



Consumer Confidence and Gas Prices

Posted by [Stuart Staniford](#) on November 30, 2005 - 5:38am

Topic: [Economics/Finance](#)

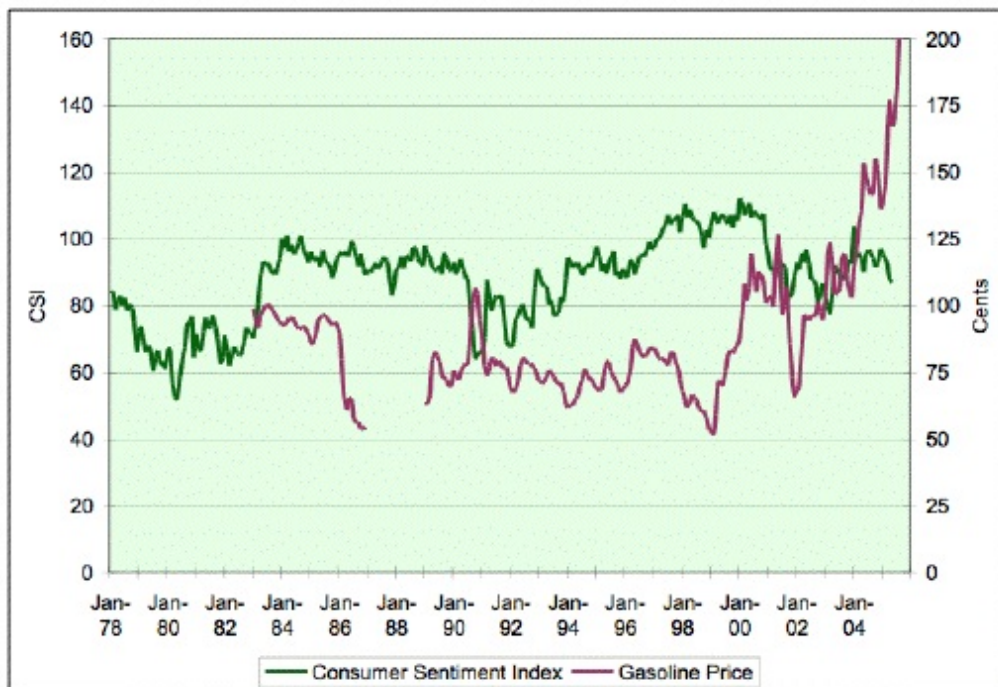
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The last couple of days have had a lot of interesting news. In particular, AP tells us that [Consumer Confidence Up As Gas Prices Dip](#):

The Conference Board, a private research company, said that falling gasoline prices and an improved jobs outlook had lifted confidence in November to a reading of 98.9, up from 85.2 in October.

Intrigued by the idea that gas prices are a major driver of consumer confidence, I wondered if the connection is really that strong. Militant empiricist that I am, I went and got the data...

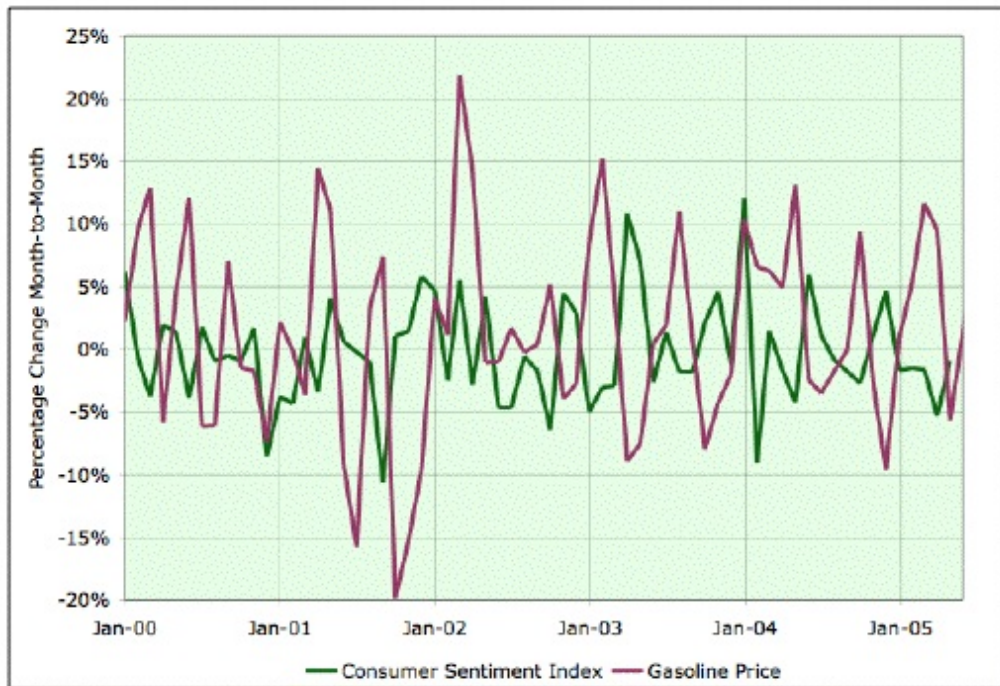
Well, it turns out it's pretty bogus. I got the data on the [Consumer Sentiment Index](#) from the University of Michigan, and plotted it against gasoline prices (nominal) from [the EIA](#).



Consumer Sentiment Index (left scale), and gasoline price in cents (right scale). Gas prices are nominal (ie not adjusted for inflation) due to laziness and difficulty finding long monthly CPI deflator series.

The long haul correlation is pretty weak, to say the least.

Just in case the situation was better at short range, I constructed month on month percentage changes and examined those. A short section of the plot is shown here (I didn't want to count on you having a [30" flat screen](#) as I am fortunate to).



Month on month change in Consumer Sentiment Index and gasoline prices from Jan 2000 to present. Gasoline prices are not adjusted for inflation, but this is probably negligible in month-on-month changes.

Some weak inverse correlation is visible - sometimes when there's a sharp spike in gas prices one way, there's a corresponding spike the other way in the CSI. However, it's a pretty weak connection. It turns out that the r^2 correlation coefficient is only 7%. That is to say that 7% of the variance in the consumer sentiment index is explained by gasoline prices. Clearly consumers generally have other things on their mind.

But, who's to say that this month isn't the one the 7% is showing up - hard to falsify the AP reporter altogether.



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