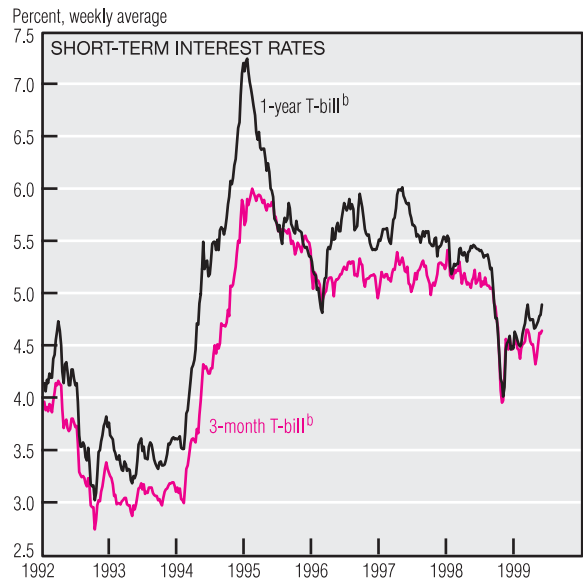
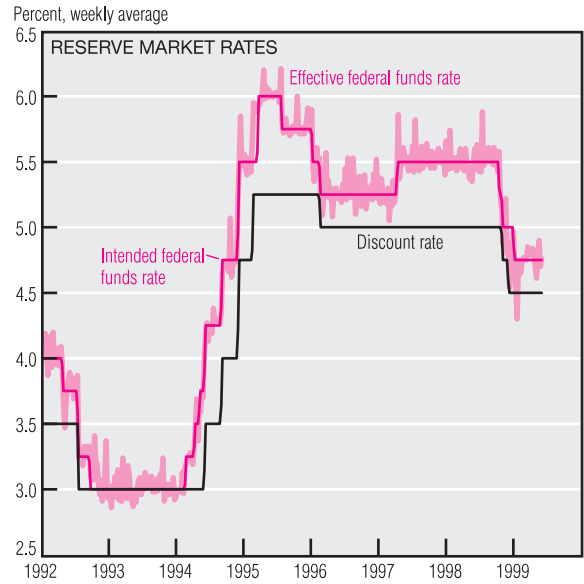
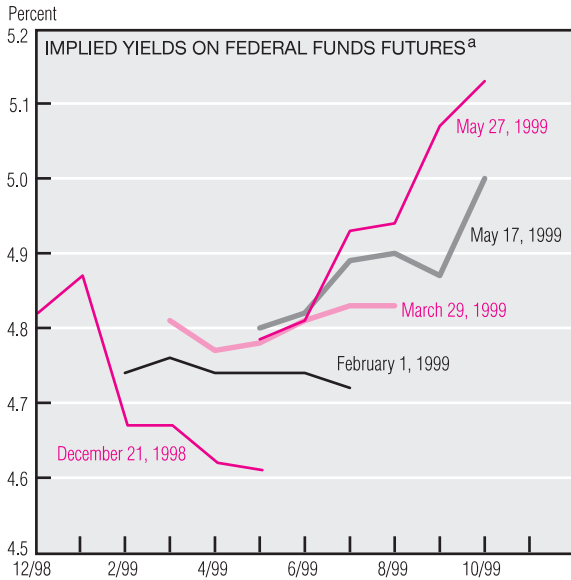


# Monetary Policy



a. All dates except May 27, 1999 are one day prior to FOMC meetings.

b. Constant maturity.

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

At its May 18 meeting, the Federal Open Market Committee (FOMC) opted to leave the federal funds rate target unchanged at 4.75%. The discount rate (which the Federal Reserve charges on overnight loans to banks) was also left unchanged at 4.5%. At the meeting, however, the FOMC “adopted a directive that is tilted toward the possibility of a firming in the stance of monetary policy,” fueling expectations that it may raise rates in the near future.

