October 16, 2009

The September CPI with all the trimmings

Yesterday, the U.S. Bureau of Labor Statistics reported that retail prices rose 2 percent (annualized) in September, and it characterized the increase as "broad based, although tempered by a decline in the food index." Indeed, the traditional measure of core inflation (the consumer price index, or CPI, less food and energy) also rose 2 percent (annualized) in September.

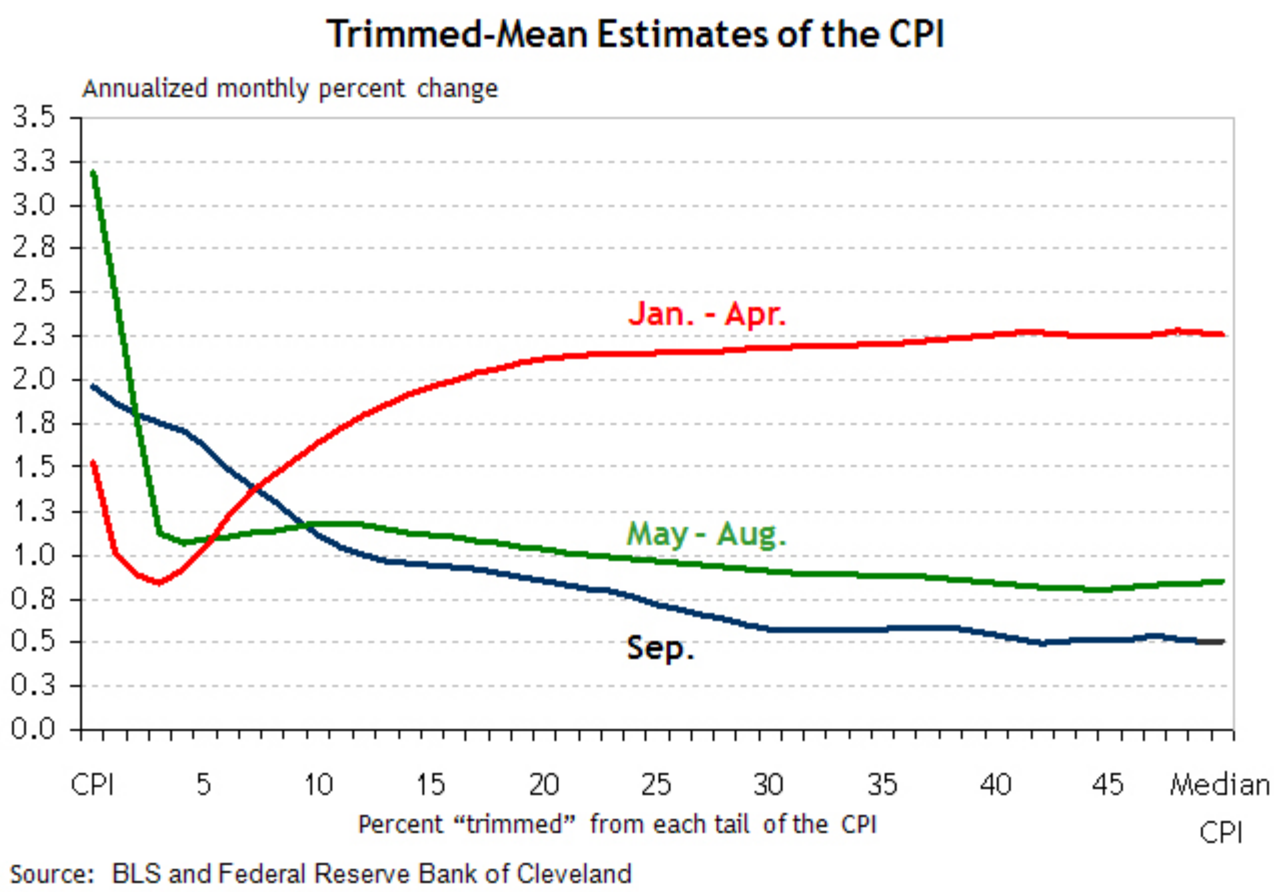
But if you read just a few sentences further into the report, you get this observation:

> "Contributing to this increase were advances in the indexes for lodging away from home, medical care, new vehicles, used cars and trucks, and public transportation. The increase occurred despite declines in the indexes for rent and owners' equivalent rent, the first decreases in those indexes since 1992. The energy index also increased in September, as increases in the indexes for gasoline, fuel oil and electricity more than offset a decline in the index for natural gas."

This observation begs an important question: What exactly does "broad based" mean here? Rent and owners' equivalent rent actually declined last month. These categories represent a shade more than 30 percent of the CPI. If you add in all the other things that showed outright price declines in September, like food, car rentals, men's apparel, and furniture, about 44 percent of the CPI *fell* last month. In fact, the two of us believe there is ample evidence in the data of significant disinflationary pressure—much more than the CPI or the core CPI would imply.

One way to get a sense of how broadly based the September price increases are is to examine the "trimmed-mean" estimators produced by the Federal Reserve Bank of Cleveland. Trimmed-means compute the rise in the CPI after excluding, or trimming, a proportion of the most extreme price movements. (If you want to learn more about this procedure, we suggest you read here or watch the Cleveland Fed's "Drawing Board" segment on the idea.)

The figure below shows all of the trimmed-mean CPI estimators ranging from just a tiny proportion of the items trimmed to virtually all of the items trimmed.



For the September CPI, note the rather dramatic drop in the estimate of retail inflation as you trim only a small share of the extreme price changes in the CPI market basket. Just cutting out the most extreme 6 percent of the highest and 6 percent of the lowest price changes reduces the measured inflation rate from 2 percent to 1.5 percent. And the more you trim, the lower the inflation estimate. The median CPI rose a mere 0.5 percent last month.

An interpretation of these data is that the September CPI increase was anything but broad-based. Moreover, the data seem consistent with the idea that prices overall are on a path of disinflation. During the first four months of 2009, the majority of the trimmed-mean estimators put retail inflation roughly between 2 percent and 2.3 percent. In the May to August period, most of the estimators were under 1.3 percent. In September, the majority were under 1 percent.

By Michael Bryan, a vice president in research at the Atlanta Fed, and Brent Meyer, an economic analyst at the Cleveland Fed

October 16, 2009 in Data Releases, Inflation | Permalink