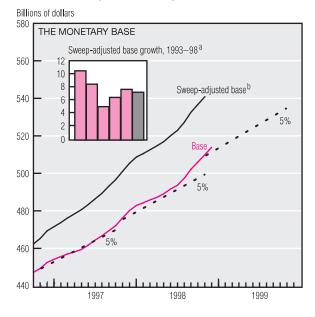
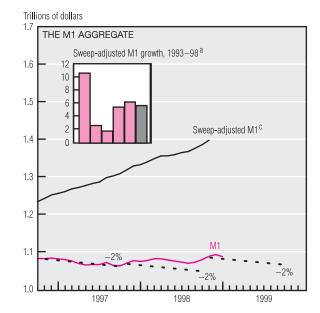
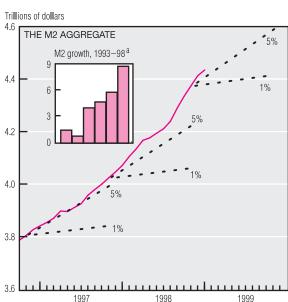
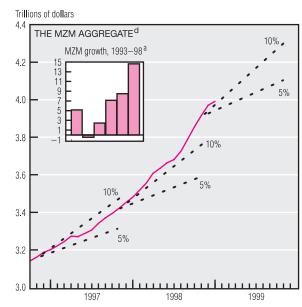
## Monetary Policy









- a. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. 1998 growth rates for sweep-adjusted base and M1 calculated on a November over 1997:IVQ basis.
- b. The sweep-adjusted base includes an estimate of required reserves saved when balances are temporarily shifted from reservable to nonreservable accounts.
- c. Sweep-adjusted M1 includes an estimate of balances temporarily shifted from M1 to non-M1 accounts.
- d. MZM is an alternative measure of money that is equal to M2 plus institutional money market mutual funds less small time deposits.

NOTE: Data are monthly and seasonally adjusted. Last plots for M1, M2, and MZM are estimated for January 1999. Dotted lines for M2 are FOMC-determined provisional ranges. All other dotted lines represent growth in levels and are for reference only. SOURCE: Board of Governors of the Federal Reserve System.

The rate of money growth is a matter of concern because, as Milton Friedman aptly stated, "inflation is always and everywhere a monetary phenomenon." Sweep-adjusted M1 growth appears to have slowed slightly last year (5.6% through November 1998, compared to 6.1% in 1997). Yet, compared to GDP growth, even this lower level is problematic. Although data on sweep-adjusted M1 growth since November are not yet available, non-sweep-adjusted M1 fell 6.2%

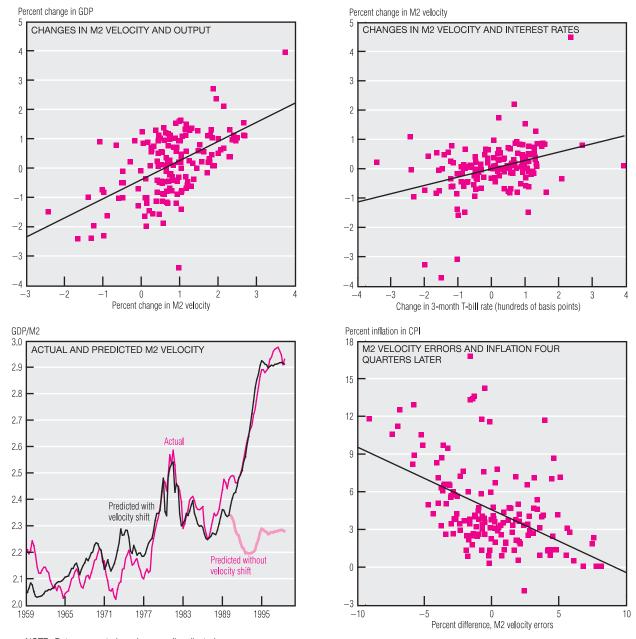
from November to December, much slower than its 1.6% average increase in 1998. Unless sweep activity spurted in December, sweep-adjusted M1 also is likely to show sharply slower growth. The broader monetary aggregates, however, showed significantly higher growth levels in 1998 than did these narrower aggregates.

