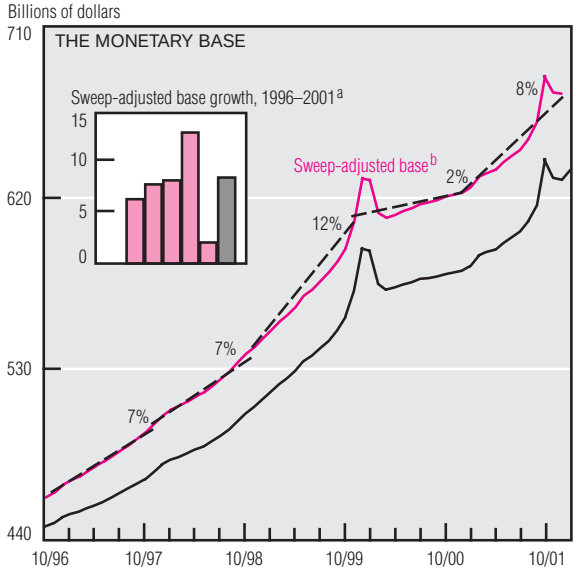
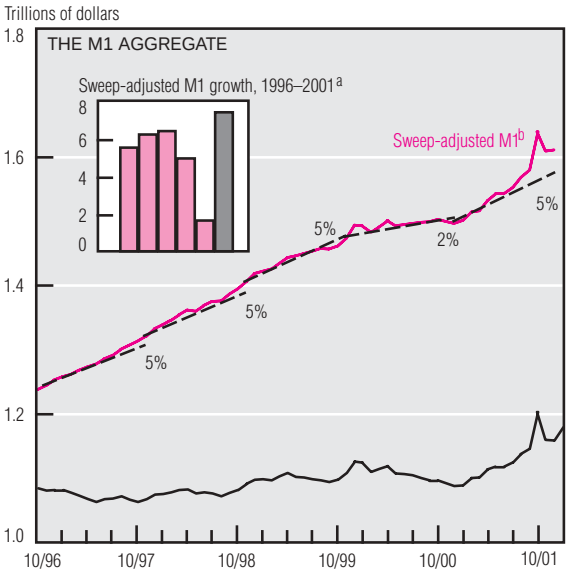
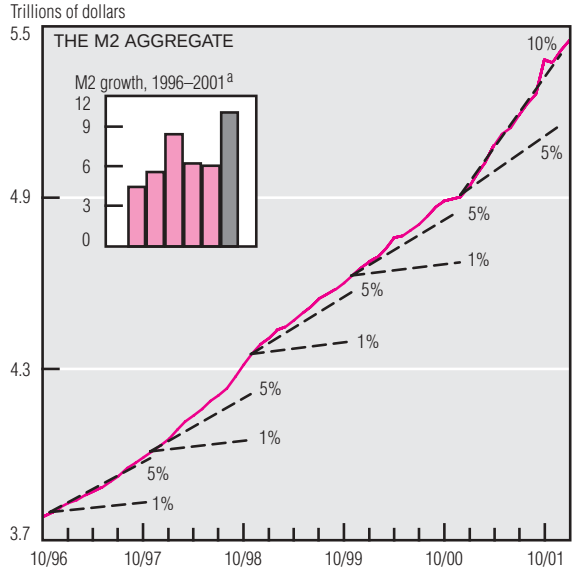
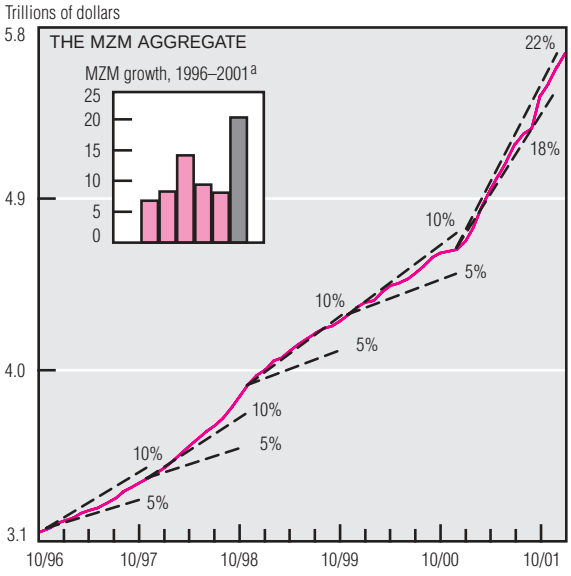
Money and Financial Markets









