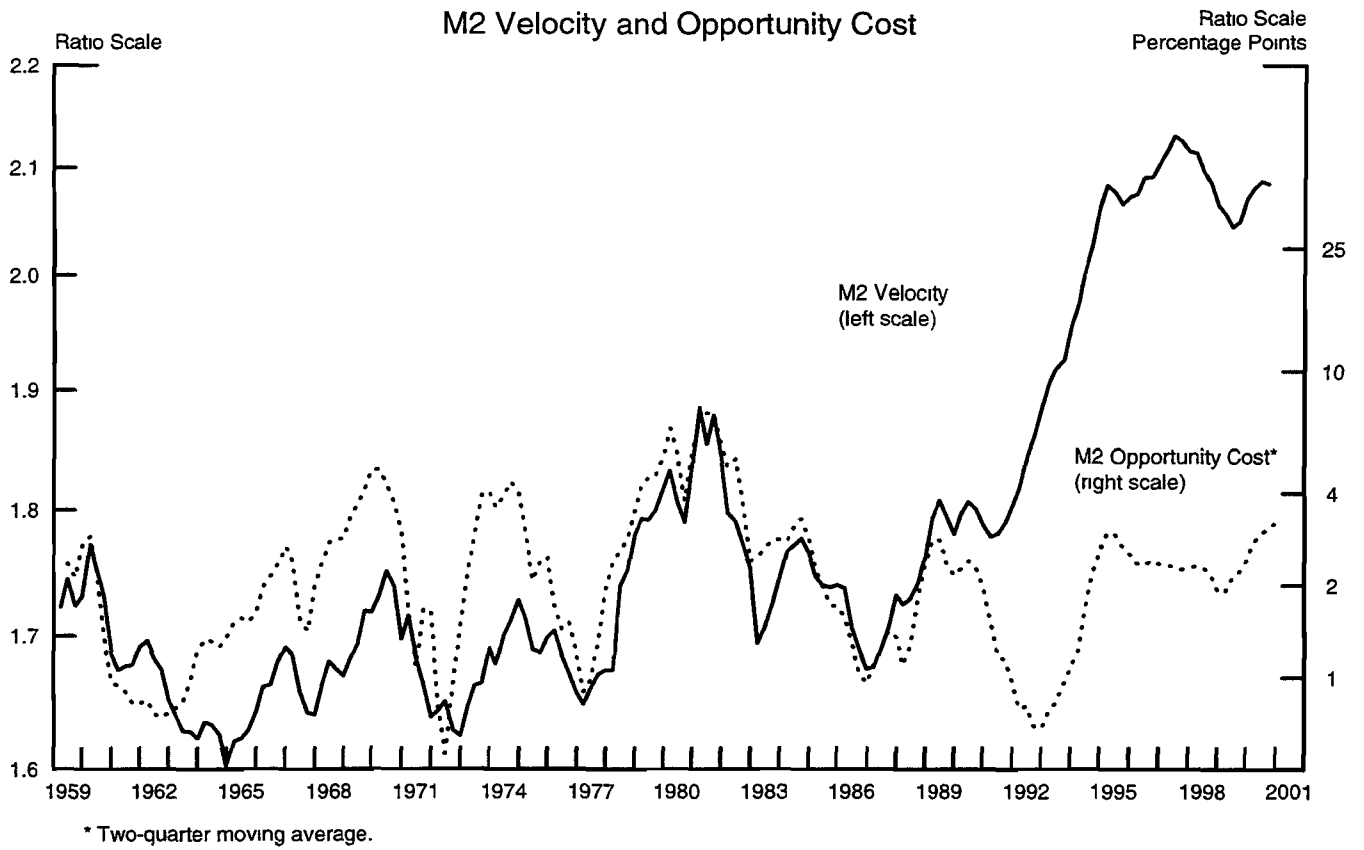
M2 grew about 6 percent in 2000, down modestly from  $6\frac{1}{4}$  percent in 1999. In part, the deceleration reflected the impact of rising short-term interest rates, which increased the opportunity cost of holding M2. The behavior of M2 over the year was largely consistent with the relationship between its velocity and opportunity cost observed over recent years. The depressing effects of higher interest rates were most apparent in the liquid deposit components, whose rates respond very sluggishly to movements in market rates. Growth in small time deposits and retail money market mutual funds, whose rates do not lag market rates as much, was considerably stronger. Currency growth was held down early in the year by a run-off of balances that had been elevated by Y2K concerns, and it has remained surprisingly sluggish over the remainder of the year, apparently reflecting weakness in both domestic and foreign demand.

