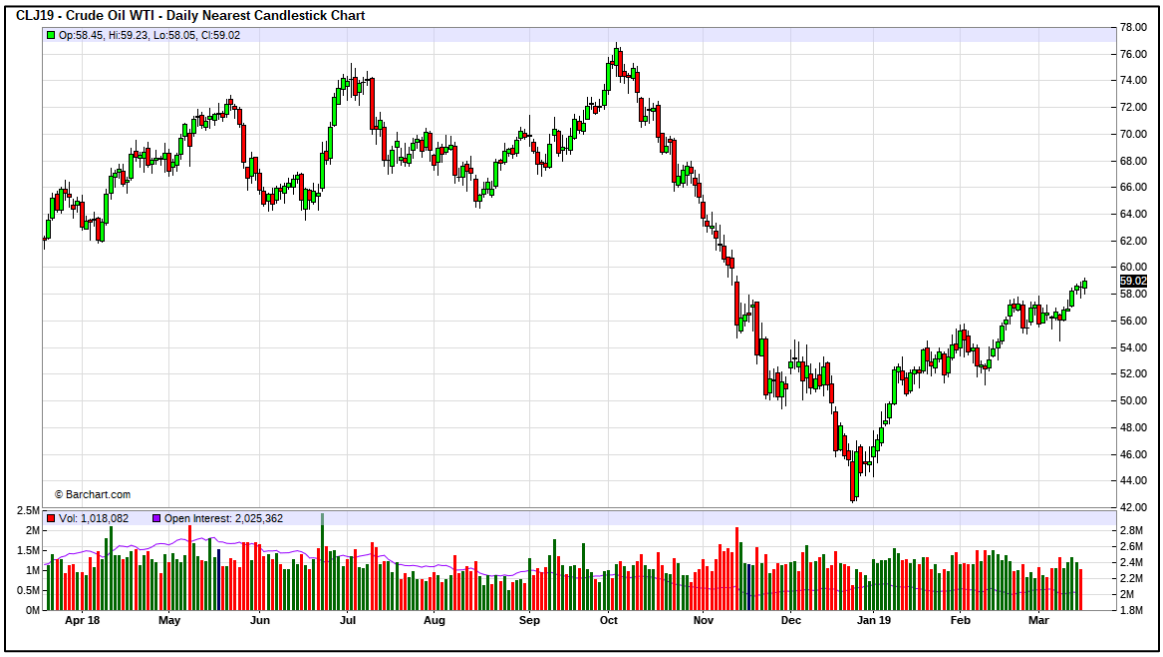
Quarterly Energy Comment

By Bill O'Grady

March 21, 2019

The Market

Oil prices have been volatile over the past few months.

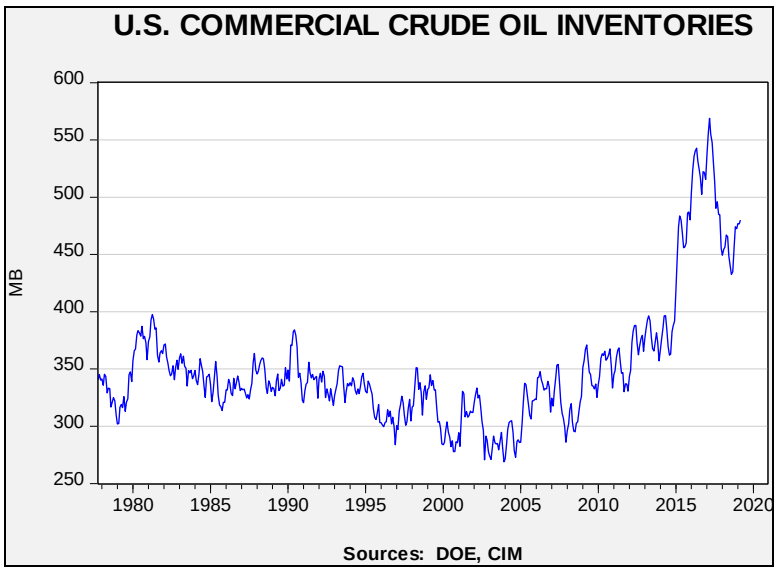


(Source: Barchart.com)