NOTE: Last plots for the monetary base, M1, M2, and MZM are December 2001. Last plots for the sweep-adjusted base and sweep-adjusted M1 are November 2001. Prior to November 2000, dotted lines for M2 are FOMC-determined provisional ranges. All subsequent dotted lines represent growth in levels and are for reference only.

a. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. Data are seasonally adjusted.

b. Sweep-adjusted M1 contains an estimate of balances temporarily moved from M1 to non-M1 accounts. The sweep-adjusted base contains an estimate of required reserves saved when balances are shifted from reservable to nonreservable accounts.

SOURCES: Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Releases,* "Money Stock and Debt Measures," H.6, and "Aggregate Reserves of Depository Institutions," H.3.

In 2001, the monetary aggregates grew rapidly across the entire spectrum of liquidity. A number of factors combined to produce this surge in growth rates. Because 2001 calendar-year data are available for most of the aggregates, one can summarize their behavior and the driving forces behind their growth.

Narrowly defined, more liquid monetary aggregates, such as the sweep-adjusted monetary base and sweep-adjusted M1, grew robustly in 2001, showing increases of 8.4% and 7.3%, respectively. Year-over-year growth, already quite strong for most of 2001, rose sharply during the fourth quarter as the Federal Reserve moved to provide needed liquidity in the wake of the terrorist attacks.

However, annual growth rates are somewhat misleading because of unprecedented volatility in the narrow measures of money during the fourth quarter of recent years. Late in 1999, concerns about the century date change motivated an expansion of reserves which, when proven unnecessary, were drained out of the system during 2000. The abnormally elevated level of the narrow monetary aggregates during 1999:IVQ relative to 1998:IVQ showed up as a sharp increase in the growth rate one year and a decline the next. A similar scenario followed the events of September 11. But if viewed over a two-year horizon, annualized sweep-adjusted M1 growth rose modestly

