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Monetary Trends

THE FEDERAL RESERVE BANK of ST. LOUIS

Measuring Recession Severity

The U.S. economy entered a recession during 2001, and many observers have remarked that the recession probably ended by the first half of 2002. A natural question to ask is, how severe was the 2001 recession compared with other downturns of the postwar era? To answer this question one might simply look at how many quarters of negative GDP growth the economy experienced and then compare this across episodes. This number is three, according to recently revised data, for the 2001 recession. By this measure, the 2001 recession was as severe as any in the postwar era. Yet many analysts claim that the 2001 recession was mild relative to previous downturns. To better gauge this recession's severity, we ask how far and for how long each recent postwar recession drove U.S. output below a trend rate of growth. Considering the total depth and length gives us a more complete picture.

The chart shows U.S. real GDP growth from 1960 through 2002. The line labeled "Smoothed output growth" is a five-quarter centered moving average of GDP growth rates. We use smoothed data to reduce clutter. The line labeled "Trend," which runs through the middle of the data, is a 29-quarter (that is, about seven years) centered moving average of GDP growth rates. These measures require data for 2002 and beyond; for these values we use forecasts from Blue Chip Economic Indicators. The chart shows six periods of pronounced decline in real output growth below trend, which we will call "recessionary periods." Each of these periods can be associated with a recession as defined by the National Bureau of Economic Research (NBER) Business Cycle Dating Committee.

For each recessionary period, there is a percentage given in the chart. This percentage is the amount of output that was produced by the economy while growing at recessionary rates, relative to the amount of output that would have been produced if the economy had grown at the trend pace instead. According to this measure, the worst recessions (with the lowest percentages) were in the mid-1970s and in the early 1980s. The 2001 recession was noticeably milder than each of the previous five recessions.

Since the pace of output growth has returned to trend, according to these measures, one might wonder why the Fed has kept its target federal funds rate so low as of mid-2002. A Taylor rule for monetary policy (see page 10) would suggest that the Federal Open Market Committee's (FOMC) federal funds rate target should be close to 3 percent, assuming an FOMC inflation target of 2 percent. However, the risk of higher inflation in the current environment is widely perceived to be low, which has allowed the FOMC room to maintain its low funds rate target.

—James Bullard

Trend and Cycle