



Whither Oil Prices?

Posted by [Dave Cohen](#) on September 18, 2006 - 1:09am

Topic: [Demand/Consumption](#)

Tags: [james hamilton](#), [michael lynch](#), [oil prices](#), [price bubble](#), [price volatility](#), [risk premium](#) [[list all tags](#)]

[editor's note, by Dave Cohen] The closing NYMEX price for the crude oil October 6th contract was \$63.33, up 11 cents on the day.

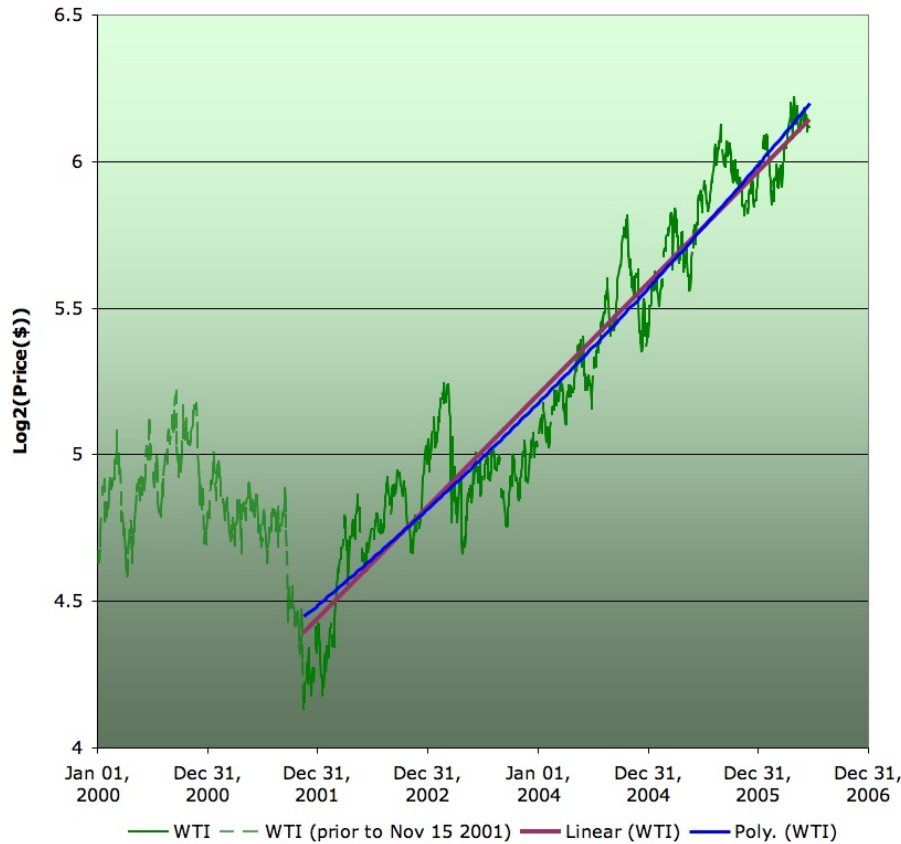
Since early August, oil prices have fallen considerably. From the EIA's latest [This Week in Petroleum](#).

Oil Prices Continue to Drop

In the last 5 weeks, since August 7, oil prices, both for crude oil and petroleum products, have dropped substantially. The price of West Texas Intermediate (WTI) crude oil has fallen from \$77 per barrel to below \$64 per barrel. Retail gasoline prices have dropped 42 cents per gallon to \$2.62 as of September 11, while retail diesel fuel prices, at \$2.86 per gallon, are now about 20 cents per gallon lower than they were 5 weeks ago. Will the declines continue, or will they begin to level off and possibly increase later this year?

Let's examine the EIA's timely question. Combined with the [Jack-2 Test Well](#), the dropping prices have served as fodder for those [debunking](#) peak oil claims.

In June of 2006 Stuart Staniford argued convincingly that oil prices were not in a [bubble](#). His article is recommended background reading and includes an excellent description by John Kenneth Galbraith of speculation in the markets. Here's the last part of Stuart's analysis.