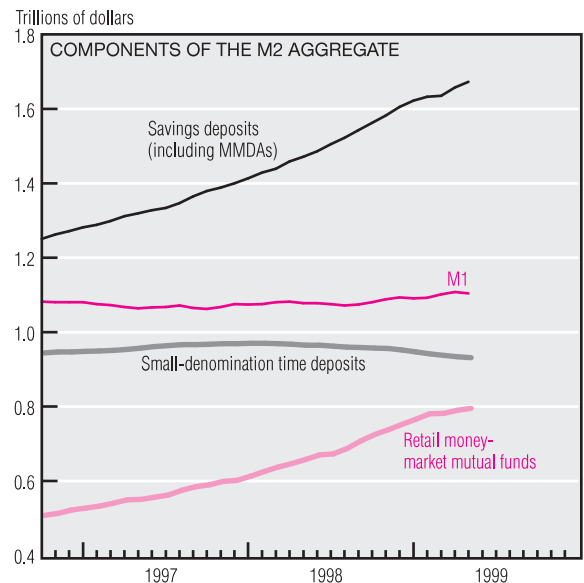
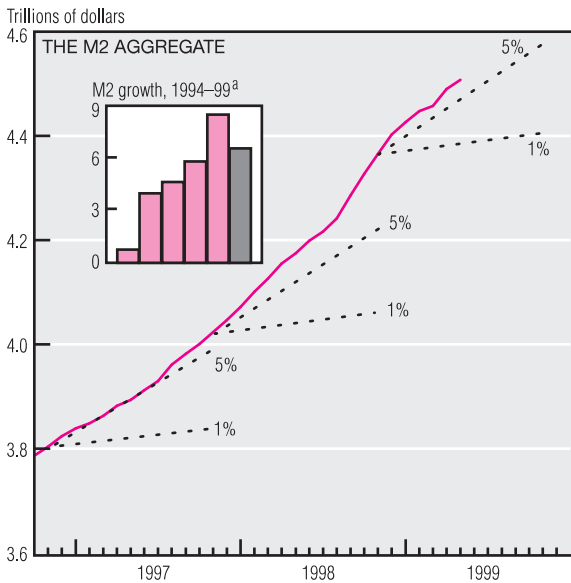
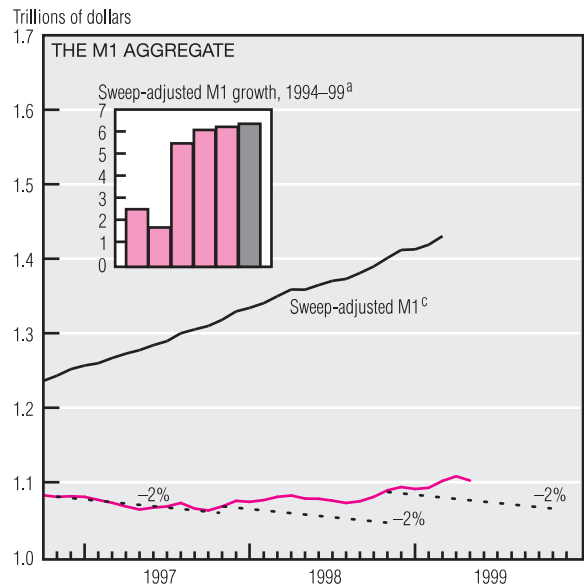
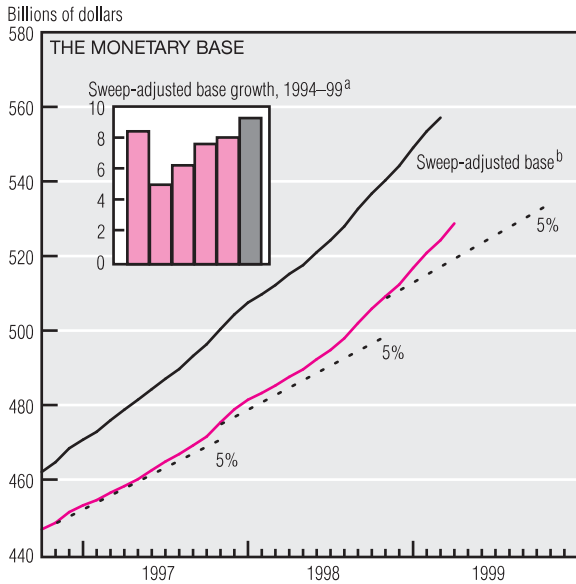
This announcement came on the heels of the largest uptick in CPI inflation to occur in more than eight years. Clearly, the average participant in the market for federal funds futures expects the target rate to increase in the coming months. The implied yields on fed funds futures the day before the May FOMC meeting indicate that it was the only one of the last four meetings when the market foresaw a significant possibility of a rate target increase. Since

the meeting, implied yields have climbed slightly, a sign of market expectations that the target may go to 5.0% or higher by early fall.

