Taking A Refined View Of Crude Oil

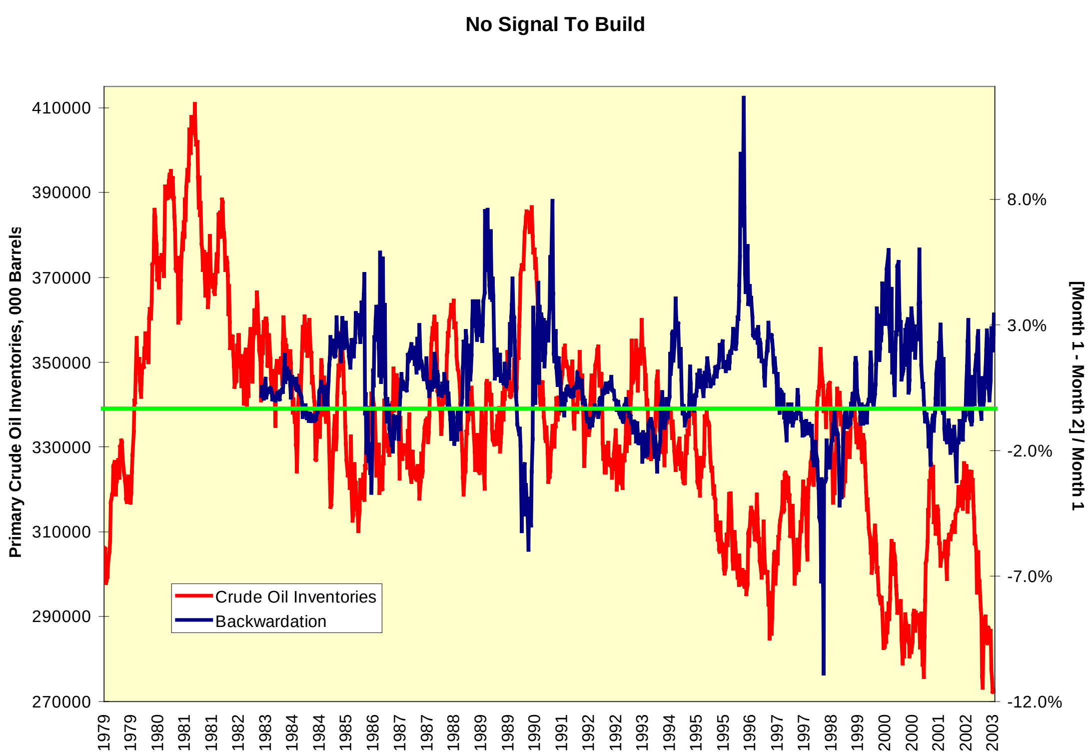
"War is cruelty, you cannot refine it"
-- William Tecumseh Sherman

General Sherman clearly was not talking about crude oil, which must be refined to be of any use at all except for the few specialized utility boilers capable of burning the foul-smelling, corrosive, gooey mixture of various hydrocarbons and residues directly.

As much as crude oil has rallied under the threat of war, the Venezuelan strike and low U.S. inventories, the useful products made from crude oil have rallied even more. The huge increases in refining margins, known more commonly as "crack spreads" from the catalytic splitting of those long and gooey hydrocarbons into molecules small enough to fuel your SUV, represent a strong fundamental development in the energy markets that won't be reversed quickly with the next headline on Iraq.

Bottom Of The Barrel

Let's take a look at those low U.S. crude oil inventories mentioned above. They are indeed lower than at any level prior to the Iran-Iraq War, just over 270 million barrels. Worse, the crude oil futures market is flashing disincentives for refiners to build inventories. The ideal time for a refiner to buy and store crude oil is when the futures market is in contango; or when the front-month future is trading at a discount to the second-month future. Why? A refiner can buy crude oil, store it, and sell the higher second-month futures as a hedge. This happened just prior to the Persian Gulf War in 1990 (Saddam: Give me a decade, and I'll give you a war) and in the weak commodities markets following the Asian financial crisis.