Log (base 2) of West Texas Intermediate spot price in nominal US dollars Jan 2000-Jun 20th, 2006, together with linear and quadratic fits to the data from Nov 15th, 2001 onwards (the low before the recent price run-up). On this scale, 4 is \$16, 5 is \$32, and 6 is \$64. Graph is not zero-scaled.

Figure 1 -- Click to Enlarge

I have taken the start of the price rise as November 15th 2001 which is when prices bottomed out after the tech crash and the events of 9/11. To that price rise I fit both a linear trend, and a quadratic. To the extent the price was curving up in a bubblicious manner, we would expect the quadratic to depart markedly from the straight line. It elects not to do so - the two are very close. Thus we see that although there is considerable volatility in the price (and the pattern of that is worth further analysis in the future) the price rise is very much exponential in nature. So I take this as further evidence that we do not have a self-reinforcing bubble.

At least not yet.

It is natural to ask whether we are witnessing the bursting of an oil price bubble. Was Stuart wrong?

[editor's note, by Dave Cohen] I should add that if Stuart was wrong, so was I.

On the other hand, prices have been subject to "considerable volatility" in recent years so the current bearish oil market may simply be an exaggerated extension of that trend. James Hamilton of Econbrowser has an interesting analysis of what's happening now. Here's his take on things in [Gasoline prices will fall even more](#) published on September 13th.

So what is going on? I've [argued](#) that speculation in oil has in part been driven by the asymmetric payoff structure in a tight market. With limited excess capacity, any supply disruption had the potential to produce quite a spike up in prices, and that possibility may have been regarded as sufficient compensation to speculators for the risk of a price decline that would be expected to occur if none of those events took place. But we're now operating on the flip side of that same calculation-- hurricanes have so far failed to disrupt this season's production of oil from the Gulf of Mexico and the conflict with Iran seems to be playing out as an awkward standoff. The absence of bad news means prices had to drop.

Furthermore, there is some evidence that petroleum demand is finally starting to be tamed, which is of course one way to create more excess production capacity in the world oil market. My concern here is that the incipient economic slowdown may be the most important factor responsible for declining petroleum demand. And to the extent that's the story, the oil price declines are not exclusively a harbinger of good economic news.

Indeed, the [optimists](#) are out in force because of the "absence of bad news".

"Prices have just begun to drop," said Michael C. Lynch, of Amherst, an oil-industry analyst who heads Strategic Energy & Economic Research Inc. with clients ranging from the U.S. Department of Energy to Aramco, Saudi Arabia's national oil company.

Growing supplies of oil and oil products, coupled with weak demand, which is the response to the past year's high prices, have been reducing the price of crude oil, he said. From its current price of about \$67 a barrel, Lynch said he thinks "it will stabilize in the low 40s within the next year."

Hamilton's remarks bring together many of the factors said to be affecting current prices.

- easing global demand—see [Oil Trades Near Five-Month Low After IEA Lowers Demand Forecast](#)
- perceived lower risk premiums—see [Oil rebounds after six-day slide, Iran risk ebbs](#)
- weak hurricane activity—see [Oil Price Increases in New York, Remains Near Six-Month Low](#)

No doubt analysts like Lynch would argue that we are arriving at the end of a speculative bubble. Hamilton's view sees continued volatility based on "the asymmetric payoff structure in a tight market." As he points out, there has been no new supply easing spare capacity concerns, a point reinforced by continuing bad news out of Iraq and [Nigeria](#). Instead, decreased demand is "one way to create more excess production capacity in the world oil market."

Three other considerations must be added to these analyses. First, OPEC decided not to cut production quotas at their recent meeting. Second, inventories have been higher than normal this year although there was an [unexpected drop](#) in crude stocks just last week. Last but not least, oil prices are undergoing a seasonal adjustment—though the change seems to have arrived a bit early this year.

Figure 2 -- Click to Enlarge

Prices have fallen from their risk-induced high of \$78/barrel (Israeli/Hezbollah war) to just above \$63/barrel as of this writing. A quick glimpse at *Figure 2* reveals that after the risk-induced high (hurricanes) of \$70/barrel in 2005, prices subsequently fell to about \$57/barrel. In 2004, prices reached \$55/barrel in late summer before falling to about \$42/barrel in October. However, the current drop of about \$15/barrel exceeds both prior years by \$2/barrel—and October isn't here yet.