Long-term interest rates have drifted upward in recent weeks. From the week ending April 30 to the one ending May 21, the average of conventional mortgage rates increased 30 basis points. In the same period, the weekly averages of the constant maturity measures for

*(continued on next page)*

# Monetary Policy (cont.)



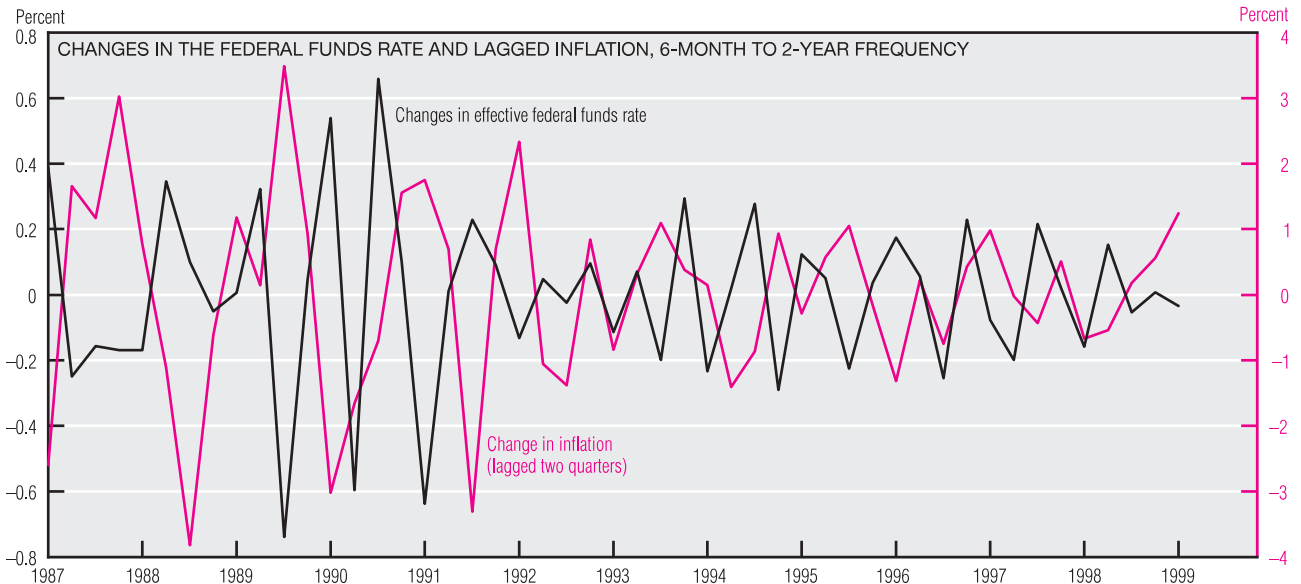
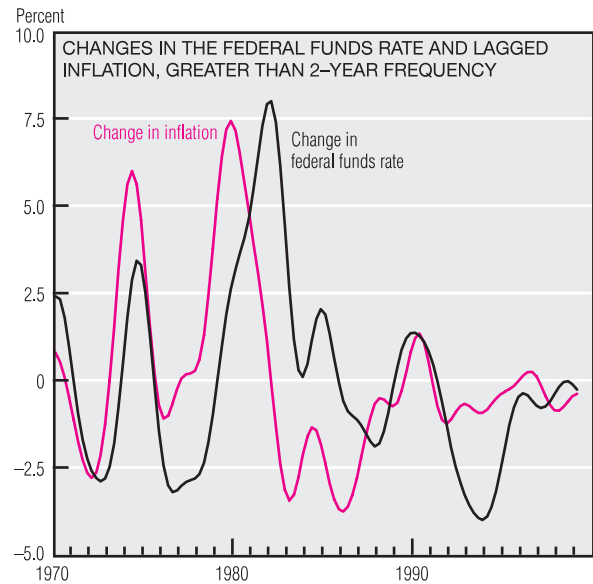
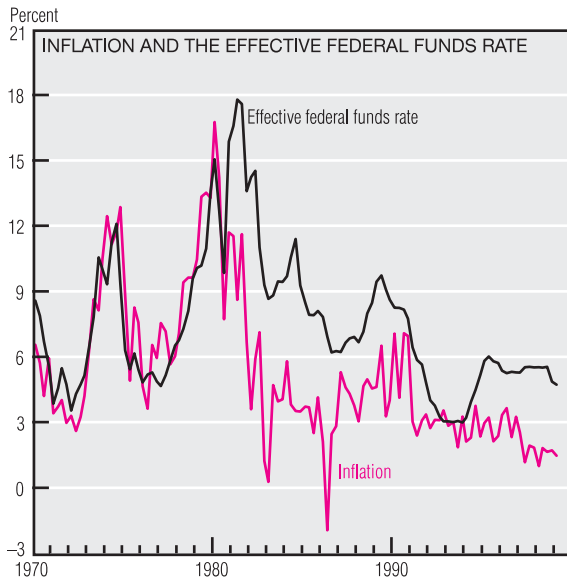
a. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. The 1999 growth rates for adjusted M1 and the base are calculated on a March over 1998:IVQ basis. The 1999 growth rate for M2 is calculated on an estimated May over 1998:IVQ basis.  
 b. The sweep-adjusted 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.  
 NOTE: Data are seasonally adjusted. Last plots for M1 and M2 are estimated for May 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.

