September 2, 2008

Does the GDP deflator lie?

Though last week's report on U.S. gross domestic product (GDP) growth in the second quarter is second-hand news by now, I've taken note that Barry Ritholtz's views on the news has, in particular, continued to rumble through the blogosphere. Barry is not happy with the GDP deflator, and samples approvingly from a Barron's article by Aaron Abelson:

> "GDP, in common parlance, stands for gross domestic product, or the aggregate value of all the goods and services produced on these blessed shores... These days, alas, those initials more typically signify "gross deceptive pap"...
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> "Comes now the so-called preliminary estimate that claims second-quarter GDP grew by a much more robust 3.3%.
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> "The key here is the GDP deflator, which purports to adjust GDP for the impact of inflation; it's a curious calculation in that, contrary to its moniker, it seems designed to do the exact opposite of deflating GDP.
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> "Thus, according to this accommodating measure (accommodating, that is, if you're determined to put a good face on a dreary report), inflation grew at an improbably restrained 1.33% in April-June. And maybe it did—but not in the good old U.S. of A. However, obviously more important than accuracy to those doing the calculating is this simple equation: The lower the deflator, the greater the growth of GDP…
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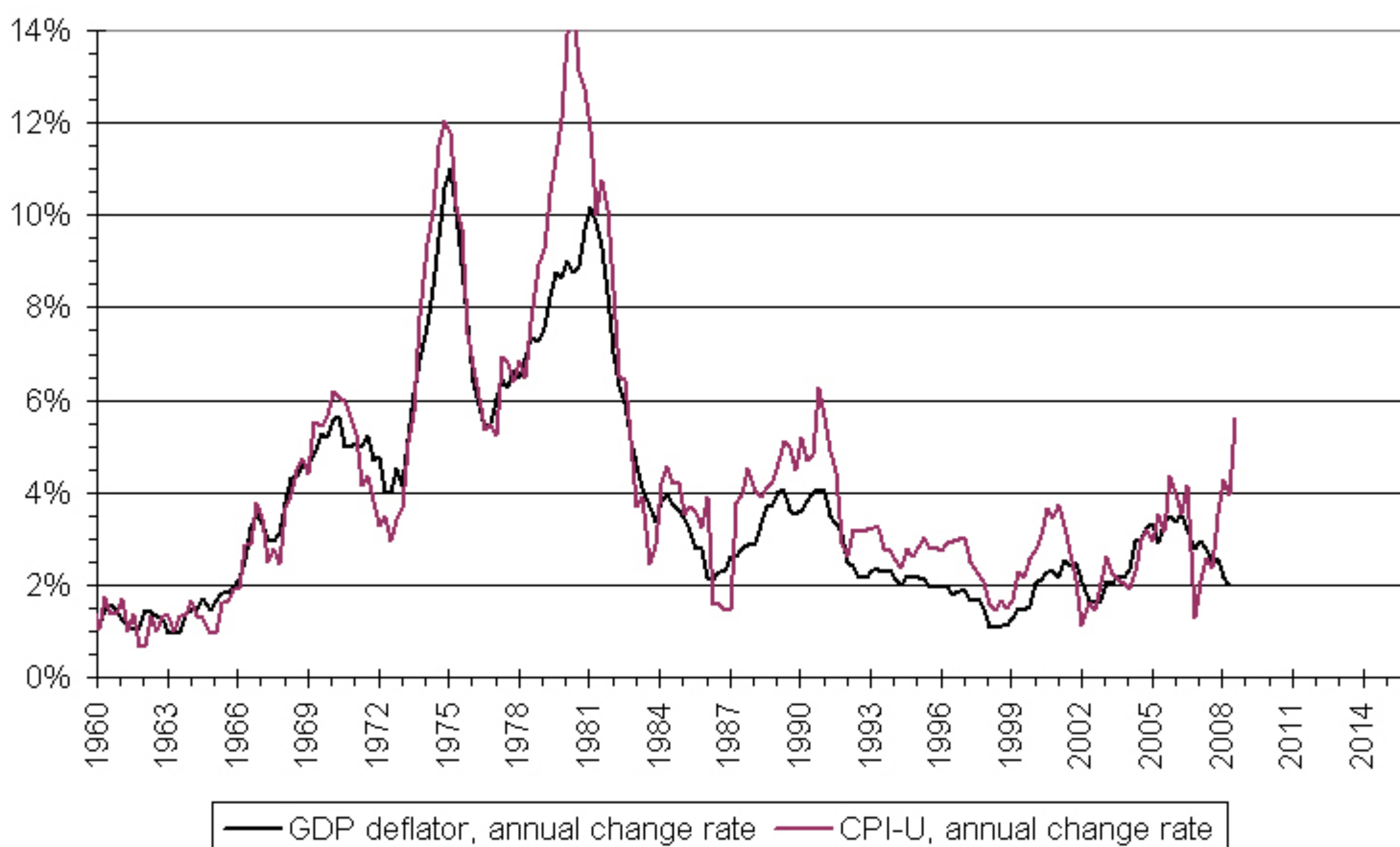
> "Of course, even by the government's not entirely extravagant figuring, the consumer price index was up a hefty 8% in the latest quarter. Perhaps the computer that tallies the CPI doesn't talk to the computer that measures the deflator."

Strong words, but if you ask me, misguided. Barry actually makes the case against the case in this picture, about which he notes:



Source: The Big Picture

> "It's no coincidence that the current situation resembles past ones where oil prices had spiked. Since more than half of the U.S. Crude consumption is imported, the price and quantity go into all GDP calculations as a negative."

Exactly. Let me provide an elaboration of the spot-on point made at The visible hand in economics blog. For the sake of argument assume that every drop of oil consumed in the United States is imported, and everything imported to the United States is oil. If we leave exports out of the picture for simplicity, we can think of U.S. consumption as consisting of GDP—everything produced in the United States—and imported oil.

Suppose, then, that the price of oil rises precipitously. If both incomes and oil consumption are relatively fixed in the short-run, what

would we expect to happen? The answer is more expenditure on imported oil and less spending on everything else. As the demand for domestically produced goods and services falls, so would their prices. (Or more generally, they would rise at a slower than normal pace.) Since domestically produced goods and services by definition constitute GDP, GDP-deflator inflation will be low, while the consumer price index (which would include nonexported GDP plus imports) could well be quite high.

Voila! A simple Econ-101 explanation, with nary an insult hurled at the good folks from the Bureau of Economic Analysis.

That said, there are plenty of reasons to be cautious in interpreting last week's report. Mark Thoma has a fine roundup of many fine points by many fine bloggers. To that list I'd add comments by Spencer at Angry Bear, William Polley, Lim at The Skeptical Speculator, Ben Leeson at Working Thoughts, Zubin Jelveh and Felix Salmon (both at Portfolio.com), to name a few. But I would delete the suspicion that low GDP-deflator-based inflation suggests shenanigans are afoot.

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