

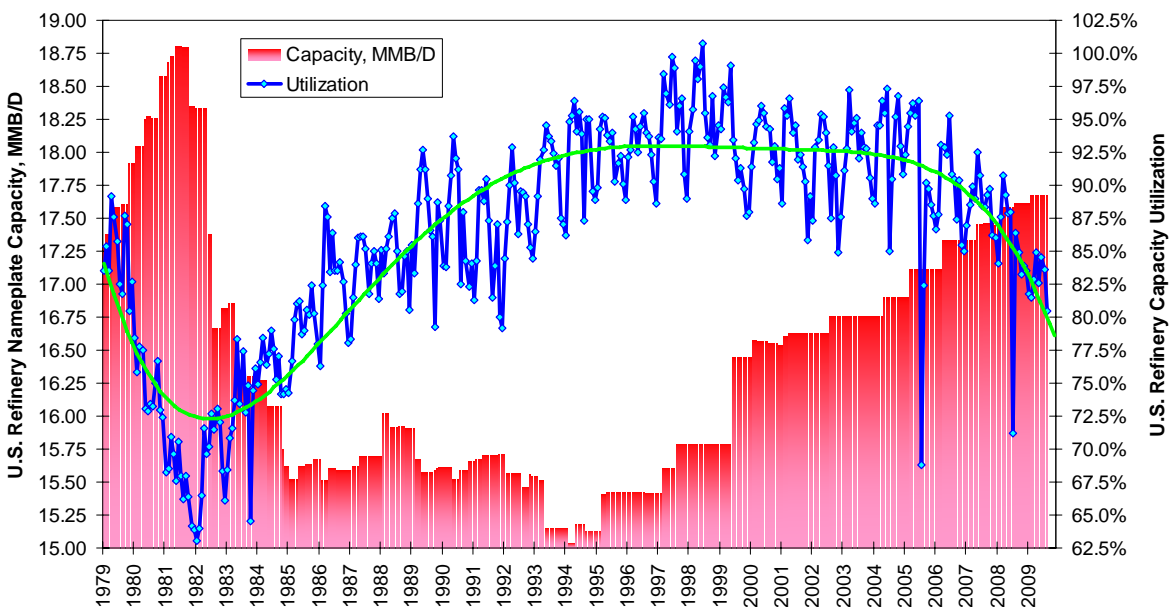
Refiners' Stocks Tell Energy Stories

How many times have you heard someone make a recommendation on energy stocks in general based on the price of crude oil? This is done regularly without regard as to what segment of the energy industry the company is involved in, such as exploration & production, drilling, equipment, integrated oil & gas or refining. The impact of various commodity prices on these different groups is surprisingly disparate (see "Energy Stock Movers and Shakers," June 2008), so why should we not expect the opposite to hold true, that differential stock market performance amongst the groups would contain usable trading and analytic information for the commodities and energy industry spreads?

The Refining Industry

Crude oil by itself is a surprisingly worthless commodity until it is refined and turned into the array of products and petrochemicals we take for granted in our daily lives. The history of the oil industry has seen refining shift from almost a necessary but mundane business to monetize crude oil production to a highly valuable scarce resource. The first oil shocks of the 1970s led to an unexpected decline in demand growth; the end of various government subsidies to protect domestic refiners' from then-higher world crude oil acquisition costs led to many smaller, older and less efficient plants being closed. Those later combined with environmental impediments to starting new or "greenfield" refineries as opposed to expansion of existing operations such as the Clean Air Act to lead to a massive contraction in U.S. nameplate refining capacity.

Refineries Are Decreasingly Scarce Assets



By the mid-1990s, anyone who owned a refinery owned a processing chokepoint in the industry. Refining margins, also known as crack spreads, regularly expanded and reached previously unimaginable peaks by 2004-2005. The economics were enhanced further by a series of hurricanes in 2004-2005 such as Ivan and the infamous Katrina and in 2008 such as Ike; the effects of these hurricanes can be seen in the long-term history of refinery capacity utilization.