10- and 30-year Treasuries increased 35 and 27 basis points, respectively. Recent short-term rates have followed similar patterns, but these patterns are less distinct for the constant-maturity measures of both the 3-month and 1-year T-bills. The weekly averages for these two short-term interest rates have increased only 13 and 16 basis points from the week ending April 30 to the one ending May 21. Annualized growth of the sweep-

adjusted base through March of this year has outpaced its 1998 growth by more than 1%. Although it is dangerous to rely on nonadjusted base data, it is noteworthy that this year's base growth has remained quite rapid, being well above 5% and indeed near 1998's 7% growth rate. Similarly, sweepadjusted M1 growth thus far in 1999 is on a par with last year's rate. The annualized M2 growth of 6.5% through May has slowed since

1998, when the rate averaged nearly 8.5%, but is still outside the 1% to 5% provisional range set by the FOMC. The components that have contributed to M2's recent, relatively rapid growth are retail money-market mutual funds and savings deposits. The increase in retail money funds is not surprising, given the rise in household holdings of mutual funds of all types. The increase in savings deposits, however, may have *(continued on next page)*

## Monetary Policy (cont.)



NOTE: Changes in the effective federal funds rate and inflation are the differences between quarterly average rates. Inflation is the annualized change in quarterly average CPI—all items. Data are filtered using a band-pass filter.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System; and Lawrence Christiano and Terry Fitzgerald, "The Band-Pass Filter," February 1999 (unpublished).

more to do with sweep accounts than with greater savings by households. Sweep accounts move funds from checkable deposits—which have reserve requirements—to money market deposit accounts offered by banks—which have none. The increase in sweep accounts from March 1998 to March 1999 contributed more than four percentage points to the 13.6% growth in savings deposits in that period.

It is generally accepted that lowering inflation requires raising the federal funds rate. But how can this

be, given that the correlation between the two is clearly positive?

