As usual, investors are pondering Federal Reserve Chairman Alan Greenspan’s recent congressional testimony to get hints about future changes in interest rates. This speculation intensified last week with the announcements that the growth of gross domestic product had slowed but that wage inflation had picked up. Greenspan’s opaque style suggests that the Fed’s setting of rates is a mystery beyond the comprehension of mortal observers. But in fact, much of the variation in the federal funds rate—the interbank interest rate that the Fed controls closely—can be explained as Fed responses to two factors: inflation and aggregate economic activity.

The movement of the federal funds rate to these kinds of economic variables is often referred to as a Taylor rule, in honor of John B. Taylor, the Stanford University economics professor who enunciated the idea six years ago. Researchers have made numerous studies of the rule partly as descriptions of actual monetary policy and partly as analyses of desirable policy. Using a variant of the Taylor rule, I recently found that the funds rate during the Greenspan era so far—August, 1987, to July, 1999—can be explained by three factors: Rates respond positively to inflation (changes in the GDP deflator), positively to real GDP relative to its trend, and negatively to the unemployment rate.

The blue line in the chart shows the federal funds rate for the Greenspan period. The red line shows the values I estimated from my model. These values can be viewed as goals toward which the Fed tends to adjust interest rates over time. As the chart shows, the estimated values closely track the actual rates.

In June of this year, the funds rate of 4.75% was a full percentage point below my estimated value of the Fed’s goal. The gap arose partly because of the rate cuts in late 1998 and partly because the strong economy raised the estimate from 5% at the end of 1998, to 5.8% in June, 1999. Probably in response to that gap, the Fed raised the federal funds rate to 5% in June. For July, I estimate the Fed’s goal to be 5.7%, so the gap between that and the current funds rate comes to 0.7 percentage points. To eliminate this gap, the Fed would have to raise the funds rate by an additional half- or three-quarter point. The history of the Greenspan monetary policy predicts that these increases will come, but the timing is difficult to gauge.

Since the Fed’s principal mission is to maintain low and stable inflation, it is not surprising that it would raise rates when inflation increases. However, the case for hiking interest rates solely because the economy is strong is less clear. The GDP deflator is currently only about 1.5% per year. However, should we expect higher inflation because economic growth has been strong and unemployment low? If so, there would be good reason for the Fed to keep ahead of the game by raising interest rates before inflation had risen. But the data do not support this approach: Greater economic strength (higher GDP and lower unemployment) turns out not to predict significantly more inflation. So, perhaps Greenspan should moderate this part of his formula and mainly raise interest rates in response to increases in actual inflation.

One of the curious aspects of the current prosperity is that the Fed chairman has become some sort of prophet from whom people expect wisdom on all aspects of economic life. He is now viewed as an expert not only on monetary policy but on technological change, Social Security, fiscal policy, and diverse other matters. The fact is that Greenspan is no more than a competent economist who put the proper stress on price stability and was fortunate enough to be in office when this objective was achievable through a simple interest-rate rule. Some of the favorable factors for U.S. monetary policy were strong technological progress, expansions of global markets, and reductions in inflation worldwide.

Robin Yount said on his recent induction into the baseball Hall of Fame that he had taken Lou Gehrig’s place as the ‘luckiest man on the face of the earth.’ I think that this distinction really has to go to Alan Greenspan.