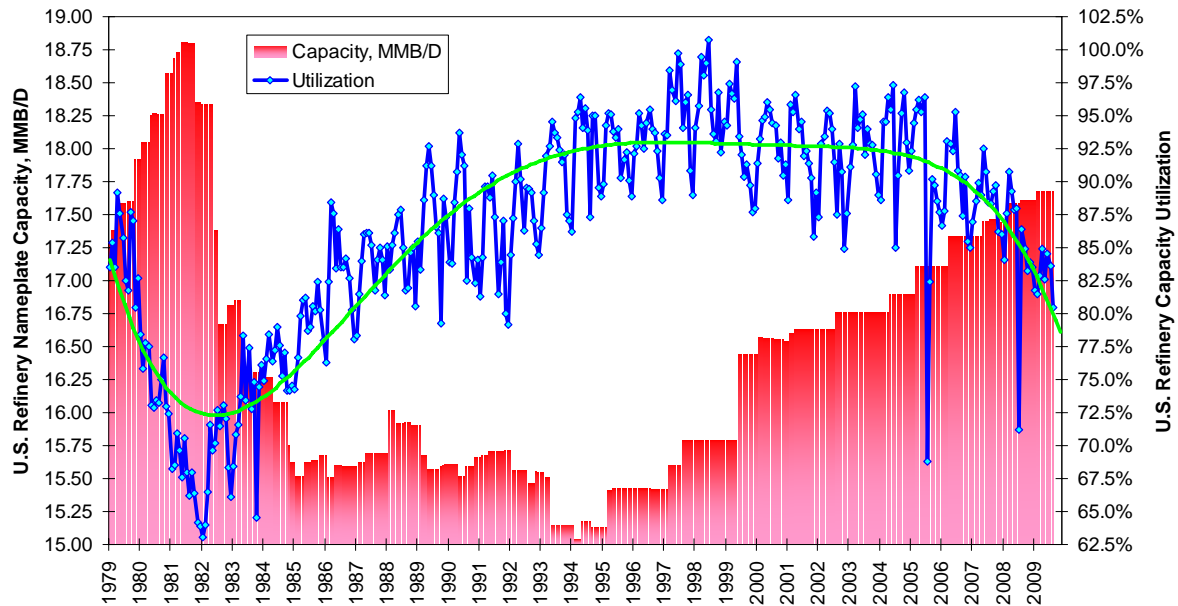
Refiners responded rationally to the expansion of margins; they started adding capacity in the late 1990s and have continued to do so for 15 years. As a result, capacity utilization rates are on a trend-curve decline for the first time since the start of the 1980s when excess capacity was being closed in chunks.

Relative Performance Of Refining Stocks

Now let's introduce the concept of the relative performance of refining stocks by creating an index of the S&P 1500 refining index against the S&P 1500 Supercomposite. The refineries used in the index are Valero, Sunoco, Tesoro, Frontier, World Fuel Services and Holly.

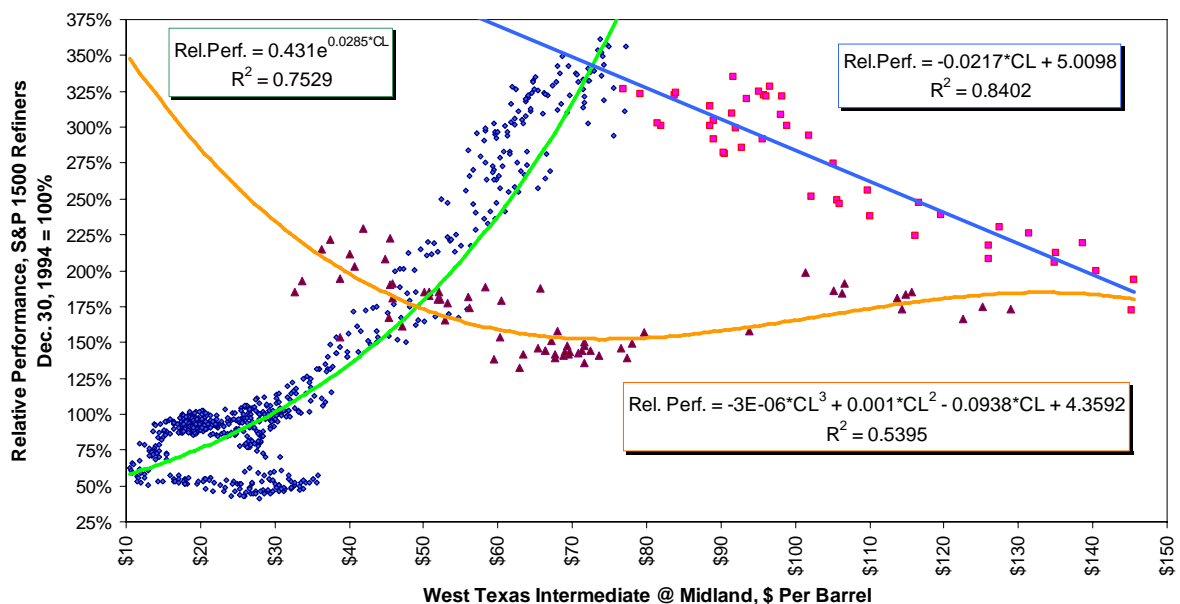
The golden age for this group clearly was 2000-2005; this was the period wherein utilization rates remained high and a 3-2-1 crack spread (three barrels of crude oil into two of gasoline and one of heating oil) at the U.S. Gulf Coast was rising exponentially. Here's some casual business advice: Find an industry whose margins are rising exponentially and whose demand remains stable, and you will make money. Statistically, the refiners' relative performance led the 3-2-1 cracks by 39 weeks on average. Restated, stock market investors were able to assess movements in the crack spread nine months in advance on average.

