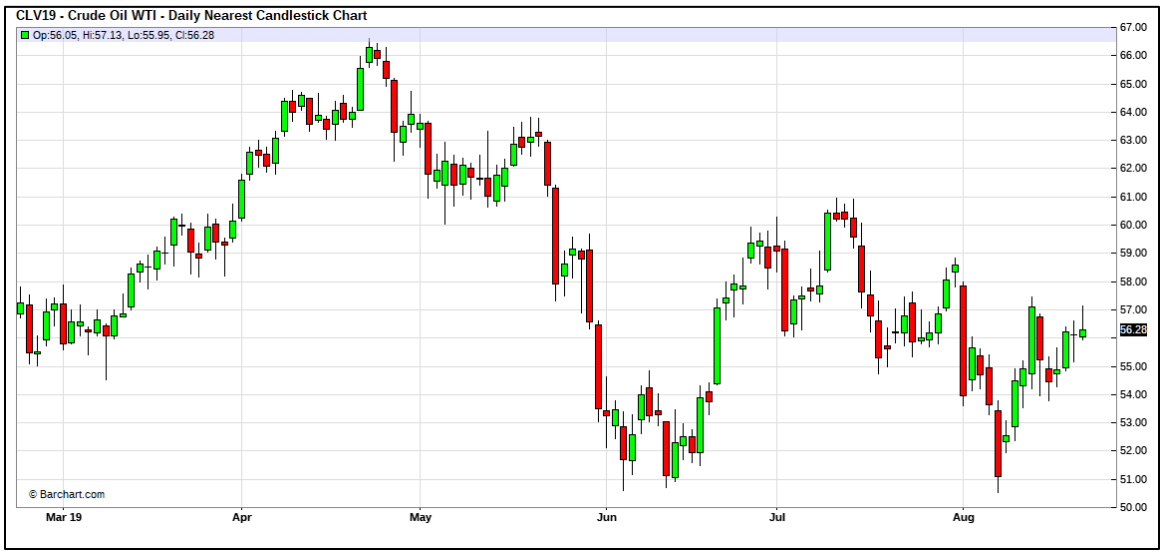
Quarterly Energy Comment

By Bill O'Grady

August 27, 2019

The Oil Market

Since June, oil prices have held within a range of $50 to $60 per barrel.

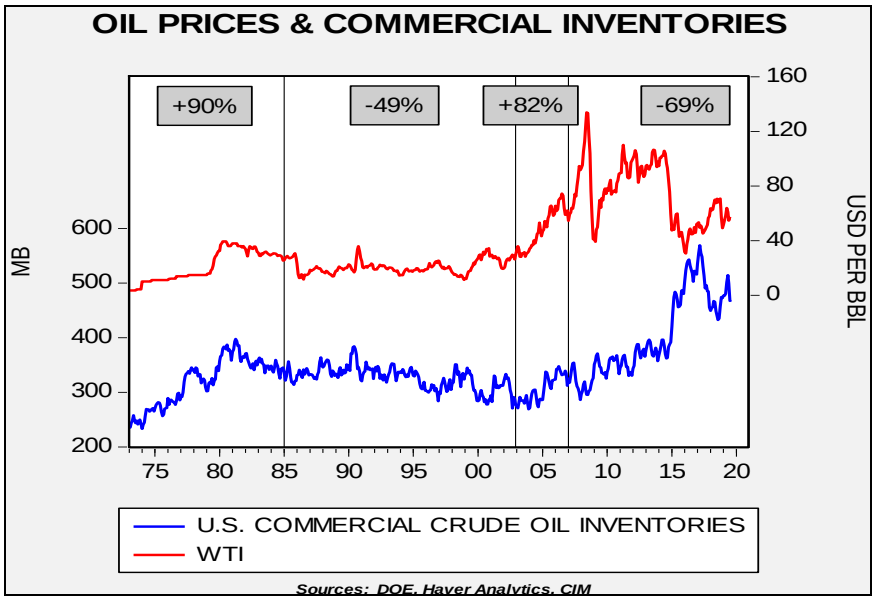


(Source: Barchart.com)

After a sharp decline in prices from late May into early June, due in part to a contra-seasonal build in inventories, inventories fell and oil prices rebounded. Rising tensions with Iran added to the lift in prices. Since then, we have seen a retest of the lower end of the range and another bounce. Unfortunately, we are heading into a weak demand period for crude oil as the summer vacation season comes to a close. Therefore, the lower support level may get tested again.