For example, two such aggregates, M2 and MZM, registered faster growth than either base or M1 in 1998. What is more alarming is that

they accelerated sharply from their 1997 growth rates. M2 increased 8.7% last year, far outdistancing its 1997 growth of 5.7% and exceeding any growth seen since 1995. MZM's growth rate for 1998 was even more robust (14.3%), substantially higher than its 8.2% growth in 1997. Compared to the GDP's nominal growth in 1998 (4.9%), rapid growth in these aggregates raises fears that the economy is poised for an increase in inflation.

(continued on next page)

## Monetary Policy (cont.)



NOTE: Data are quarterly and seasonally adjusted.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census; and Board of Governors of the Federal Reserve System.

In stating that inflation is always and everywhere a monetary phenomenon, Milton Friedman professed a long-held belief that the cause of inflation is too much money chasing too few goods. This theory has merit in the long run because velocity remains fairly constant (an exception being a one-time shift in velocity that occurred in the early 1990s). Over the short term, however, inflation may deviate substantially from this prediction.

Increases in both output and nominal interest rates are associated with velocity—and thus prices—over the short run. Yet basing

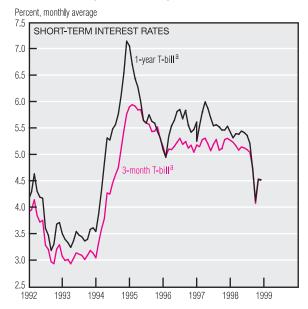
velocity predictions on movements in output and interest rates is tricky. At the end of 1997, for example, actual velocity was more than 2% higher than would have been predicted from output and interest rates alone. If these money-demand or velocity errors were largely selfcorrecting, actual velocity would tend to return to its predicted level. This would mean that today's velocity errors could help predict inflation four quarters from now. The 2% difference between actual and predicted velocity levels at the end of 1997 implies that inflation was about 1% lower than it otherwise would

have been at the end of 1998. Given that actual and predicted velocity levels have now converged, this suggests that inflation may tick up about 1% over 1999.

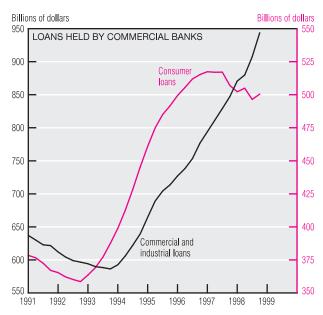
Short-term interest rates rose sharply at year's end. The weekly average 1-year and 3-month T-bill rates exceeded 4.5% in the weeks ending December 25, 1998 and January 1, 1999. These changes represent increases of 35 and 52 basis points from the final week of October for the 3-month and 1-year T-bills, respectively. To a lesser degree, longer-term interest rates also

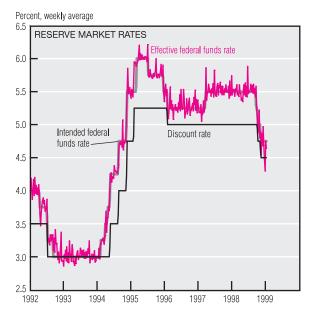
(continued on next page)

## Monetary Policy (cont.)









- a. Constant maturity.
- b. Bond Buyer Index, general obligation, 20 years to maturity, mixed quality. SOURCE: Board of Governors of the Federal Reserve System.

increased over the same period. State and local bonds with a 20-year maturity and the 30-year Treasury both increased roughly 10 basis points in December 1998. Conventional mortgage rates held fairly stable at a low level.