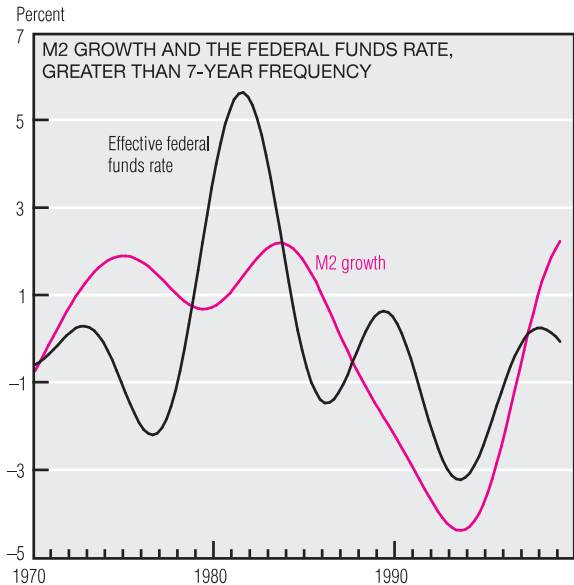
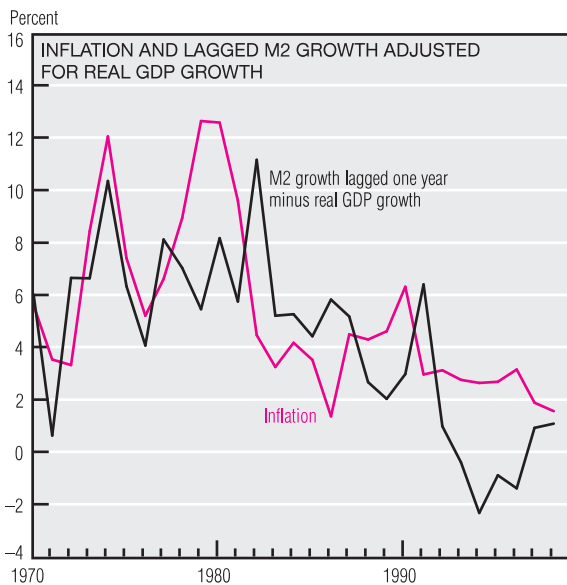
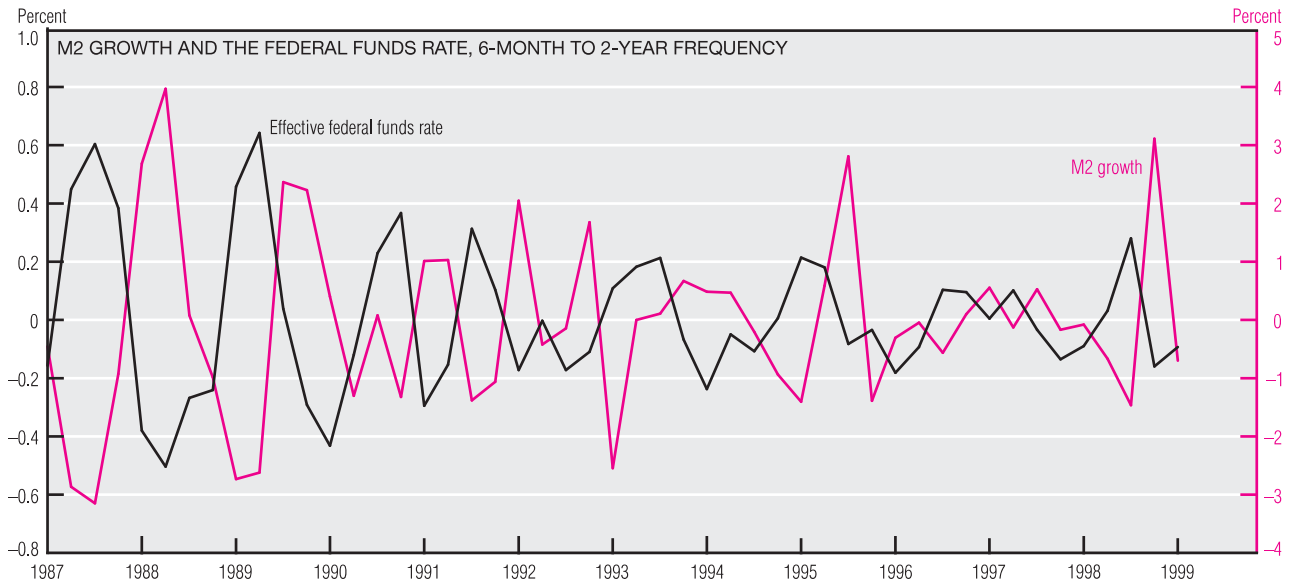
The answer hinges on the difference between their short-run and long-run movements. One strategy for analyzing this difference is to break down both the fed funds rate and the inflation rate into two sets of components: variations in each series at lower (longer-term) frequencies and at higher (shorter-term) frequencies.

If we concentrate on low frequencies like those associated with movements exceeding two years, the posi-

tive relationship noted above becomes even clearer. But if we look only at high-frequency movements (less than two years) we see that a higher funds rate portends lower inflation. This suggests that at least in the short run, increasing the fed funds rate may indeed lower inflation within a couple of quarters. But why should these correlations differ between low and high frequencies?

Like all nominal interest rates, the federal funds rate consists of both a  
(continued on next page)

## Monetary Policy (cont.)



NOTE: Change in the effective federal funds rate is calculated as the difference between quarterly average rates. Inflation and M2 growth are annualized changes in quarterly average CPI—all items and M2, respectively. Data are filtered using a band-pass filter.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System; and Lawrence Christiano and Terry Fitzgerald, "The Band-Pass Filter," February 1999 (unpublished).

real rate and an expected inflation component. In the short term, expectations are largely fixed, and the monetary authority controls the funds rate by changing the real rate. To lower the real (and hence nominal) interest rate, money growth expands. Given the well-documented positive relationship between money growth and inflation, this expansion tends to increase inflation in the following year.

Yet in the long term, everything is reversed. Since the monetary

authority affects only real variables (like the real funds rate) over the short term, ultimately the only way it can control the nominal funds rate is by changing expected inflation. Over the long term, a lower funds rate can be maintained only if money growth is lowered. This is apparent in the relationship between money growth and the fed funds rate at lower frequencies. The correlation that was negative in the short term is now moderately positive.

Where does this leave the policymakers who wish to lower both

short-term and long-term inflation? This analysis suggests a paradox: increasing the federal funds rate today may sow the seeds of future inflation. For the monetary authority, the solution is to follow the initial round of tightening with reductions in the funds rate when inflation starts to fall. The credibility of the monetary authority depends crucially on its following through with these reductions. Otherwise, money growth will increase, undermining policymakers' anti-inflation efforts.