Crude Oil Inventories Should Start Declining

One of the sillier pantomimes each week is the reaction to the Energy Information Administration's crude oil and refined product inventory data. A little back of the envelope arithmetic shows why. The U.S refines about 15 million barrels of crude oil per day, or about 105.2 million barrels per week. If inventories come in ±2 million barrels versus expectations, that works about to just over three hours' of refinery operations. In a business where refineries are shut down and restart on an irregular basis and where crude oil imports arrive in 900,000 barrel tankers, these fluctuations are minor.

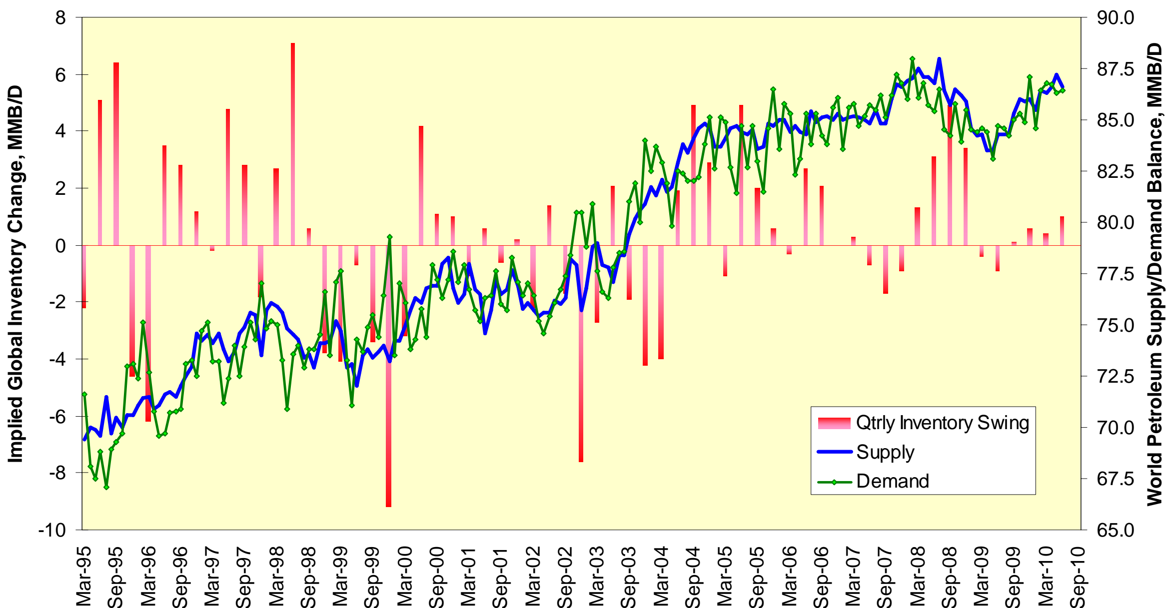
Prior to the widespread adoption of the contango storage trade (buy cash crude oil, place in storage, sell a futures contract at a price high enough to cover the costs of storage) by financial players, higher inventories might have meant a short-term excess of supply over demand and hence would be negative for prices in the short-term. This is no longer the case; high and rising inventories can occur during rising price periods so long as the barrels are being stored for financial purposes and not with the immediate intention of refining them.

As an aside, these inventories represent a do-it-yourself twist on Uncle Sam's Strategic Petroleum Reserve. The barrels placed in storage at or near refining centers are available quickly for processing in case of an emergency. They have been taken out of storage in the ground in a country that might not love us all that much and placed in storage here. The twist is financial players make money on this trade. How about Uncle Sam? If we go back to the inception of the SPR in 1981, the then-benchmark Arab Light grade of crude oil was priced at $34 per barrel. Had the Treasury bought back its debt with the money, the total return on the Merrill Lynch Government Master index would have been 1,075%. Arab Light would have to be trading at $365.50 per barrel today for the SPR to have made sense; it is trading at $78.60. Good trade, guys.

Going Forward

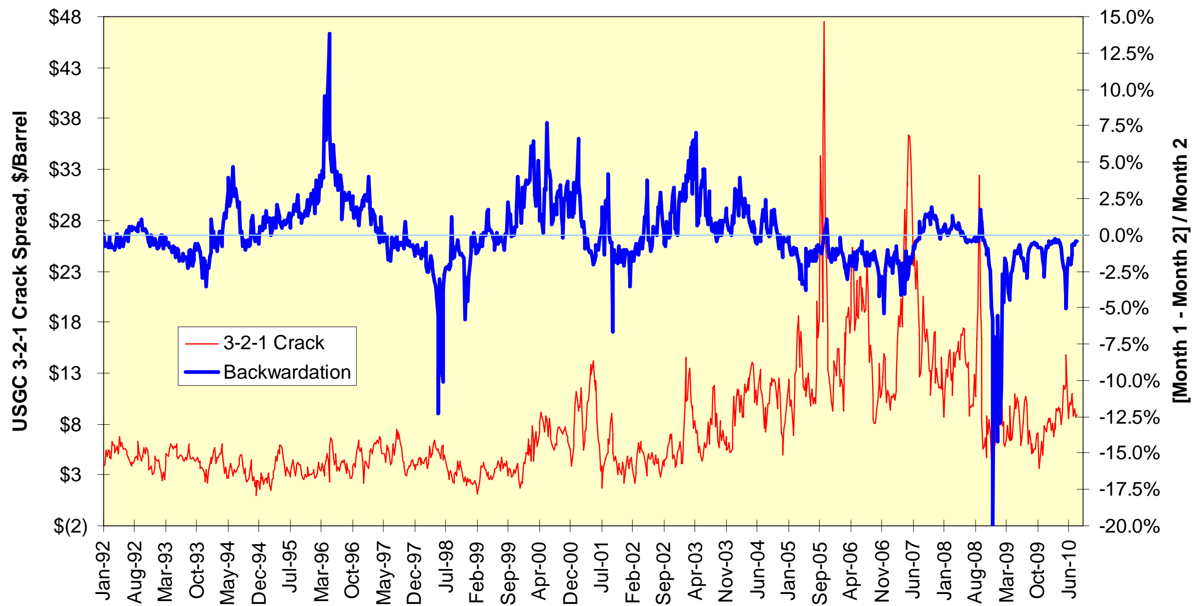
Global inventories have been building slightly since the fourth quarter of 2009 as supplies have increased and demand decreased. The storage trade bid put a floor underneath prices.

Global Petroleum Inventories Rebuilding



Based on what we see in the U.S. market, there is precious little incentive to build inventories much further. Not only has the forward curve of crude oil flattened to the point where future prices are not high enough to cover storage costs, but a cross-market hedge using refined products is not very attractive, either. Refining margins as measured by the 3-2-1 "crack" spread at the Gulf Coast (three barrels of crude oil processed into two of gasoline and one of heating oil) have been trending lower and do not compensate for the basis risk between New York Harbor-based futures contracts and crude oil at the Gulf Coast.

Modest Refining Margins And Low Carry Does Not Encourage Inventory Builds



We should expect refiners to start drawing down excess inventories. That will placed modest downward pressure on crude oil over the next 2-3 months, to be followed by a bid for more crude oil to replace those inventories late in the year and early in 2011.