Crude Oil And Speculation

One of the advantages of having worked as an economist in the government affairs department of a now-departed major oil company during the second oil shock of the 1970s is I have seen this movie before. I hear the arguments, accusations and rebuttals and sneer to myself, "Amateurs! That line didn't work in 1979; what makes you think they are going to fall for it now?"

And as long as we are on the movie theme, may I recommend the political spinmeisters of *Wag The Dog* and the tobacco industry spokesman in *Thank You For Smoking*? Nice, but both could use a little help in the amorality department.

Given that background, I do not have to prove my hydrocarbon street cred to anyone. I can look anyone from the industry in the eye and say, "Remember who you are talking to." My remarks to the knee-jerk critics of the energy industry are less charitable.

I'm Shocked, Shocked! To Find Speculation

This brings us to the question whether the price of crude oil is higher than it would be otherwise because of the activities of speculators in all forms. For reasons of popular psychology, an affirmative answer makes people feel better; it allows them to assign blame to economic forces beyond their control.

As an aside, the Commodity Futures Trading Commission's report for last week showed a decline of more than 20,000 contracts in non-commercial traders' net long position. As this makes about as much sense as saying inflation is under control, we have to look deeper, as we did just two weeks ago in a column of this very subject. The answer we can infer but not prove from the data is the role of the long-only commodity index fund is becoming increasingly import.

Before we delve into the matter further, let's stipulate that even the most egregious ramming of prices higher or lower by speculative traders provides a useful social service. Seriously: How else can we discover at what price consumers will start changing their behavior or producers will either expand or contract capacity depending on the direction of the price? And in that light, as we shall see below, we seem to be getting near at least a short-term price rejection for crude oil.

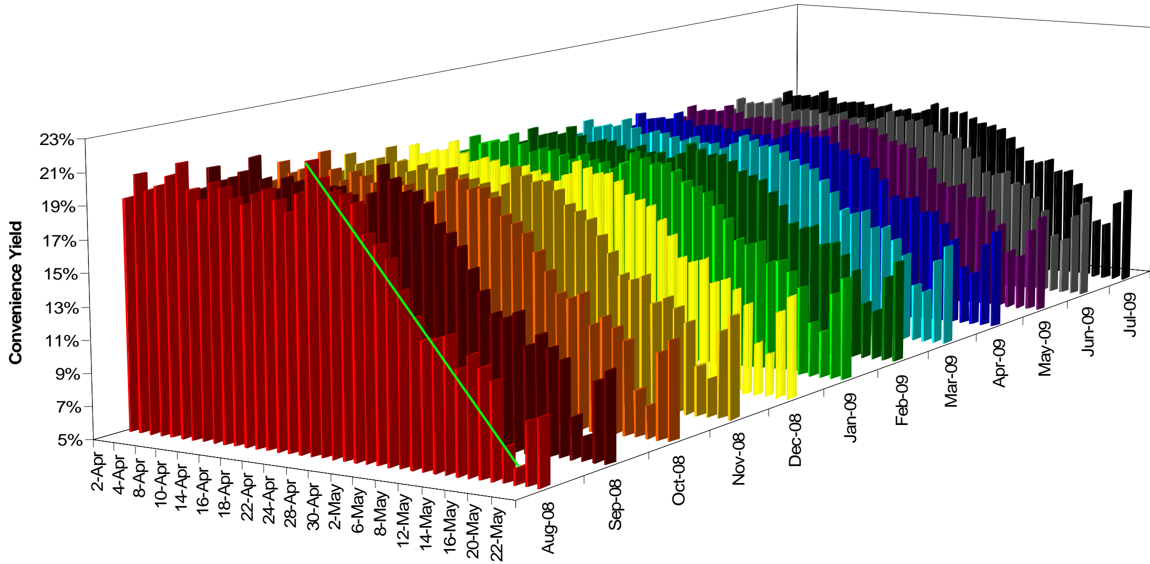
How Convenient

While traders tend to focus on price for obvious reasons, the forward curve of any physical commodity provides a great deal of information on availability of supplies, demand for price insurance and overall anxiety about a trend's sustainability. The crude oil forward curve, which had been trading in backwardation, or premium of the front-month futures to the deferred months, started to shift into a carry structure after April 25, 2008. I discussed a similar shift and the reasons behind it in April 2005 and later again in March 2006.