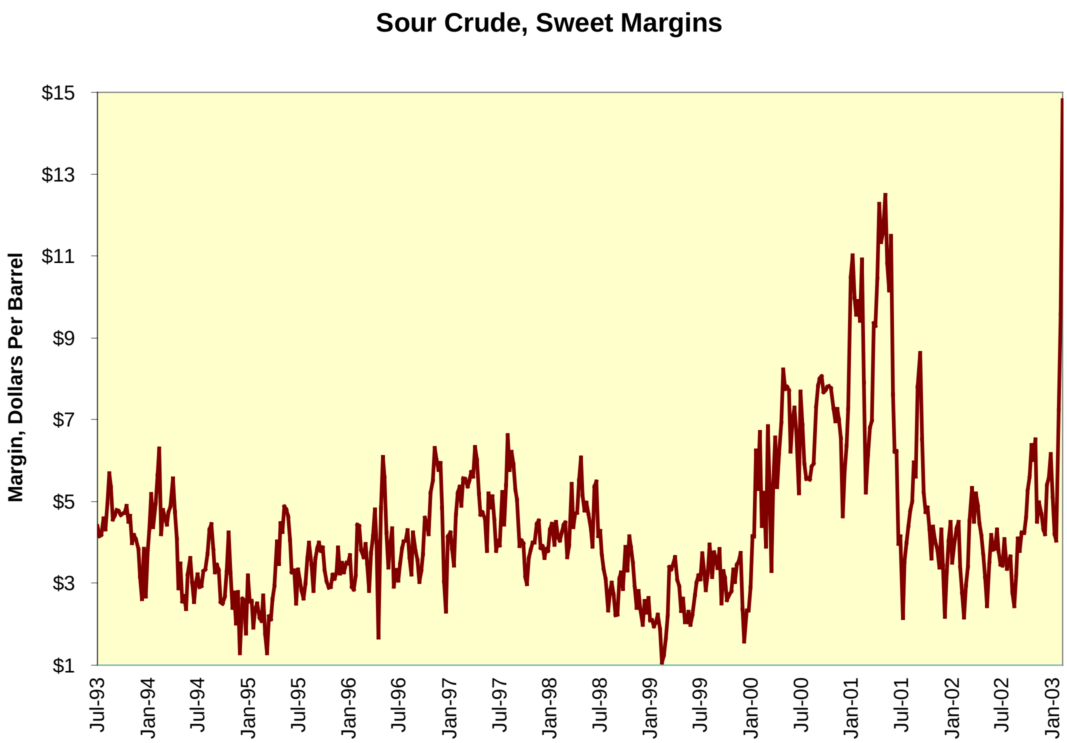


If the front-month future or the cash price of crude oil exceeds the second-month, a situation known as backwardation, the refiner is faced with a loss on the inventory-building trade. At present, both crude oil prices and backwardation levels are high. A refiner looking to build inventories with $35.10 March crude oil would be staring at a $0.85 per barrel hedging cost if he sold $34.25 April crude oil futures. Not a good trade in anyone's books, but this won't stop anyone from criticizing oil companies for their low inventory levels.

The Crack Spread

Normally when crude oil prices surge and backwardation is high, refiners' margins get compressed: They are faced with buying high-priced crude oil and turning it into products that must be sold in a competitive market. The present situation is unusual in that high price and backwardation are accompanied by strong crack spreads.

Let's take a look at a common crack spread, the sour crude 2/1/1 margin at the U.S. Gulf Coast. Here two barrels of high-sulfur West Texas sour crude oil are turned into one barrel of heating oil and one of unleaded gasoline. These Gulf Coast margins are more indicative of industry economics than the New York harbor prices traded on the New York Mercantile Exchange, but would you expect anything else from New Yorkers?

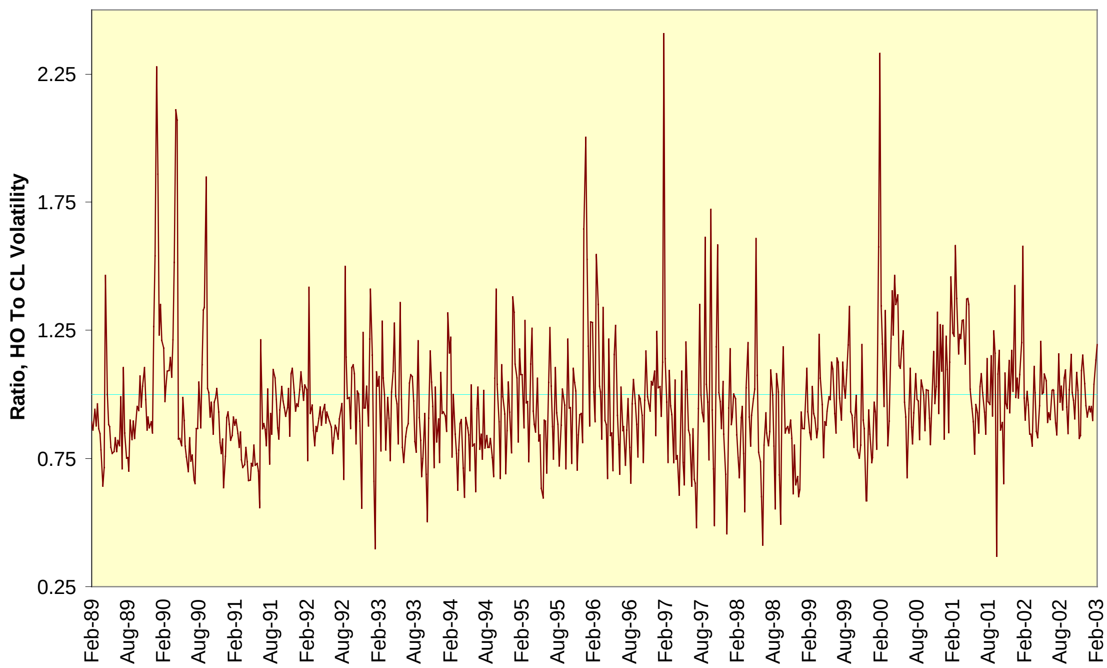


We are now approaching a $15 per barrel refining margin, which reflects the incremental effects of very cold winter weather and strained refinery operations with the factors mentioned above. So long as the weather stays cold, these margins can stay very high: At what price of heating oil or natural gas would you turn off your thermostat?