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However, the relationship was not as simple as a nine-month lead time. It turns out August 2007 was a key date in the history of the oil business; this is when the price of U.S. West Texas Intermediate crude oil began its epic run from \$70 to \$145 by July 2008. If we divide the available history into the pre-August 2007 period, the August 2007 – July 2008 period (see “Crude Oil Poor Financial Market Lubricant,” September 2009, on this period) and the post-July 2008 period and map the relative performance measure against the price of crude oil, three distinct regimes emerge.

Refiners' Performance As A Function Of Crude Oil Changed Twice After August 2007



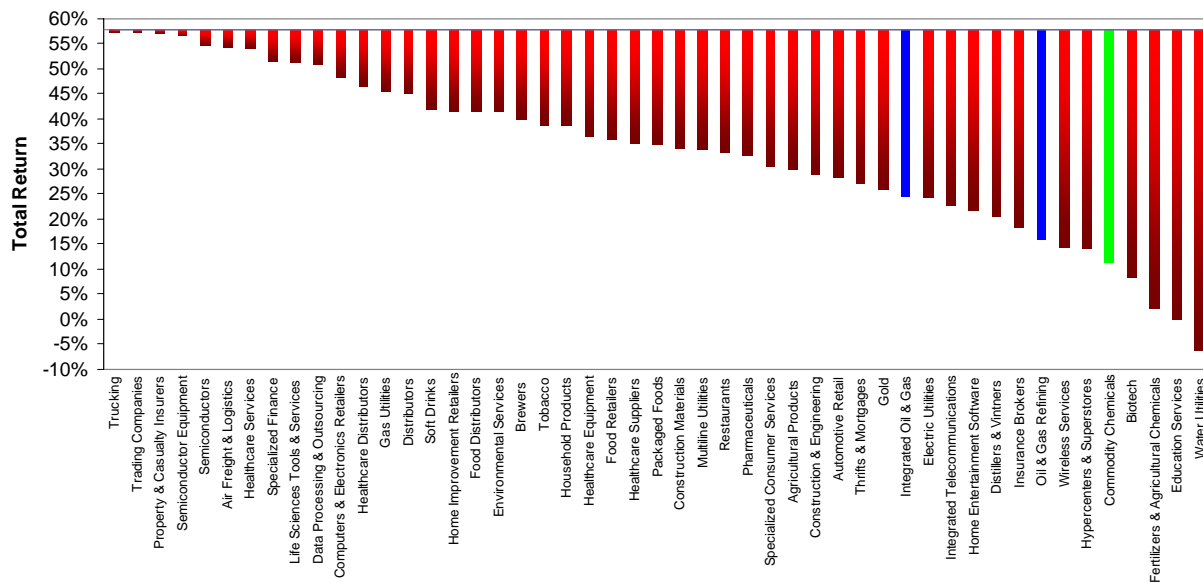
During the first regime (blue markers), relative performance increased exponentially as a function of crude oil prices; this was contrary to previous decades' worth of experience wherein higher crude oil feedstock costs led to compressed refining margins. During the second regime (magenta markers), relative performance became a linearly negative function of crude oil prices. During the third regime, the relationship deteriorated to a weak cubic function wherein relative performance expanded only at the trough of the late 2008 collapse in crude oil prices. This can be interpreted as saying the stock market foresees modes downward pressure on refining margins. Overall, the moral of this story is clear: Any blanket statements regarding a fixed relationship between refining stocks and the price of crude oil should be dismissed out of hand.