Recent interest rate movements could reflect weakness in consumer loans, which shrank almost 0.5% in 1998. Commercial and industrial loans, however, were far more robust, having grown slightly more than 8.25% in 1998. As Chairman Greenspan observed in his State of the Economy testimony before the House Ways and Means Committee

on January 20, 1999, "there is decided softness in a number of manufacturing industries," which he attributed to foreign developments. He concluded by saying that, "with corporations already relying increasingly on borrowing to finance capital investment, any evidence of a marked slowing in corporate cash flow is likely to induce a relatively prompt review of capital budgets."

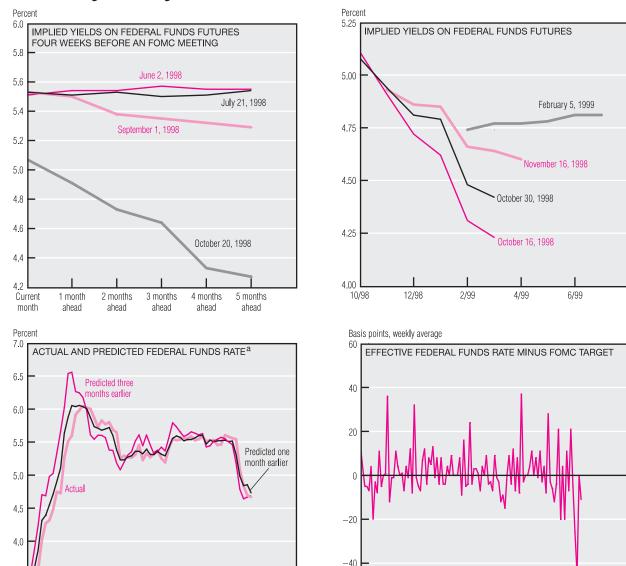
The Federal Open Market Committee (FOMC) did not change either the discount rate (4.5%) or the target funds rate (4.75%) at its February meeting. In the near term,

market participants seem to anticipate no movement in the federal funds rate target. In early February, they predicted that the June 1999 funds rate would be 4.81%, which is nearly identical to its current level.

A look at implied yields on federal funds futures four weeks prior to FOMC meetings shows that market participants did not foresee the policy easing that occurred at the FOMC's September 29 meeting. Until then, the market had expected the funds rate to remain fairly constant. Just after the largely unforeseen intermeeting policy easing

(continued on next page)

## Monetary Policy (cont.)



a. Predicted rates are federal funds futures.
 SOURCES: Board of Governors of the Federal Reserve System; and the Chicago Board of Trade.

1998

1999

of October 16, the market began to anticipate future rate cuts, looking for a further funds rate reduction of more than 75 basis points by March. Subsequently, expectations of further target rate cuts decreased steadily, and by November 16 the market was anticipating the rate cut of 25 basis points that transpired the next day with little indication of any future easing. Since then, the market has anticipated that the funds rate would continue trading near its current 4.75% target.

3.5

3.0

1994

1995

1996

1997

The fed funds futures market is not a perfect tool for predicting the precise timing of policy changes. It is, however, a reasonable indicator of the average future federal funds rate. A plot showing predictions with one- and three-month lead times, along with the actual federal funds rate, shows that when the rate is rising (that is, when policy is tightening), predictions tend to err on the high side. The opposite occurs when the rate is falling. Overall, the futures series follow the actual funds rate reasonably well.

-60

The federal funds rate chosen by the FOMC is a target rate. Reserves are added to or drained from the system on a daily (Monday through Friday) basis in order to achieve this

target. Misses from the target rate generally tend to be quite small, averaging one-tenth of a percentage point in 1998. The miss in the last week of 1998 was unusually large (45 basis points) but it was shortlived, since the rate hit the target straight on just one week later. That big December miss was probably the product of many factors, including recent longer-term repurchase operations by the trading desk, doubts associated with the introduction of the euro, and the notorious seasonal uncertainty that occurs at the end of every year.

1999

1998