



National Economic Trends



Tracking Nominal GDP Using Money Supply Measures: Which To Choose?

Many economists believe that the growth rate of the money supply provides useful information about the current and future states of the economy. The quantity theory of money, which underlies these beliefs, predicts that if the velocity of money is constant the growth rate of nominal GDP will equal the money supply growth rate. The nominal GDP growth rate is the sum of the real GDP growth rate and the inflation rate.

One problem with this prediction is that there is more than one money supply measure to choose from. One popular choice is M1, a relatively narrow measure including very liquid assets such as currency and demand deposits (checking accounts). Another is M2, a considerably broader measure that also includes savings accounts, small time deposits and money market accounts.

The choice of a measure is important because different measures sometimes grow at very different rates. During the 13 months ending in May, for example, the average year-over-year money growth rate was 8.5 percent for M1, but only 2.9 percent for M2. Does the relatively brisk pace of M1 growth imply that growth in real output is likely to accelerate, and that the rate of inflation is likely to increase? Or does the sluggish pace of M2 growth suggest that growth in real output will continue to be slow, and that inflation will remain stable?

To provide some evidence on this question, we looked at the five episodes since 1960 when the growth rates of M1 and M2 were significantly different for an extended period.* We compared the average annual growth rates of the two money supply measures during the episode to the average annual growth rates in nominal GDP during the episode, during the first year after the episode, and during the second year after the episode. The M1 growth rates were adjusted for the 3 percent trend rate of velocity growth observed prior to the 1980s.

The M2 growth rate came closest to that of nominal GDP in three out of the five contemporaneous comparisons, four out of the four first-year-after comparisons, and three out of the four second-year-after comparisons. All three cases in which the M1 growth rate performed better occurred during the first two episodes. Across all 13 comparisons for which data are available, the average absolute difference between the M2 growth rate and the nominal GDP growth rate was 1.3 percent; the figure for M1, after the velocity adjustment, was 3 percent.

— Steven Russell

* The five episodes are July 1962—July 1963, April 1971—August 1972, July 1975—July 1977, September 1985—November 1987, and May 1991—March 1992. (The last episode is still in progress, but nominal GDP data for dates after March 1992 are not available.) The episodes represent periods when the difference between the year-over-year growth rates in M1 and M2 strayed more than one standard deviation away from its mean since 1960, and remained there for more than six months. The figures for nominal GDP growth are quarterly rather than monthly. They start from the quarter including the first month of the episode and end with the quarter including the last month.