**GROWTH OF THE CREDIT AND MONETARY AGGREGATES**  
(in percent)<sup>1</sup>

	1996	1997	1998	1999	2000
Domestic nonfinancial debt	5.3	5.4	6.9	6.8	5.2
Federal	3.8	0.8	-1.1	-2.5	-6.7
Nonfederal	5.9	7.0	9.6	9.6	8.4
Depository credit	4.3	6.5	8.5	6.1	8.8
Bank credit <sup>2</sup>	4.6	8.4	10.1	5.4	9.6
Thrift credit	3.6	0.7	3.3	8.5	6.3
M2	4.5	5.6	8.4	6.2	5.9
M3	6.8	8.9	10.9	7.7	8.8
Monetary base	3.6	5.9	7.1	12.4	1.3
Memo:					
Nominal gross domestic product	6.0	6.2	5.9	6.5	6.3
Components of the Monetary Aggregates					
Currency	5.5	7.5	8.4	10.9	4.0
Liquid deposits	3.4	4.3	8.9	5.9	3.2
Small time deposits	1.8	2.4	-1.3	-0.7	9.3
Retail money market mutual funds	13.9	15.1	23.2	13.5	11.1
Institutional money market mutual funds	21.9	23.0	35.2	17.2	23.4
Large time deposits	16.4	17.1	10.0	8.7	12.6

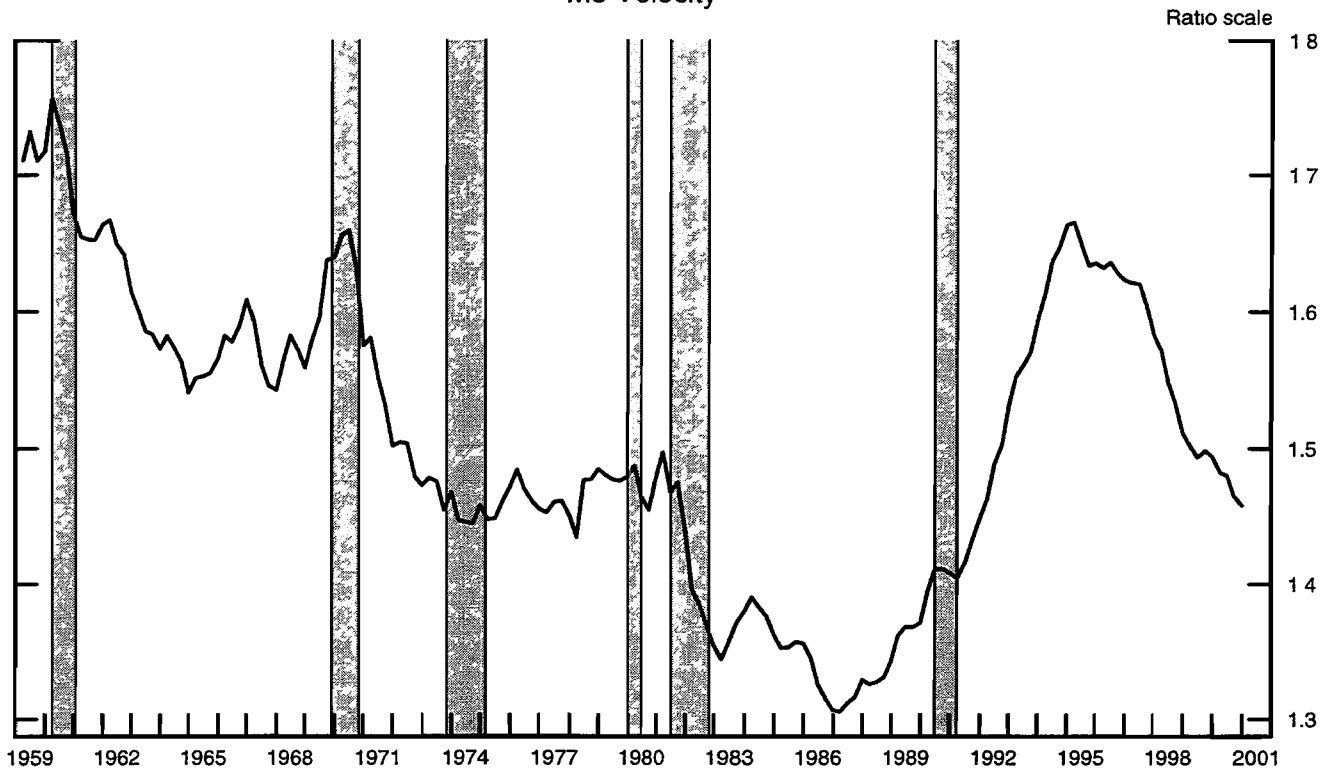
1. Growth rates are Q4 to Q4 averages based on seasonally adjusted data. Figures for 2000 are staff projections based on partial data.