Moving beyond the obvious, heating oil is a different market for several other reasons. It comes from the same cut of the barrel as do diesel fuel and jet kerosene. Trucking firms and railroads have learned to hedge their fuel costs, in all or in part, as the consequences of failing to do so have been made apparent. The airlines, a sorry bunch if there ever was one, lack the financial wherewithal to hedge aggressively, and to make matters worse, they are in competition with the military for jet fuel. Guess who is going to win that one?

The combination of households wanting to stay warm and the transportation industry wanting to stay in business makes heating oil (HO) volatility far greater than crude oil (CL) volatility in the winter as a matter of course. Even with heating oil reaching a 23-year high this past week, the real anxiety explosion and capitulation by fuel buyers has not begun yet.

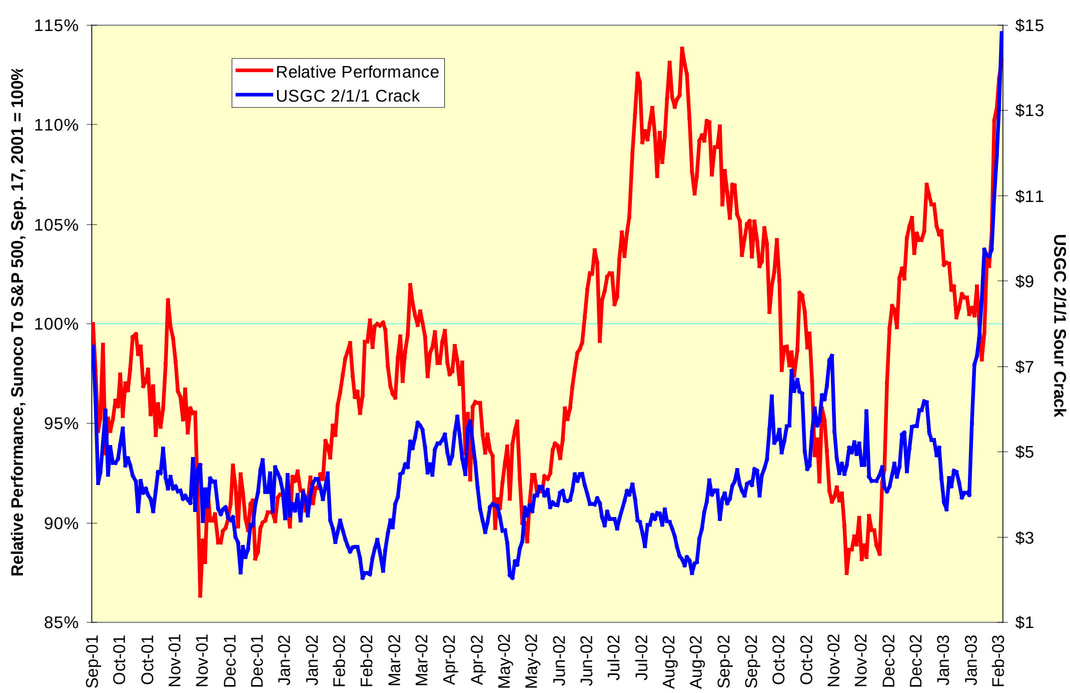
Ain't No Cure For The Wintertime Blues



Where Are The Refiners?

Despite the strong position refiners find themselves in at the moment - how many other businesses can sell all they can make at a full price these days? - the stock market has remained unimpressed until quite recently. The relative performance of Sunoco, for example, to the S&P 500 tracked the Gulf Coast crack spreads very poorly until the recent surge.

Sunoco Also Rises



It has taken this long, apparently, for Wall Street to catch up with refiners' strong position and to the fact that refinery economics might actually stay strong for a change. Ask yourself this: Do you want to spend the next twelve years of your life battling for all of the environmental permits required to put up a new refinery in the United States? That, my friends, is what we economists call a major league barrier to entry.

Since so much of what we do these days is connected to geopolitics and the prospects of war, I'll leave you with another quotation from General Sherman made in regard to the armchair warriors of his day:

"It is only those who have neither fired a shot nor heard the shrieks and groans of the wounded who cry aloud for blood, more vengeance, more desolation. War is hell."