Monetary Trends

August 2005

Closing the Gap

A popular measure of inflation is based on the consumer price index (CPI). The total CPI measures the price of a market-based basket of goods and services, relative to the base year. Core CPI inflation is the year-over-year rate of change of the CPI, excluding food and energy commodities and energy services.[1]

The core CPI inflation rate is an aggregate measure and therefore hides important differences between goods and services with regard to the behavior of inflation. Between January 1968 and April 2005, the price of services (excluding energy services) grew at an average annual rate of 5.55 percent. Over the same period, the price of goods (excluding food and energy commodities) grew at an average annual rate of 3.27 percent. In other words, the price of services, relative to goods, grew at an average annual rate of 2.27 percent over the past 37 years.[2]

In the 1990s and early 2000s (between the two vertical lines in the chart), goods and services core inflation rates were extremely different. Core goods inflation declined sharply from around 4 percent to –2 percent. Core services inflation hovered around 4 percent. The difference between the two core inflation rates widened from 0 to 6 percent. This widening gap has provoked opposing views. Some have argued that a high sustained rate of inflation for services could drag the overall inflation rate upward. Others fear that declining prices of goods could trigger a general deflation.

Peach, Rich, and Antoniades observe that, while the gap between services and goods inflation rates moves around in the short run, it has a tendency to return to a constant equilibrium value in the long run.[3] The recent behavior of core goods and services inflation confirms their finding. In the past two years the gap has returned to its long-run value, with a decline in services inflation and a sharp rise in goods inflation.

The long-run behavior of the gap between services and goods inflation is not surprising. The monetary policy stance determines the overall inflation rate. One of the objectives of monetary policy is to keep prices stable. A successful monetary policy enforces a low and stable value of overall inflation, which is a weighted average of goods inflation and services inflation. This rules out the possibility that both goods and services inflation rates increase or decrease indefinitely. Core CPI inflation could be stable with goods inflation and services inflation moving in opposite directions indefinitely. However, this would imply that either goods or services prices would eventually become negative.

In summary, even if goods and services inflation rates behave differently in the short run, they cannot diverge indefinitely because monetary policy puts a constraint on their weighted average and prices cannot be negative.

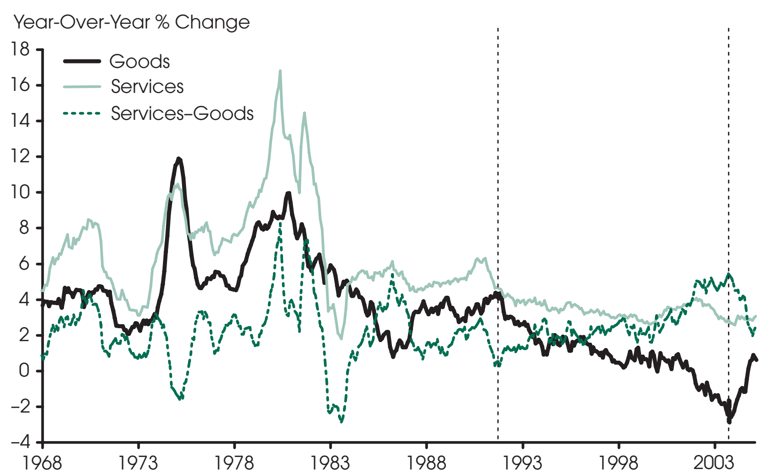
—Riccardo DiCecio

[1] For details on different measures of core inflation, see Kristie M. Engemann and Michael T. Owyang's "Hard 'Core' Inflation," Federal Reserve Bank of St. Louis *Monetary Trends*, February 2005.

[2] This increase in the relative price of services is a well-documented fact and is believed to be caused by differences in total factor productivity across sectors.

[3] Peach, Richard W.; Rich, Robert and Antoniades, Alexis. "The Historical and Recent Behavior of Goods and Services Inflation." Federal Reserve Bank of New York *Economic Policy Review*, December 2004, *10*(3), pp. 19-31.

CPI Core Inflation Rates (seasonally adjusted)



SOURCE: Bureau of Labor Statistics.