2. Adjusted for the estimated effects of mark-to-market accounting rules.

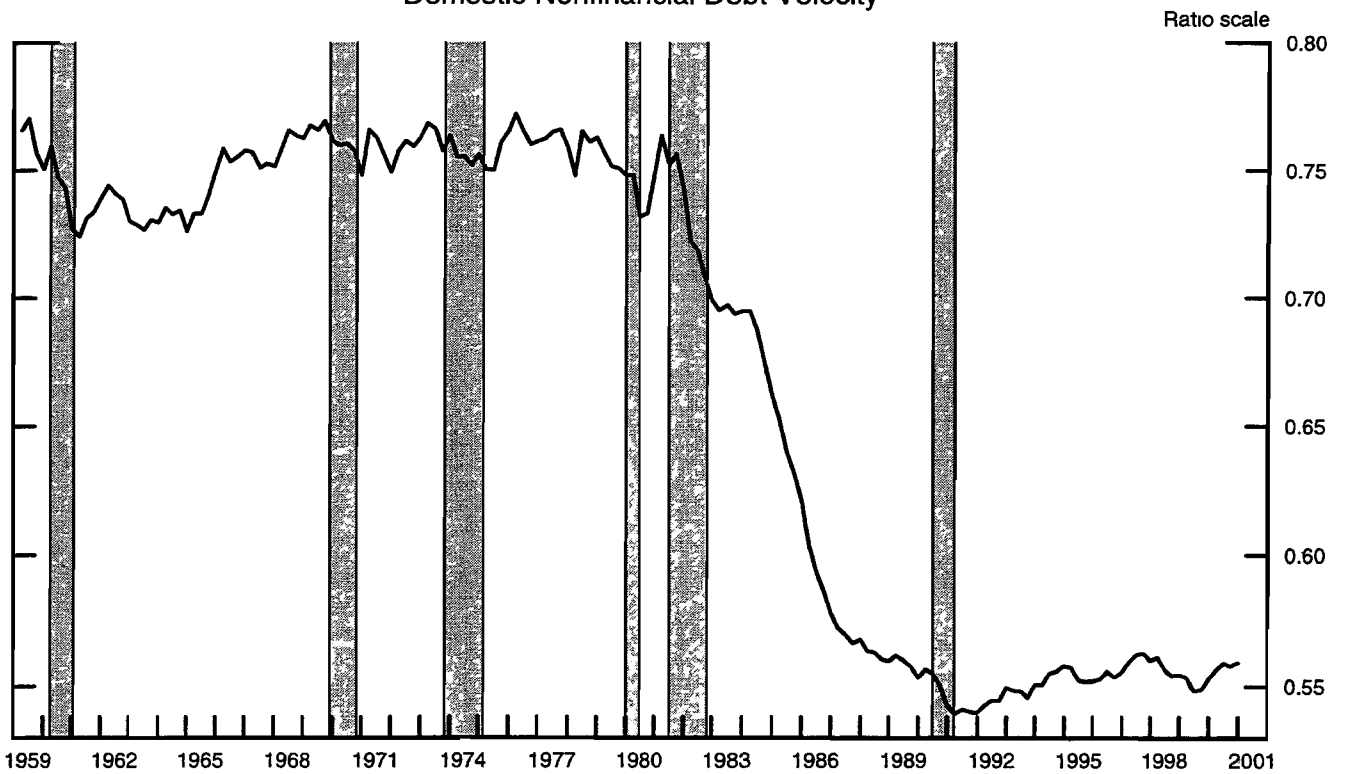




M3 Velocity



Domestic Nonfinancial Debt Velocity



**SELECTED INTEREST RATES**  
(percent)

	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	2-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	
99 -- High	5.59	5.54	5.82	5.96	6.16	6.33	6.23	6.33	6.41	6.46	4.03	4.33	8.44	6.23	8.15	6.64
-- Low	4.42	4.32	4.46	4.49	4.86	4.76	4.59	4.56	4.67	5.12	3.61	3.76	7.24	5.17	6.74	5.56
00 -- High	6.75	6.40	6.46	6.33	6.80	6.58	6.89	6.76	6.77	6.73	4.09	4.39	9.02	6.35	8.64	7.37
-- Low	5.05	5.41	5.67	5.77	5.93	5.54	5.49	5.27	5.31	5.50	3.44	3.78	8.10	5.59	7.42	6.56
Monthly																
Dec 99	5.30	5.35	5.68	5.83	6.05	5.97	6.10	6.19	6.28	6.35	3.99	4.25	8.19	6.18	7.91	6.53
Jan 00	5.45	5.47	5.75	6.10	5.95	5.59	6.44	6.58	6.66	6.63	4.06	4.36	8.33	6.31	8.21	6.61
Feb 00	5.73	5.72	5.99	6.21	6.01	5.76	6.61	6.68	6.62	6.23	4.05	4.28	8.29	6.29	8.33	6.72
Mar 00	5.85	5.86	6.11	6.21	6.14	5.93	6.53	6.50	6.26	6.05	3.86	4.15	8.37	6.15	8.24	6.72
Apr 00	6.02	5.82	6.07	6.12	6.28	6.02	6.40	6.26	5.99	5.85	3.67	3.98	8.40	6.01	8.15	6.80
May 00	6.27	5.96	6.38	6.25	6.71	6.40	6.81	6.69	6.44	6.15	3.94	4.14	8.90	6.23	8.52	7.07
Jun 00	6.53	5.85	6.23	6.17	6.73	6.53	6.48	6.30	6.10	5.93	3.98	4.08	8.48	6.05	8.29	7.24
Jul 00	6.54	6.13	6.27	6.07	6.67	6.49	6.34	6.18	6.05	5.85	3.86	4.02	8.35	5.89	8.15	7.28
