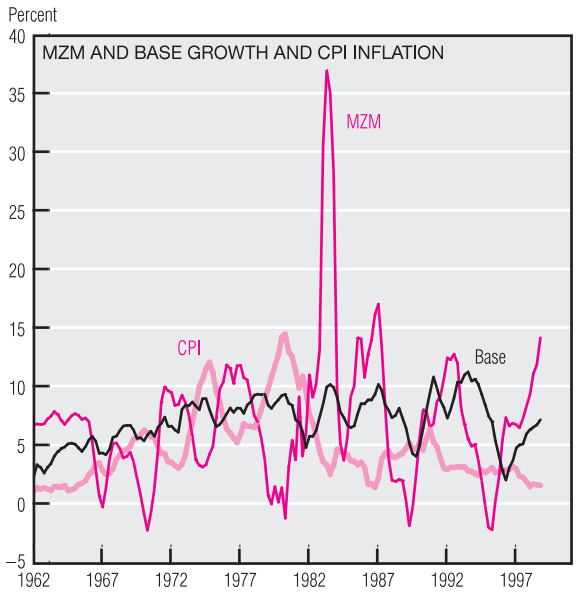
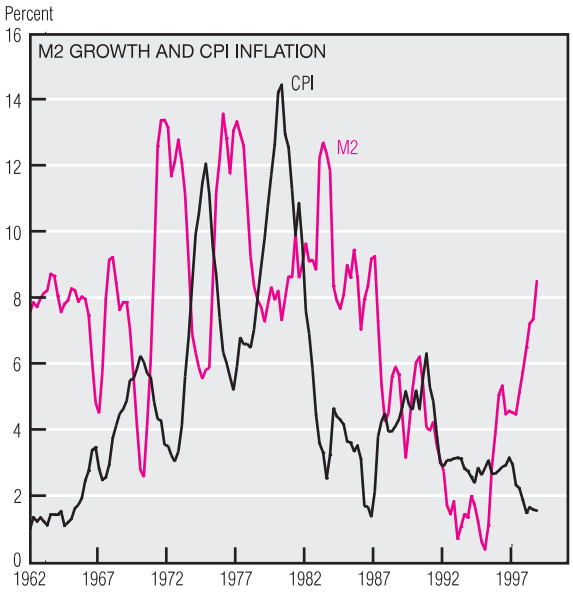
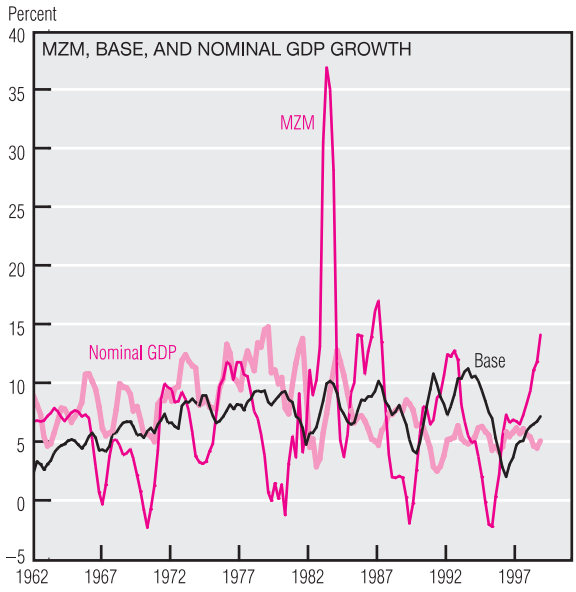
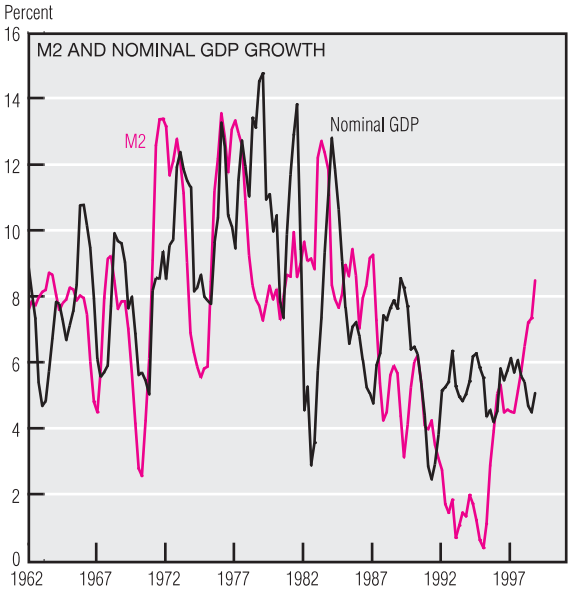
Interpreting the Money Numbers









NOTE: Data are quarterly and seasonally adjusted; all growth rates and proportional changes are calculated on a year-over-year basis.
SOURCES: Board of Governors of the Federal Reserve System; and U.S. Department of Labor, Bureau of Labor Statistics.

Some economists are concerned that higher inflation is just around the corner. One piece of evidence is high money growth. However, as the charts above show, there does not seem to be a tight relationship between money growth and inflation. Of course, some would argue that money growth translates into inflation with a lag, as it did in the 1970s. Yet, inflation dropped sharply in the early 1980s with no corresponding movement in any monetary aggregate.

Economic theory tells us that real money demand depends on real income and the nominal interest rate. Consider, first, the effect of real income growth. As real output grows, consumers hold more money to finance their purchases. To illustrate this effect fairly simply, compare money growth with that of nominal output (the sum of inflation and real output growth). This relationship appears to fit better than that between money growth and inflation. In particular, the long-term movements in M2 are mirrored by changes in nominal income.

Next, increases in the nominal interest rate tend to depress real money demand. That is, positive changes in the nominal interest rate should be associated with negative real money growth. In the charts on page 5, the scale for the change in the nominal interest rate (as measured by 3-month commercial paper) has been inverted, with numbers decreasing rather than

(continued on next page)

Interpreting the Money Numbers (cont.)

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increasing, as is normal. While MZM and base growth do not benefit much from this exercise, M2 does, especially with respect to short-term movements in real M2 growth.

Finally, we put together the effects of real output growth and the nominal interest rate on real money demand. One way to proceed is to plot the change in the interest rate against the growth rate of velocity, where the latter is equal to the growth in nominal income less that of money. Over some periods, both MZM and M1 velocity have moved closely with the interest rate. For example, the fit using MZM velocity has been fairly close since the early 1980s, but was not so tight in the 1970s. Likewise, base velocity moved closely with changes in the interest rate from the late 1970s through the early 1990s, but not so closely since then or in the 1960s. The fit between M2 velocity growth and changes in the interest rate is even closer over virtually the entire sample period. Given the small changes in the nominal interest rate, the recent decline in M2 velocity is troubling because it suggests that money growth has exceeded that which can be accounted for by recent inflation, real growth, and the interest rate. Notice, however, that the same situation prevailed in 1962–64, when there was little movement in inflation.