Ranking Performance

We can see in hindsight just how closely the prices of various physical commodities were linked to the credit crunch and financial shocks of late 2008 and early 2009. While crude oil prices bottomed in late December 2008, the stock market bottomed in early March 2009. If we measure the relative performance of various industry groups in the S&P 1500 from that March low onward, the rank of the oil-related groups tells an interesting story.

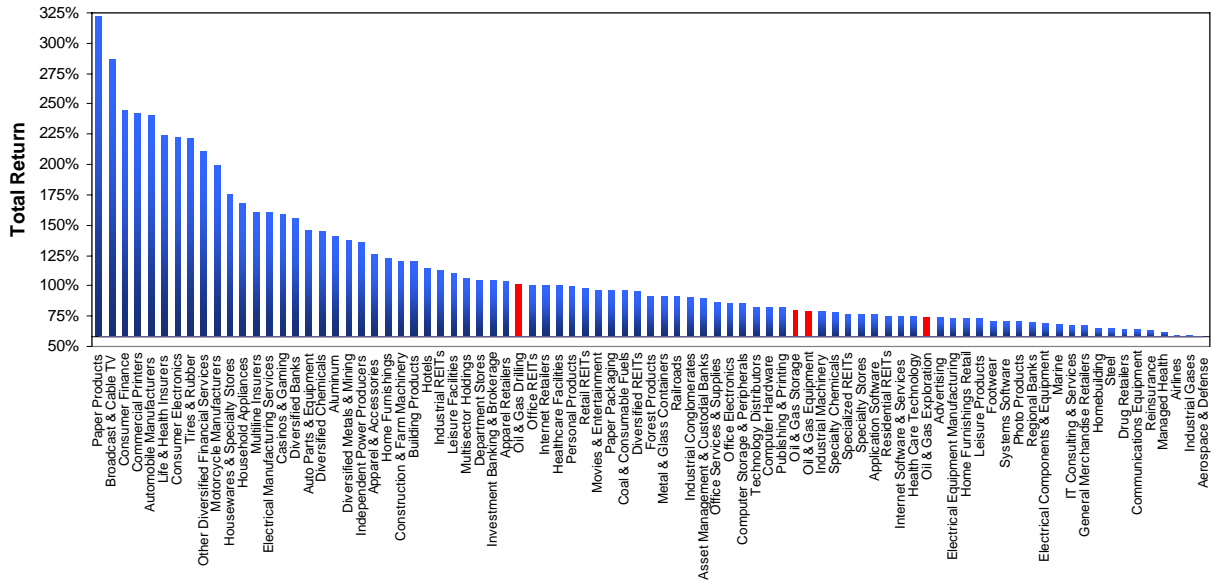
First, let's rank those groups that underperformed the Supercomposite. Both refining and integrated oil & gas, marked in blue columns, are on this list. This must come as news to those financial pundits who never stop recommending ExxonMobil or Chevron as a way of playing crude oil prices. The integrated oils were hurt by both their refining operations and by their exposure to petrochemicals; the commodity chemical industry, highlighted in green, ranked near the bottom of all industry groups.

Total Return Of S&P Supercomposite Industry Groups After March 9, 2009:
Groups Performing Worse Than Index



If we rank the groups that outperformed the Supercomposite over this period, four oil-related groups are included and marked in red. All of them are in the middle of the pack, literally and figuratively. Drillers had the best performance, followed in relative order by storage, equipment and exploration & production.

Total Return Of S&P Supercomposite Industry Groups After March 9, 2009:
Groups Performing Better Than Index



The message of the refining industry's relative performance is easy to read: The stock market does not believe the high-margin days that ended in 2005 are going to return any time soon. If so, gasoline prices are unlikely to exceed the rate of growth in crude oil prices, which will provide some measure of relief for consumer spending and visible consumer inflation. This is barring, of course, another supply shock such as those produced by the 2004-2005 hurricanes or a rapid increase in global demand.

If you start to see refining stocks outperform the broad market, you might want to overweight energy commodities and underweight consumer-related equities in your investments. This message may not be as easy to understand as the one given by the television carnival barkers, but unlike their bloviating, this one will be correct.