Aug 00	6.50	6.27	6.35	6.18	6.61	6.47	6.23	6.06	5.83	5.72	3.73	3.99	8.26	5.78	8.03	7.29
Sep 00	6.52	6.17	6.25	6.13	6.60	6.48	6.08	5.93	5.80	5.83	3.69	3.97	8.35	5.78	7.91	7.27
Oct 00	6.51	6.28	6.31	6.03	6.67	6.48	5.91	5.78	5.74	5.80	3.51	3.89	8.34	5.81	7.80	7.23
Nov 00	6.51	6.35	6.34	6.15	6.65	6.49	5.88	5.70	5.72	5.78	3.49	3.84	8.28	5.76	7.75	7.22
Weekly																
Oct 13 00	6.46	6.21	6.27	5.99	6.68	6.47	5.90	5.79	5.76	5.82	3.55	3.94	8.37	5.83	7.84	7.23
Oct 20 00	6.50	6.29	6.28	5.96	6.66	6.47	5.85	5.70	5.68	5.77	3.45	3.87	8.33	5.79	7.83	7.25
Oct 27 00	6.51	6.36	6.35	6.05	6.65	6.47	5.88	5.73	5.66	5.72	3.44	3.83	8.29	5.75	7.68	7.22
Nov 3 00	6.55	6.37	6.37	6.17	6.66	6.50	5.92	5.82	5.76	5.80	3.44	3.84	8.31	5.73	7.73	7.12
Nov 10 00	6.49	6.40	6.38	6.20	6.65	6.47	5.97	5.82	5.85	5.88	3.46	3.88	8.35	5.79	7.79	7.23
Nov 17 00	6.52	6.36	6.35	6.16	6.64	6.49	5.89	5.69	5.73	5.79	3.46	3.85	8.26	5.76	7.73	7.25
Nov 24 00	6.52	6.36	6.34	6.17	6.65	6.50	5.86	5.63	5.65	5.71	3.53	3.83	8.27	5.76	7.73	7.28
Dec 1 00	6.52	6.26	6.25	6.03	6.63	6.51	5.71	5.52	5.56	5.66	3.57	3.81	8.19	5.74	7.65	7.24
Dec 8 00	6.53	6.11	6.07	5.79	6.54	6.52	5.49	5.33	5.39	5.57	3.57	3.79	8.10	5.68	7.54	7.21
Dec 15 00	--	6.07	6.04	5.77	6.49	6.53	5.49	5.27	5.31	5.50	3.56	3.78	--	5.59	7.42	7.05
Daily																
