Monetary Trends

April 2011

Monetary Policy's Effects on Unemployment

Incoming economic data this year have been encouraging, including a drop of 0.5 percentage points in the unemployment rate. Is this a sign that the Federal Reserve's quantitative easing (officially referred to as the "Large Scale Asset Purchase" [LSAP]) program is working? Perhaps. But some economists and analysts are cautious for several reasons. First, LSAP programs directly increase the deposits held by financial institutions at the Federal Reserve—that is, the monetary base. Historical data do not suggest that increases in the monetary base have reliable and significant positive effects on aggregate output and employment. Second, even though changes in the monetary base may affect real interest rates in the short run, it is not clear how much of this can translate into higher output and employment through the effect of interest rates on aggregate demand.

The impact of LSAP programs on economic activity depends on the programs' effects on *longer-term* interest rates and the responsiveness of aggregate demand to such changes. The St. Louis-based consulting and forecasting firm Macroeconomic Advisers recently estimated that the Federal Open Market Committee's current $600 billion LSAP program likely will reduce the 10-year Treasury yield by 20 basis points, increase the eight-quarter-ahead level of real gross domestic product by 0.4 percentage points, reduce the unemployment rate by 0.2 percentage points, and increase employment by 350,000 jobs. Although analyses conducted by other institutions (such as the Boston and San Francisco Feds) have suggested slightly higher figures, the overall effect of the LSAP programs on unemployment is modest.

A less-recognized risk in LSAP programs is that permanent increases in the monetary base foreshadow eventual increases in inflation that can increase, rather than reduce, unemployment over the long term. David Ranson of Wainwright Economics has analyzed the U.S. data over the period of 1950 through 2007. Ranson divided the 57-year period into two categories: years when the monetary base grew at an above-average rate (8.1 percent) and years when it grew at a below-average rate (3.5 percent). Ironically, economic growth was higher in the years of slow money growth (3.7 percent) than it was in the years of rapid growth (3.2 percent). The same was true for industrial production. Meanwhile, the consumer price index rose 5.1 percent in years of above-average monetary growth and just 2.6 percent in below-average years. The gold price showed an even bigger differential, rising 12.5 percent in above-average years and just 0.6 percent in below-average years.

Other recent analyses, using different tools, have reached similar conclusions. In my current research, I have estimated models for the period 1948:Q1 to 2008:Q2 that suggest that a sustained increase of 1 percentage point in the growth rate of the monetary base has almost no impact on unemployment during the initial 20 quarters but can significantly increase the unemployment rate in the longer run (say, during the subsequent 20 quarters). Extrapolated to the very long run, my analysis suggests that a sustained 1-percent-per-year faster growth of the monetary base might increase the unemployment rate by between 1.0 and 2.2 percentage points. The reason is that expected long-term inflation is bad for growth and employment.

A recent article in the *American Economic Review* documented a similar positive relationship between longer-term inflation and the unemployment rate (Berentsen, Menzio, and Wright, 2011). These authors use a search-and-matching model to explain why longer-term inflation can increase, rather than decrease, the unemployment rate. That is, inflation reduces the demand for money and, hence, hinders trade and the probability of matches in both the goods and labor markets.

In summary, the near-term effects of LSAP programs on unemployment remain uncertain. Further, caution must be exercised such that long-term inflation does not increase. More and more economic research suggests that the long-run costs of inflation, measured in welfare terms, are likely higher than previously estimated (see Wen, 2010). Fortunately, at least one recent cross-country study (Anderson, Gascon, and Liu, 2010) suggests that this long-run lesson is well understood by policymakers.

—Yi Wen

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Wen, Yi. "Liquidity Demand and Welfare in a Heterogeneous-Agent Economy." Working Paper No. 2010-009A, Federal Reserve Bank of St. Louis, March 2010; http://research.stlouisfed.org/wp/2010/2010-009.pdf.