

National Economic Trends

Economic News and Monetary Policy

The measurement process for economic data continues for years after the initial data release. For example, the April advance report on gross domestic product (GDP) in the first quarter of 2001 estimated that real GDP grew at a 2 percent annual rate. A month later, the preliminary estimate revised GDP growth down to 1.3 percent. The final estimate released on June 29 was 1.2 percent. But this figure is not truly final, as periodic methodological changes will likely lead to revisions of these numbers years from now. (The latest comprehensive revisions to GDP were discussed in the November 1999 issue of *National Economic Trends*.) In theory, we are supposed to get better estimates with each revision.

While these revisions might improve the accuracy of the data, revised data may not be appropriate for evaluating past forecasts or policy decisions. To evaluate past forecasts, we use the data that were first released because that is what forecasters were trying to predict. We also use real-time data to study the reaction of monetary policymakers to incoming economic news.

To make real-time data readily available, Croushore and Stark (2000) of the Federal Reserve Bank of Philadelphia have created a data set of major macroeconomic time series available at given points in time. Real-time monthly and quarterly data from November 1965 to the present are available.¹ These data are like photographs—capturing a single moment in time. Monthly figures are the data that were available to the public as of the fifteenth day of that month. Quarterly figures are the data that were available on the fifteenth day of the month in the middle of that quarter.

The accompanying chart illustrates the fit of real-time data in a version of the Taylor rule—a simple characterization of monetary policy that describes policy decisions concerning interest rates surprisingly well.

It is expressed as:

$$\text{Federal Funds Rate} = 1 + 1.5 \times \text{Inflation Rate} + 0.5 \times \text{Output Gap}.$$

If the equilibrium real interest rate (the long-run average difference between the funds rate and the inflation rate) is assumed to be 2 percent, then this version of the Taylor rule implies a long-run inflation rate of 2 percent. (In the long run, the output gap—the difference between actual and potential GDP—will be zero.) The chart shows that the Taylor rule provides a much better reflection of the actual movements in the federal funds rate when real-time inflation and output data enter the rule. It is interesting to note that the real-time Taylor rule rate generally lies above the actual federal funds rate—which makes sense given that the average inflation rate exceeded 2 percent between 1983 and 2000, regardless of whether one uses the real-time (2.8 percent) or current-vintage data (2.6 percent) to calculate the GDP deflator. In contrast, because the current-vintage Taylor rule rate generally lies below the actual federal funds rate, this rate mistakenly implies that actual policy was tighter than necessary to achieve an average inflation rate of 2 percent during this period. In this case, the real-time data lead to more sensible conclusions about monetary policy responses to the perceived state of the economy.

—William T. Gavin and Rachel J. Mandal

¹ Croushore, Dean and Tom Stark, "A Real-Time Data Set for Macroeconomists: Does Data Vintage Matter for Forecasting," Working Paper 00-6, Federal Reserve Bank of Philadelphia, 2000. www.phil.frb.org/econ/forecast/reaindex.html.