A Tale of Two Variables

Although there are several variables that affect the price of oil, within the business cycle the two we focus on are the dollar and commercial crude oil inventories. As with many situations, there are data accommodations that are necessary. Oil inventories can be problematic because, throughout history, the correlation between stockpiles and prices can flip.

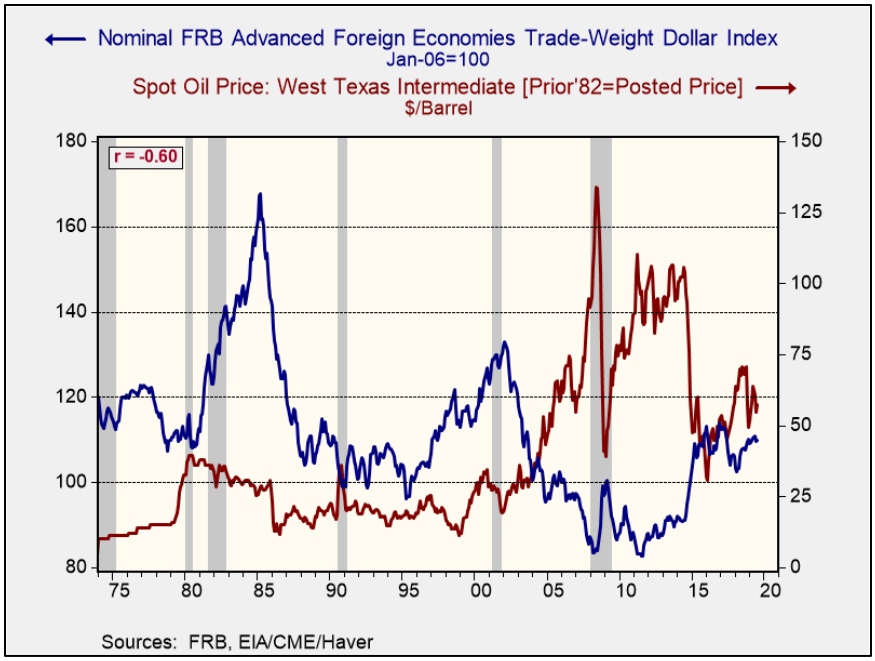


Under normal circumstances, inventory levels represent the residual of supply and consumption. Thus, rising inventory levels suggest an excess of supply whereas falling stockpiles suggest less supply. And so, most of the time, there is a negative correlation between inventories and price. However, as the above chart shows, there are periods where the relationship can be positive. In those periods, consumers perceive scarcity and thus rising inventories are an indication of increasing demand.

In terms of determining future correlations between oil and stockpiles, we generally focus on two factors. First, geopolitical events tend to bring positive correlations. The period from 1973 to 1985 was characterized by the Arab Oil Embargo and the Iran-Iraq War. Fears of shortages dominated that period and consumers tended to hoard oil, driving up the price. Second are unusual sources of demand. The shorter event in the last decade was driven by an overall bull market in commodities, caused by extraordinary demand from China. This demand raised concerns about scarcity and led to a positive correlation between oil and inventories. In general, the psychological fear of scarcity leads to a positive correlation between oil prices and inventories.

One way to deal with this issue from a modeling standpoint is to shorten the period analyzed, recognizing that one must intuit the correlation going forward. Currently, we are using models that begin in 2012, which is in a period of negative correlation and avoids the tumult of the Great Financial Crisis.

The dollar's impact on oil prices is generally negative as well. Since oil is priced in dollars, an appreciating greenback increases the price of oil for non-dollar buyers. This increase in price tends to dampen demand.