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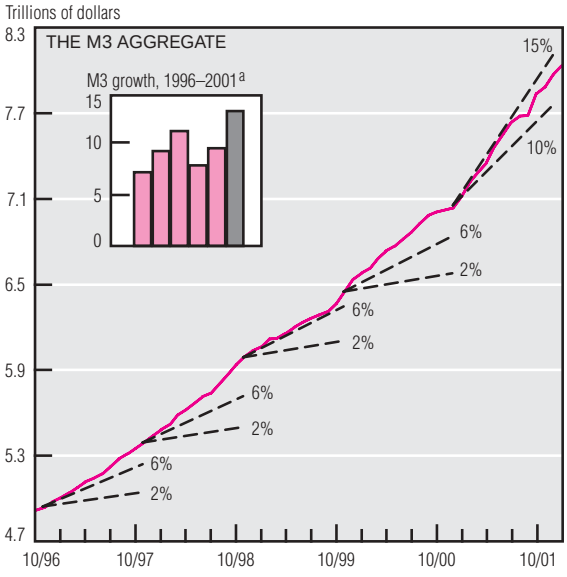
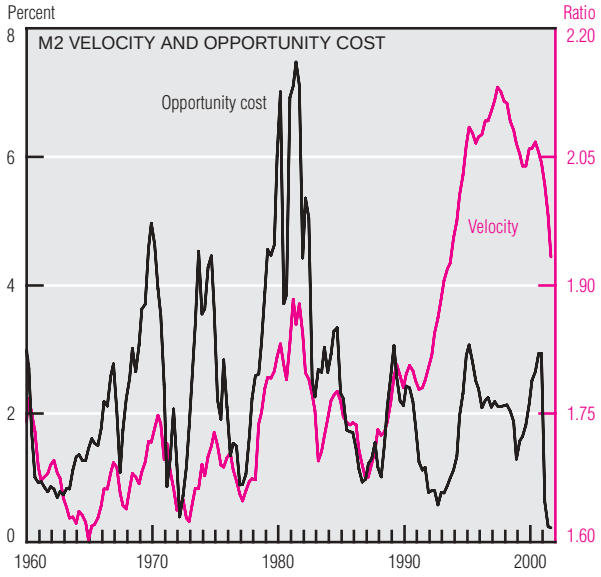
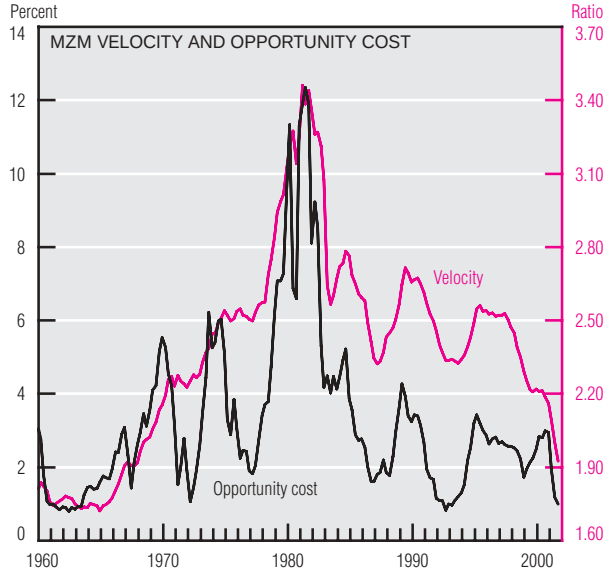
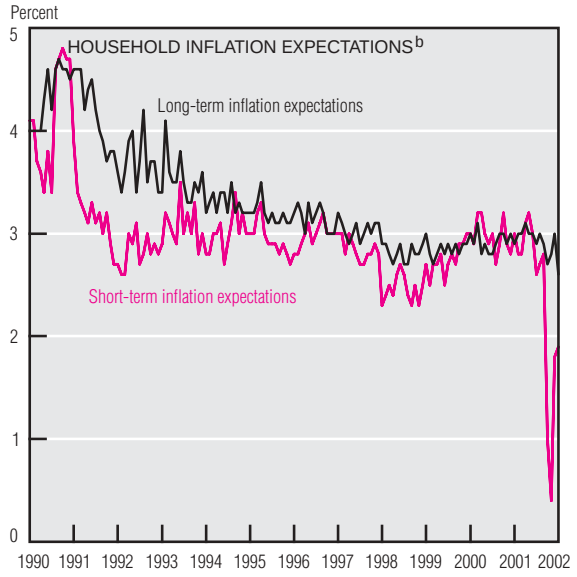
Money and Financial Markets *(cont.)*









NOTE: Last plot for M3 is December 2001. Prior to November 2000, dotted lines for M3 are FOMC-determined provisional ranges. All subsequent dotted lines represent growth in levels and are for reference only.

a. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. Data are seasonally adjusted.

b. Median expected change in consumer prices one and 5–10 years ahead, as measured by the University of Michigan's *Survey of Consumers*.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System, *Federal Reserve Statistical Releases*, "Money Stock and Debt Measures," H.6; and University of Michigan.

between 1999:IVQ and 2001:IVQ, and annualized sweep-adjusted base growth actually fell relative to 2000.

The broader (less liquid) monetary aggregates such as M2, M3, and MZM are, by their very nature, more insulated from the types of shocks that cause the narrow monetary aggregates to expand or contract. Often, these forces simply wash out in the broad monetary aggregates. Nonetheless, 2001 growth in the broad monetary aggregates was, if anything, even stronger than in the narrower ones. In 2001:IVQ, growth from four quarters previous in M2, M3, and MZM reached 10.3%, 12.9%, and 20.4%, respectively.

Despite this growth in the broad monetary aggregates, inflation and inflation expectations have remained subdued. This is because velocity, which measures the rate at which dollar balances turn over during a given period, has been declining for both M2 and MZM. Opportunity cost measures earnings lost by holding the components of an aggregate instead of an alternative asset such as a U.S. Treasury security. Thus, swings in the opportunity cost of money often coincide with changes in its velocity. Essentially, dollars turn over more slowly when opportunity costs fall because they are less costly to hold. This enables money to grow faster without igniting inflation. Thus far, the good news is that despite elevated money growth, inflation expectations have not risen.