Getting back to the original question, it is apparent that the answer is not straightforward; predicting future oil prices never is! In the shorter term, prices could easily fall precipitously down to the \$50s or even the \$40s before the late year seasonal rise kicks in. There seems little reason to expect the great volatility of past years to end any time soon. While things are quiet now on the risk premium front, underlying conditions defining the uncertain geopolitical situation have not changed. However, if global demand continues to ease, prices may not bounce back to expected levels in the high \$60s or \$70s.

The optimistic Michael Lynch sees prices stabilizing in the low \$40s within the next year. That's not even the lowball estimate. In Business Week's story [Oil: A Bubble, Not a Spike?](#), analyst Tim Evans believes "the crude rally isn't justified by fundamentals and expects prices to 'fall hard' soon to \$26 to \$30 a barrel", thus reflecting the bubble view of reality.

Evans, a senior analyst at IFR Energy Services, a division of Thomson Financial, thinks that the current run-up in oil prices is much like the Internet bubble of the late '90s. While other analysts are calling for crude to hit upward of \$100 per barrel in the next few years, he believes the bubble will burst in the next several months, bringing prices back down into the upper-\$20s range.

[Recently, Evans said], we saw the highest level of commercial crude oil inventory in the U.S. since June, 2002. Then, we were trading in the range of \$26 to \$30 per barrel. The current physical fundamentals, not even projecting to a greater surplus down the road, are consistent with a \$26 to \$30 price.

But were this to happen, is it good news? Since there is no supply-side relief, stable prices (which would be an anomaly given recent trends) in the low \$40s or below that would necessarily reflect steep declines in demand—perhaps even recession in some OECD nations. Otherwise, market supply & demand fundamentals do not appear to support such a pricing prediction. Furthermore, OPEC regards \$60/barrel as a new baseline. From [Oil Gains on Foiled U.S. Embassy Attack, OPEC Price Vigilance](#):

Members of the Organization of Petroleum Exporting Countries, which pumps 40 percent of the world's oil, decided yesterday to keep production quotas unchanged. The group wants prices to stay above \$60 a barrel, Iranian Oil Minister Kazem Vaziri-Hamaneh told reporters today in Vienna, speaking through a translator,

``The price we favor is not below \$60" a barrel, for OPEC's basket oil price, Vaziri-Hamaneh said. ``Supply is more than demand and stocks are at a very high level, and because of these two factors, prices are very fragile."

Oil pared early gains today as the International Energy Agency cut global oil demand estimates for 2006 and 2007, spurred by a slowdown in the U.S., the world's largest energy consumer.

OPEC will probably implement production cuts if prices fall much below \$60/barrel in an already tight market. Earlier this year, Venezuela was [calling for](#) such cuts.

Finally, should oil prices fall precipitously from recent levels, the effect on new investment to increase global production could be disastrous. Marginal per barrel costs for new E&P is increasing into the \$25 to mid \$30s range. Prices in the low \$40s leave little room for desired large returns on investment. Low prices discourage exploitation of the higher risk, high cost projects that now dominate the oil production scene. The position of analysts like Lynch seems to carry with it an inherent contradiction: low prices and increasing supply. In addition, high price volatility also discourages investment. No one on the upstream supply side wants to see great fluctuations in price.

Whither oil prices? There is still no convincing evidence that oil prices have been bubbly over the last few years but there is no fully convincing explanation for the steepness of the current price decline either—lack of bad news doesn't seem to be the whole story. The short-term group psychology of the current market must be playing some role. Here's an interesting story for all to read as we conclude this essay—[Oil and XOI Corrections](#), written September 15th.

Fundamentals take years to change at best. It is inconceivable that the world oil market changed fundamentally since the latest 17% slump in oil started a little over a month ago. If fundamentals cannot change that fast then they still remain very bullish. So the recent correction based on speculators getting worried about a geopolitical/hurricane lull is a psychology-driven technical event. And such countertrend moves rarely last for long since sentiment changes so rapidly.

This view is not inconsistent with Hamilton's but merely adds another dimension to it.

The future oil price can not be known but all of the considerations discussed here will play some role going forward.



This work is licensed under a [Creative Commons Attribution-Share Alike 3.0 United States License](#).