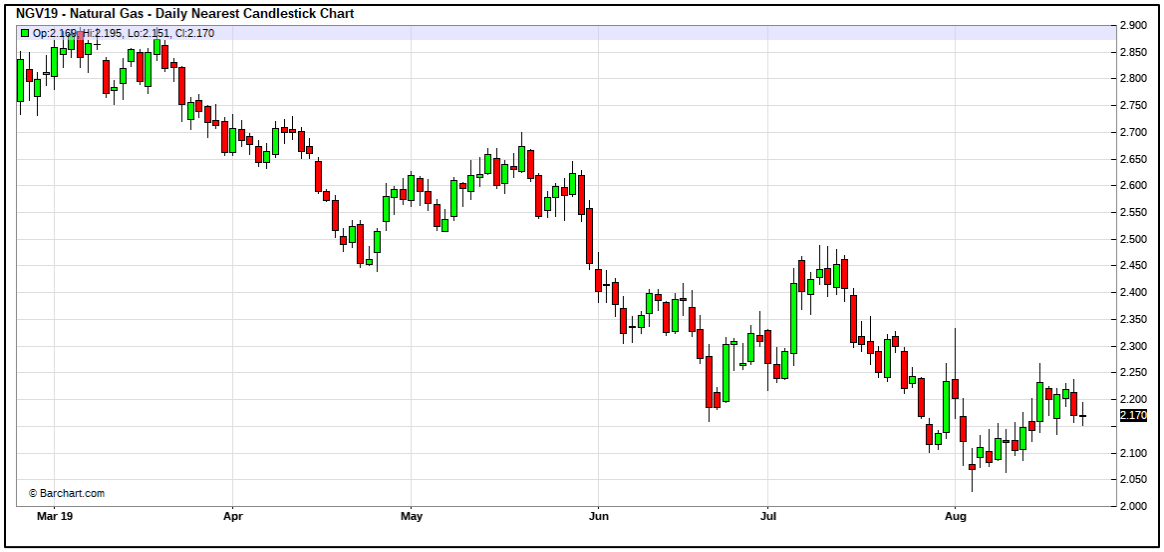
Currently, our oil inventory model puts fair value at $61.71. The exchange rate model (which uses the EUR as the dollar proxy) puts fair value at $50.45. In the coming weeks, oil inventories normally rise due to refinery maintenance but an $11 per barrel spread is rather wide. In general, the currency has had a more significant impact on price than inventories. Although our dollar analysis suggests the greenback is richly valued, the tariff war is putting upward pressure on the dollar and that will have a negative effect on oil prices going forward.

Oil Summary

The current market is mostly fairly valued, in our view, but we would expect a bearish bias going forward. At the same time, there is notable geopolitical risk in the Middle East at present and the potential for a bullish surprise is elevated. Thus, a precautionary allocation to the commodity could be justified but the basic fundamental factors would suggest a neutral position.

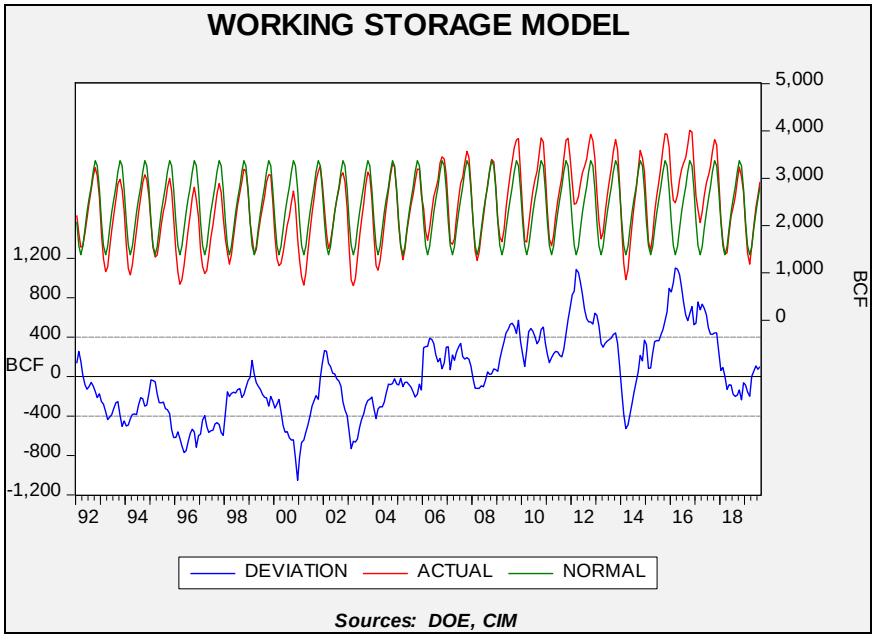
Natural Gas

Natural gas prices have been in a steady downward cascade since March.



