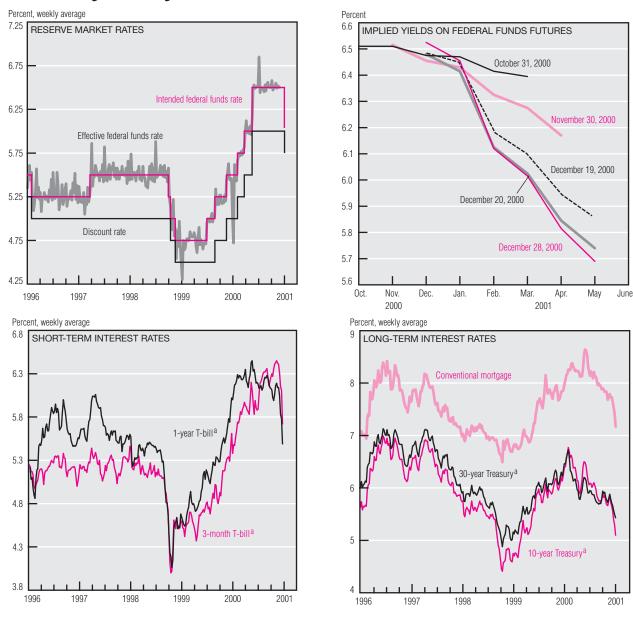
## Monetary Policy



a. Constant maturity.
SOURCES: Board of Governors of the Federal Reserve System; and Chicago Board of Trade.

The Federal Open Market Committee (FOMC) maintained the intended federal funds rate at 6.5% on December 19, its final regular meeting of 2000. However, as this issue was going to press, the FOMC cut the intended rate 50 basis points (bp) to 6.0% in an intermeeting move on January 3, 2001. In a related action, the Board of Governors approved a 25 bp decrease in the discount rate. The FOMC maintained its stance, adopted in December, that the balance of risks facing the U.S. economy is

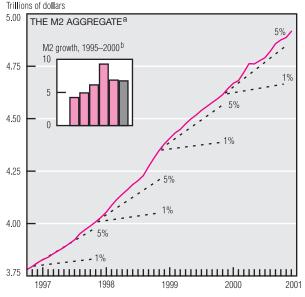
"weighted mainly toward conditions that may generate economic weakness in the foreseeable future."

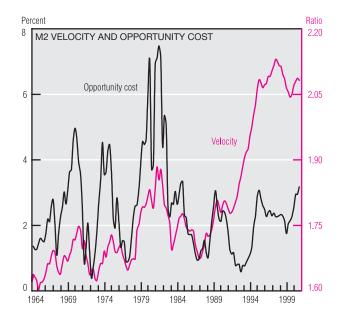
Federal funds futures markets began to build in the possibility of future rate cuts in September, causing the implied yield curves to slope downward. This slope has steepened remarkably in recent weeks, vividly illustrating market participants' heightened expectations that policymakers would lower the intended federal funds rate. On December 28, the May contract was trading 71 bp below the current target rate and

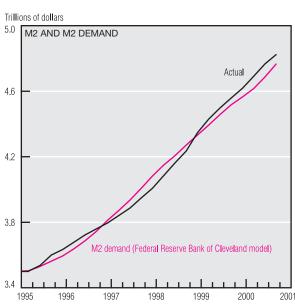
17 bp lower than on the day before the FOMC meeting.

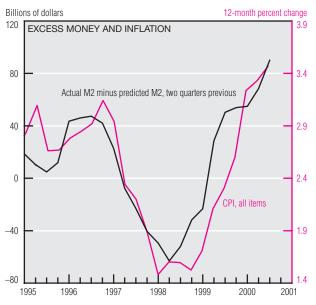
Yields on government securities also fell sharply over the last month. For the week ending December 22, yields on 3-month and 1-year T-bills fell around 69 bp and 65 bp (to 5.67% and 5.44%, respectively) from a month earlier. Despite this decline, the spread between 3-month and 1-year T-bills held fairly stable, and yields remained inverted. Long-term interest rates also declined significantly (55 bp on the 10-year Treasury

## Monetary Policy (cont.)









- a. Last plot for M2 is estimated for December 2000. Dotted lines for M2 are FOMC-determined provisional ranges.
- b. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. The 2000 growth rate for M2 is calculated on an estimated December over 1999:IVQ basis. Data are seasonally adjusted.

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

bond and 28 bp on the 30-year Treasury bond) through December 22.

Can policymakers extract any relevant information from the monetary aggregates? Before the early 1990s, changes in M2 velocity (the ratio of nominal GDP to M2) were closely related to M2 opportunity cost (the difference between the rate of return on M2-denominated assets and a riskless alternative asset). This provided a basis for judging what money target or interest rates would be consistent with noninflationary economic growth. The relationship between M2 velocity and opportunity

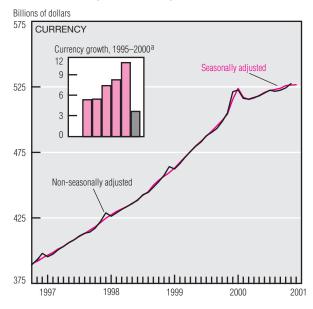
cost broke down in the early 1990s, and standard models of money demand became less reliable.