We can summarize the shape of a forward curve in the singular measure of "convenience yield." This can be thought of as the insurance costs buyers are willing to pay to avoid running out of physical inventories; it is also the price increase required to justify holding those inventories. The higher the convenience yield, the more anxious buyers are about the sustainability of a price trend. If convenience yields turn negative, a riskless cash-and-carry arbitrage is possible.

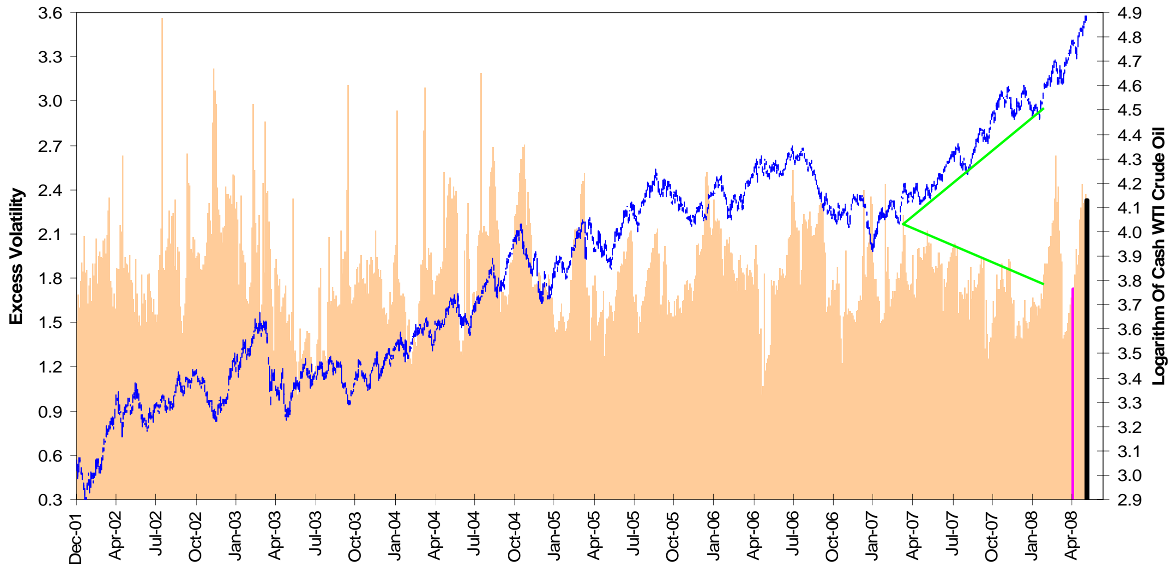
If we map the convenience yields between July and succeeding months of crude oil after the current leg of the rally began on April 2, 2008, we see a steady decline from April 25, 2008 down to Wednesday, May 21, 2008, marked with the green line. This indicated much of the rally was being propelled not by just-in-time buyers of the front month, but rather by buyers in the deferred months.

Crude Oil Convenience Yield During Parabolic Rally



On the surface, this is extremely bullish as it indicates acceptance of the rally. But if we map the ratio of implied volatility to actual high-low-close volatility, or excess volatility, against the price of West Texas Intermediate crude oil *plotted on a semilogarithmic scale* – yes, we have come to this – we see how this excess volatility which had been falling between August 2007 and February 2008 as price rose, marked with green trendlines, now is rising. The April 25 and May 23, 2008 values of excess volatility are marked with magenta and black columns, respectively.