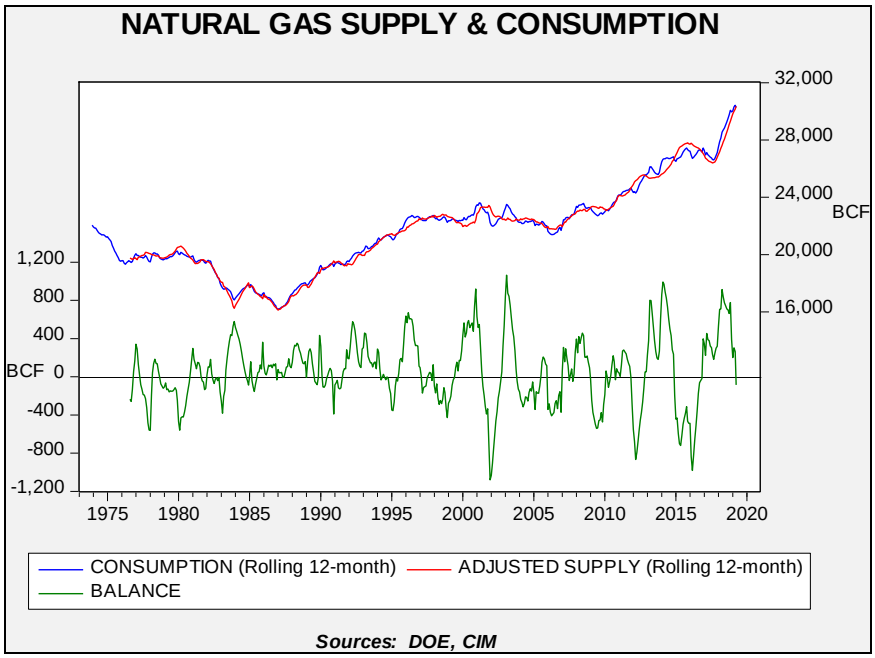
(Source: Barchart.com)

This winter was cold enough to reduce the inventory overhang that had plagued the market for the past few years. But, despite a rather warm summer, we have seen inventories rise back to just above the storage model's normal level.

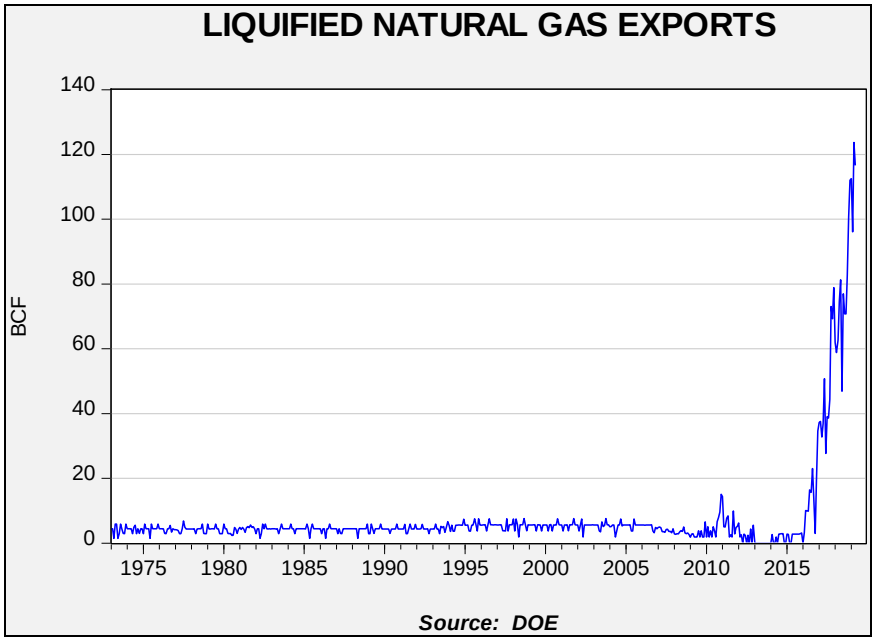


Based on inventory levels and seasonality, natural gas prices should be higher; our model puts fair value around $2.90 per MMBTU. But, weighing on the market is the surge in production due to associated gas coming from record-high oil production.[1]

[1] "Associated gas" is the natural gas that is usually produced when drilling for oil.



This chart shows the rolling 12-month totals for supply and consumption. A negative number implies that supply exceeds consumption. As the chart shows, there has been a surge in both supply and consumption, but price action suggests the latter can only occur at lower prices. Production, due to its relation to oil production, means that supply is price-insensitive. So, overall, prices will likely remain soft until the excess production can be exported. The chart below shows the growth in liquified natural gas exports.



These exports are growing rapidly and new facilities are being built. However, it will still take time for LNG to boost prices.

Although natural gas prices appear undervalued relative to inventory levels, the continued expansion of oil production has led to increases in associated gas. Fears of continued expansion in oil output are acting to dampen natural gas prices. As winter approaches, we may see prices rebound but, until November, the outlook for natural gas prices is steady at best.

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