Nov 28 00	6.46	6.28	6.30	6.14	6.65	6.51	5.79	5.57	5.59	5.67	3.60	3.83	8.19	--	--	--
Nov 29 00	6.50	6.24	6.23	5.98	6.65	6.49	5.69	5.51	5.55	5.66	3.56	3.82	8.18	--	--	--
Nov 30 00	6.62	6.21	6.18	5.92	6.62	6.52	5.61	5.42	5.48	5.60	3.54	3.79	8.12	--	--	--
Dec 1 00	6.60	6.23	6.19	5.93	6.60	6.51	5.62	5.46	5.52	5.64	3.58	3.80	8.18	--	--	--
Dec 4 00	6.57	6.17	6.14	5.88	6.59	6.52	5.59	5.45	5.53	5.66	3.58	3.80	8.19	--	--	--
Dec 5 00	6.51	6.08	6.07	5.79	6.58	6.53	5.49	5.36	5.43	5.59	3.60	3.80	8.12	--	--	--
Dec 6 00	6.48	6.09	6.04	5.73	6.53	6.51	5.42	5.26	5.32	5.52	3.56	3.79	8.05	--	--	--
Dec 7 00	6.49	6.11	6.06	5.75	6.51	6.51	5.45	5.26	5.32	5.51	3.58	3.78	8.04	--	--	--
Dec 8 00	6.47	6.09	6.04	5.78	6.48	6.54	5.50	5.32	5.35	5.55	3.54	3.77	8.09	--	--	--
Dec 11 00	6.49	6.08	6.06	5.80	6.50	6.54	5.52	5.33	5.37	5.54	3.56	3.78	8.08	--	--	--
Dec 12 00	6.43	6.06	6.06	5.80	6.50	6.50	5.54	5.33	5.36	5.53	3.56	3.78	8.08	--	--	--
Dec 13 00	6.47	6.06	6.03	5.76	6.50	6.54	5.45	5.24	5.29	5.48	3.56	3.78	8.03	--	--	--
Dec 14 00	6.53 <sup>p</sup>	6.06	6.01	5.71	6.47	--	5.43	5.19	5.23	5.45	3.56	3.77	--	--	--	--

NOTE Weekly data for columns 1 through 13 are week-ending averages. Columns 2 through 4 are on a coupon equivalent basis. Data in column 6 are interpolated from data on certain commercial paper trades settled by the Depository Trust Company. 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