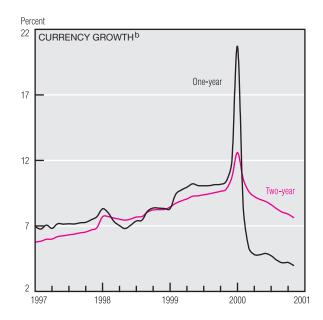
Since 1993, the historical link between velocity and opportunity cost seems to have reasserted itself. Indeed, when the money demand relationship is adjusted to account for the early 1990s, the model tracks actual money about as well as before the change. More intriguing, statistical evidence suggests that when actual M2 exceeds (falls short of) predicted M2, inflation rises (falls).

Some might point to the much slower growth rates in the narrow

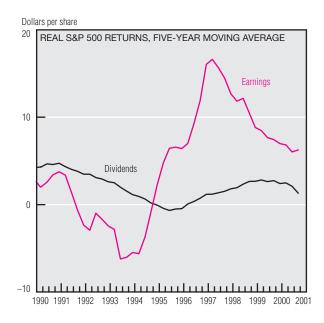
monetary aggregates, particularly currency and the monetary base, as a sign that policy has been too contractionary, but this would be somewhat misleading. Currency, which accounts for about 90% of the monetary base, is supplied according to demand, making it less useful as a policy indicator. In addition, year-to-date growth rates are calculated relative to elevated pre-Y2K levels, which clearly were expected to decline once the event had passed without incident. Finally, seasonal adjustment (the process of removing regular fluctuations associated with recurring

## Monetary Policy (cont.)









a. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. The 2000 growth rate for currency is calculated on an estimated December over 1999:IVQ basis. Data are seasonally adjusted.

b. One-year annualized year-to-date growth rates are calculated from the fourth quarter of the previous year through the given month. Two-year annualized year-to-date growth rates are calculated from the fourth quarter two years previous.

SOURCES: Board of Governors of the Federal Reserve System; Standard and Poors Corporation; and Wall Street Journal.

events such as holidays) is particularly difficult after a one-time event of this magnitude. Annualized year-to-date growth over a two-year horizon arguably provides a less biased picture of currency growth.

The stock market provided plenty of thrills and chills in 2000, rising sharply in the winter and staying relatively high through much of the summer, then falling precipitously for the rest of the year. Broad indexes like the S&P 500 and the Wilshire 5000 ended the year down about 10% and 12%, respectively. Much of

the excitement focused on the technology sector, which dominates the NASDAQ stock index. By year's end, the NASDAQ had fallen to around half its March peak.

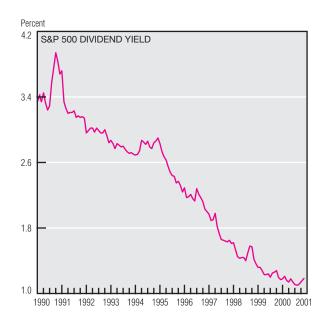
Despite the recent drop, stock prices are still four times higher than in 1990. And in retrospect, this year's experience is not so surprising. The economy seems to be in transition from a high—some say unsustainable—growth rate of near 5% to a trend growth rate that is lower than the recent pace but higher than the trend rate experienced in 1973–95.

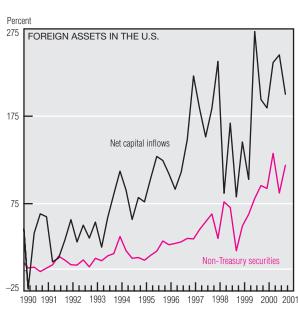
A transition was expected, but its timing and the magnitude of the slowdown remain highly uncertain. Such details become known only in retrospect and only then have clear implications for near-term earnings growth and stock prices.

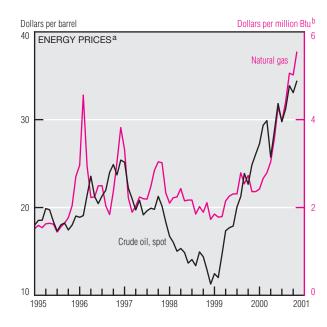
The decade-long rise in broad stock indexes like the S&P 500 was largely supported by fundamental factors such as earnings growth, which showed persistently high rates over much of the past 10 years. Moreover, the index's price/earnings ratio (P/E) reached a peak of about (continued on next page)

## Monetary Policy (cont.)









- a. Oil prices are West Texas intermediate. Natural gas prices are from Henry Hub.
- b. British thermal units.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; Standard and Poors Corporation; and Wall Street Journal.

33 in 1999, with the 18 largest tech stocks hitting a P/E peak above 125. The P/E implicitly measures the prospect for future earnings growth. When it is high, investors are willing to pay high prices because they expect that earnings will grow faster than historical trends so that the P/E will fall to some norm—now thought to be somewhere between 15 and 25.

Analysts' estimates of individual firms' earnings growth prospects have confirmed this view. Recently, however, near-term earnings projections have been revised downward because of evidence that the anticipated transition is under way. Nevertheless, earnings projections over three to five years still exceed historical trends and so remain broadly consistent with the current P/E.

High U.S. stock prices in the late 1990s also reflected their attractiveness relative to assets abroad. Foreign holdings of U.S. securities jumped in 1998 after the Russian default, when global investors sought a safe haven. The dollar's recent weakness relative to the euro raises

concerns that foreign investors may now seek better prospects outside the U.S. And although oil prices receded substantially in December (not shown), the price of natural gas accelerated late in 2000 when temperatures in North America dropped well below normal. Earnings growth prospects for some sectors could thus be depressed further as households cut discretionary expenditures to pay their heating bills. Transition, a reality of a market economy, is rarely an unmixed blessing.