

September 17, 2009

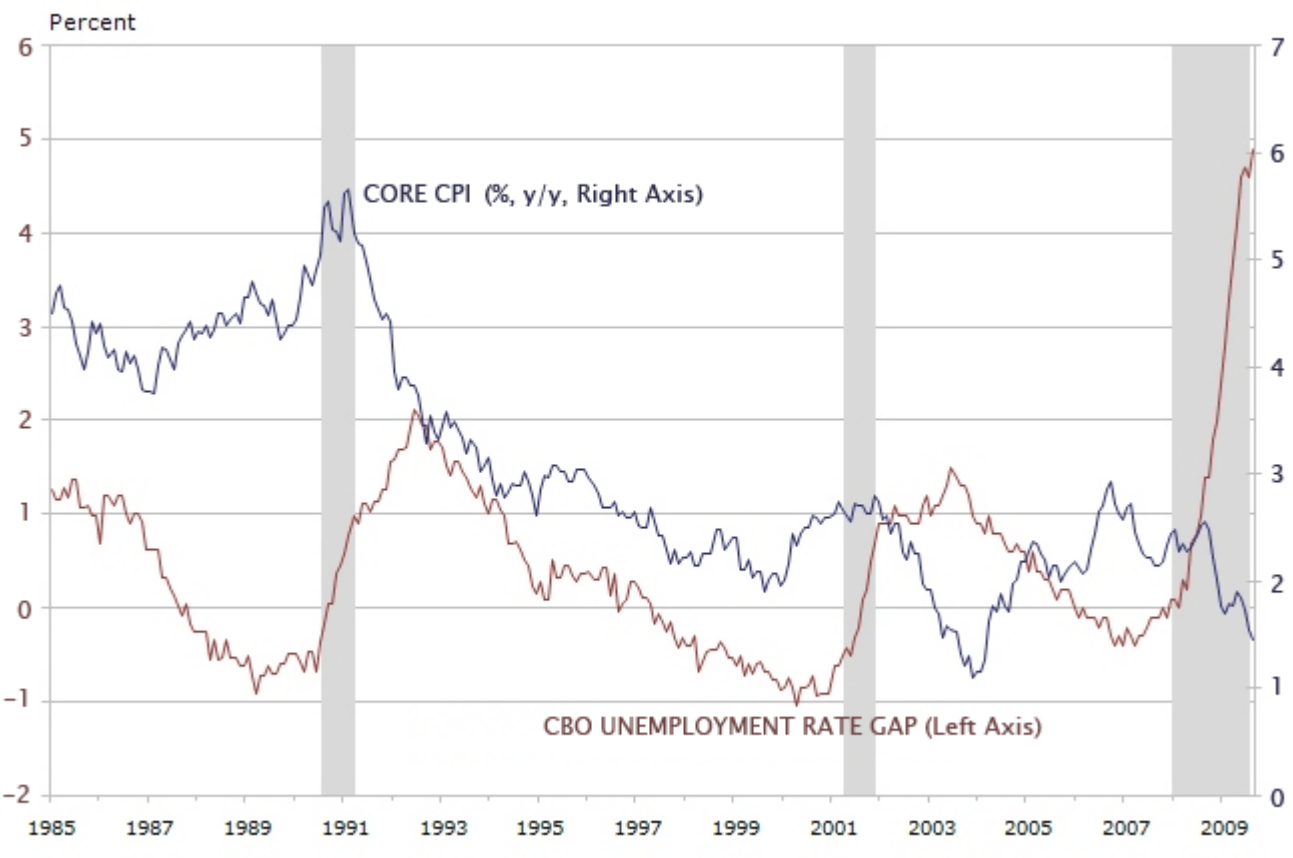
An agnostic gets a little religion

Yesterday's consumer price index (CPI) report showed further disinflation in August, at least on a year-over-year basis. Headline inflation was down 1.4 percent from last year, the largest 12-month decline since January 1950, save for the 2.1 percent decline the month before. Core inflation crept down to 1.5 percent in August, and private forecasters see slow price growth continuing through at least next year. The Blue Chip Economic Indicators, a monthly poll of around 50 business economists in the United States, showed consensus expectations for year-over-year growth in core CPI at 1.5 percent in 2010, a relatively low number compared with recent history, and a shade under the panel's forecast for 1.6 percent in 2009.

I'm a bit of an agnostic when it comes to the predictive capacity of the Phillips curve—the inverse relationship between unemployment and inflation. There is considerable evidence that looking at the gap between unemployment and the nonaccelerating inflation rate of unemployment (NAIRU, sometimes termed the natural rate of unemployment) isn't necessarily useful for estimating future inflation; [Atkeson and Ohanian](#) found that inflation predictions from Phillips curve-based models were no more accurate than a naïve forecast where future inflation is defined by its recent past, ignoring the current state of the economy. A more recent working paper by [Stock and Watson](#) supports Atkeson and Ohanian's evidence that the predictive abilities of Phillips curve forecasts are not very robust. But Stock and Watson also point out that when the gap is big, there is more information that can be gleaned.

"When the unemployment rate is near the NAIRU ... Phillips curve models do worse than the UC-SV model [a modified version of the Atkeson-Ohanian naïve forecast]. But when the unemployment gap exceeds 1.5 in absolute value, the Phillips curve forecasts improve substantially upon the UC-SV model. Because the gap is largest in absolute value around turning points, this finding can be restated that the Phillips curve models provide improvements over the UC-SV model around turning points, but not during normal times."

Core Inflation and the Unemployment Rate "Gap"



Source: U.S. Bureau of Labor Statistics, Congressional Budget Office

Stock and Watson argue that large positive (or negative) unemployment gaps (like those usually found around turning points in the business cycle) do improve the inflation forecast. So when the unemployment gap swells—as it did following the 1990 and 2001 recessions—we should anticipate more downward pressure on inflation than the naïve models would have forecast. The chart above, which shows core CPI and the unemployment rate gap as estimated by the Congressional Budget Office (CBO), seems to bear out this point. High rates of unemployment following the 1990 and 2001 recessions were also associated with turning points in the core inflation trend.

If Stock and Watson have it right, then the huge rise in the unemployment rate we've seen over the past year isn't something that inflation forecasters will want to ignore, and the downward drift in core inflation associated with this recession could be with us for a while. That potential scenario follows their reasoning, but like I said, I'm an agnostic when it comes to Phillips curves.

By Laurel Graefe, senior economic research analyst at the Atlanta Fed

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