MFMA JWR

## Money and Debt Aggregates

December 18, 2000

Seasonally adjusted

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>								
Annually (Q4 to Q4)								
1997	-1.2	5.6	8.3	20.1	8.9	0.8	7.0	5.4
1998	2.2	8.4	10.7	18.4	10.9	-1.1	9.6	6.9
1999	1.8	6.2	7.7	11.8	7.7	-2.5	9.6	6.8
<b>Quarterly(average)</b>								
1999-Q4	4.8	5.2	5.4	25.0	10.5	-4.4	9.2	6.3
2000-Q1	0.0	6.3	8.3	24.3	11.3	-4.8	8.4	5.6
Q2	-1.0	6.5	8.8	13.2	8.6	-7.5	9.7	6.2
Q3	-2.7	4.7	7.0	17.1	8.3	-7.2	7.6	4.7
<b>Monthly</b>								
1999-Nov.	8.9	5.2	4.1	42.5	15.4	-8.1	8.3	4.8
Dec.	14.5	7.6	5.4	45.2	18.0	0.4	9.0	7.2
2000-Jan.	-4.4	6.5	10.0	14.8	8.9	-4.8	7.9	5.2
Feb.	-15.4	3.4	9.3	6.4	4.3	-12.4	8.2	3.9
Mar.	6.4	9.8	10.8	26.1	14.4	2.8	8.8	7.5
Apr.	5.1	10.7	12.5	6.1	9.4	-5.4	9.9	6.8
May	-9.9	-0.3	2.6	14.7	4.0	-18.1	11.1	5.2
June	-1.3	3.9	5.5	17.1	7.8	-8.4	8.9	5.4
July	0.2	3.6	4.6	21.4	8.8	-3.7	6.3	4.3
Aug.	-3.7	7.6	11.0	15.3	9.9	-7.3	6.7	4.0
Sep.	-5.2	9.0	13.2	8.2	8.8	-4.8	7.4	5.0
Oct.	4.5	4.5	4.6	2.6	4.0	-10.0	5.7	2.7
Nov. p	-11.0	2.7	6.6	4.4	3.2			
<b>Levels (\$billions):</b>								
<b>Monthly</b>								
2000-July	1104.9	4790.9	3686.0	2016.3	6807.2	3510.2	14429.7	17939.9
Aug.	1101.5	4821.3	3719.8	2042.0	6863.3	3488.9	14510.2	17999.1
Sep.	1096.7	4857.5	3760.8	2055.9	6913.4	3475.0	14599.5	18074.5
Oct.	1100.8	4875.8	3775.1	2060.3	6936.2	3445.9	14669.2	18115.0
Nov. p	1090.7	4886.8	3796.0	2067.8	6954.6			
<b>Weekly</b>								
2000-Nov. 6	1088.1	4881.2	3793.1	2069.4	6950.6			
13	1076.6	4875.8	3799.3	2074.8	6950.6			
20	1092.2	4883.5	3791.2	2063.2	6946.7			
27p	1103.8	4897.4	3793.6	2062.5	6959.9			
Dec. 4p	1089.5	4905.2	3815.7	2072.9	6978.1			

<sup>1</sup> 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

Changes in System Holdings of Securities <sup>1</sup>  
(Millions of dollars, not seasonally adjusted)