Demand For Price Insurance Rising With Crude Oil Prices



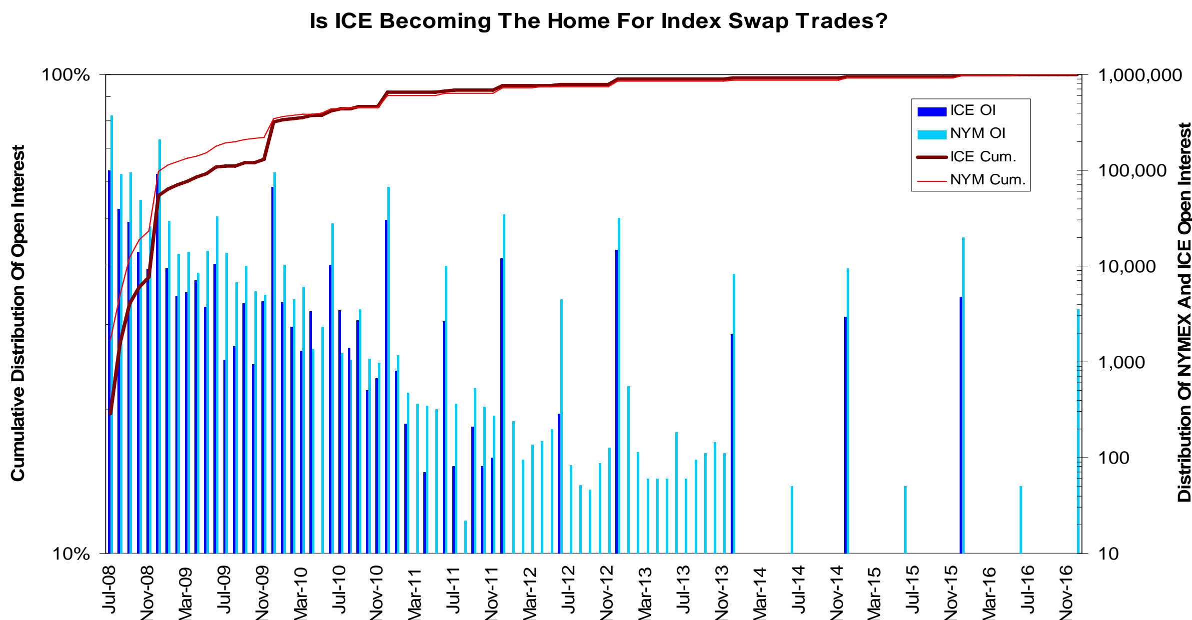
This sort of increase in excess volatility often signals an imminent short-term trend reversal. Given the extended technical state of the crude oil market, that reversal could be quite violent, if only temporary. Those old enough to remember the October 1987 stock market crash may wish to use it as an analogy.

From Washington With Love

Now let's turn to the question of the day, and that is whether the federal government should reclassify long-only commodity index funds, all of whom are one-way buy-and-roll speculators as opposed to the old-fashioned buy-and-sell speculators who offset each other, as speculators for purposes of imposing position limits.

The answer at first blush is, "Well, of course! Why should they drive prices higher by overwhelming the ability of natural shorts to sell against their position?" But then we should ask ourselves which road is paved with good intentions and why the Law of Unintended Consequences never is violated.

The open interest on the cash-settled crude oil contract on the Intercontinental Exchange is 37% of the NYMEX' physically delivered contract. If we map the cumulative distribution of open interest and its month-by-month distribution, we see how the NYMEX open interest is weighted more toward the first few contracts. The ICE's cumulative distribution catches up inside of three years, which suggests the contract is being used to price and hedge commodity index swaps. It cannot be used to facilitate physical commerce as it is cash-settled.



If Congress or the CFTC moves to restrict the index funds, they simply will move their activities to ICE or to other non-U.S. exchanges outside of the U.S. reporting system. The net result will be even less transparency than we have today.

This may be happening already. How else can we explain combination of the absurdity of last week's Commitments of Traders report, the observed changes in crude oil's forward curve and the reversal of a longstanding relationship between excess volatility and the price trend?

As this is a movie I have not seen yet, it has my full and complete attention.