Strictly Confidential  
Class II FOMC

December 14, 2000

	Treasury Bills			Treasury Coupons						Federal Agency Redemptions (-)	Net change total outright holdings <sup>4</sup>	Net RPs <sup>5</sup>		
	Net Purchases <sup>2</sup>	Redemptions (-)	Net Change	Net Purchases <sup>3</sup>				Redemptions (-)	Net Change			Short-Term <sup>6</sup>	Long-Term <sup>7</sup>	Net Change
				< 1	1-5	5-10	Over 10							
1997	9,147	---	9,147	5,549	20,080	3,449	5,897	1,996	32,979	1,540	40,586	2,496	---	2,496
1998	3,550	2,000	1,550	6,297	12,901	2,294	4,884	2,676	23,699	322	24,902	-7,242	463	-6,779
1999	---	---	---	11,895	19,731	4,303	9,428	1,429	43,928	157	43,771	2,035	8,347	10,382
1999 QIII	---	---	---	2,341	1,272	447	1,075	41	5,094	21	5,073	-34	1,487	1,453
QIV	---	---	---	2,414	4,528	581	2,182	170	9,535	57	9,478	553	29,921	30,474
2000 QI	---	198	-198	---	900	1,298	1,399	390	3,207	31	2,978	-1,886	-8,174	-10,060
QII	2,294	7,263	-4,969	2,039	3,319	930	1,679	568	7,398	10	2,419	104	-9,709	-9,605
QIII	2,587	12,238	-9,651	4,770	7,152	2,362	1,774	1,254	14,803	10	5,142	-1,911	-2,025	-3,937
2000 Apr	2,294	779	1,515	---	1,723	930	---	568	2,085	10	3,590	1,175	46	1,221
May	---	2,297	-2,297	164	890	---	528	---	1,582	---	-715	1,519	-4,445	-2,926
Jun	---	4,188	-4,188	1,875	706	---	1,151	---	3,732	---	-456	-3,827	3,013	-814
Jul	1,825	4,902	-3,077	1,284	2,259	---	500	367	3,676	---	599	-250	389	139
Aug	531	3,438	-2,907	2,770	2,508	1,914	727	887	7,032	---	4,125	-663	-4,380	-5,043
Sep	231	3,898	-3,667	716	2,385	448	547	---	4,095	10	418	2,583	-198	2,386
Oct	779	2,656	-1,877	---	734	---	982	787	929	---	-948	-1,323	64	-1,259
Nov	2,507	1,021	1,485	580	1,332	510	---	780	1,642	---	3,127	1,371	5,068	6,440
2000 Sep 20	39	3,709	-3,670	716	837	448	48	---	2,049	---	-1,622	5,102	-26	5,076
Sep 27	109	---	109	---	650	---	---	---	650	---	759	-4,713	31	-4,683
Oct 4	228	189	39	---	---	---	---	---	---	---	39	2,842	1	2,842
Oct 11	183	---	183	---	---	---	---	---	---	---	183	-3,067	11	-3,055
Oct 18	40	2,656	-2,616	---	---	---	500	---	500	---	-2,116	2,768	62	2,830
Oct 25	204	---	204	---	734	---	---	---	734	---	938	-2,080	29	-2,052
Nov 1	184	---	184	---	---	---	482	787	-305	---	-122	3,562	---	3,562
Nov 8	2,181	---	2,181	---	695	---	---	---	695	---	2,877	-3,419	1,986	-1,433
Nov 15	51	1,021	-971	---	---	---	---	---	---	---	-971	1,690	1,432	3,122
Nov 22	75	---	75	580	637	---	---	---	1,217	---	1,292	-525	2,864	2,339
Nov 29	138	---	138	---	---	510	---	---	510	---	648	2,707	2,151	4,859
Dec 6	97	---	97	---	---	---	---	780	-780	---	-683	2,887	2,020	4,907
Dec 13	106	1,145	-1,039	1,420	---	771	---	---	2,191	---	1,151	-759	566	-193
2000 Dec 14	101	---	101	---	---	---	---	---	---	---	101	-7,292	5	-7,287
Intermeeting Period														
Nov 15-Dec 14	517	1,145	-628	2,000	637	1,281	---	780	3,137	---	2,509	1,737	7,020	8,757
Memo: LEVEL (bil \$)														
Dec 14			199.6	73.8	131.7	55.5	70.9		331.9	0.1	531.6	-10.1	21.0	10.9

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

2 Outright purchases less outright sales (in market and with foreign accounts)

3 Outright purchases less outright sales (in market and with foreign accounts). Includes short-term notes acquired in exchange for maturing bills. Excludes maturity shifts and rollovers of maturing issues

4 Includes redemptions (-) of Treasury and agency securities

5 RPs outstanding less matched sale-purchases

6 Original maturity of 15 days or less

7 Original maturity of 16 to 90 days