In October, OPEC producers increased output in anticipation of U.S. sanctions on Iran. However, the Trump administration granted more waivers for Iranian exports than anticipated, leading to more oil supply. As the above chart shows, prices plunged, falling from $78 per barrel to near $42 per barrel. OPEC + Russia have since taken barrels off the market in a bid to boost prices. Thus far, they have had some success in this effort but, clearly, we have not seen a full recovery in prices.

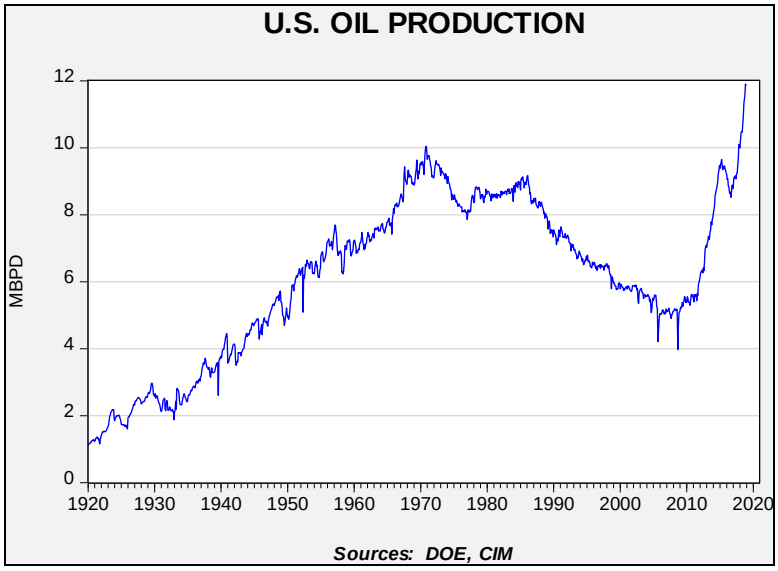
Prices and Inventories

Inventory levels remain below their 2017 peak but are still above what we would consider normal levels, below 400 mb. Oil inventories rose sharply in 2015 as U.S. output rose due to shale production. Unfortunately, the U.S. had regulations in place that limited oil exports to Canada and Mexico. As these regulations were lifted, allowing for expanded oil exports, stockpiles have declined.

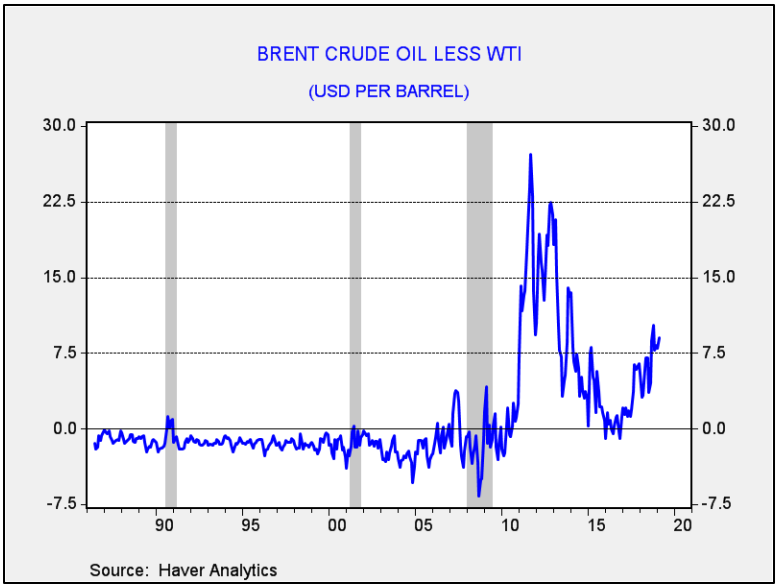


The Oil Export Revolution

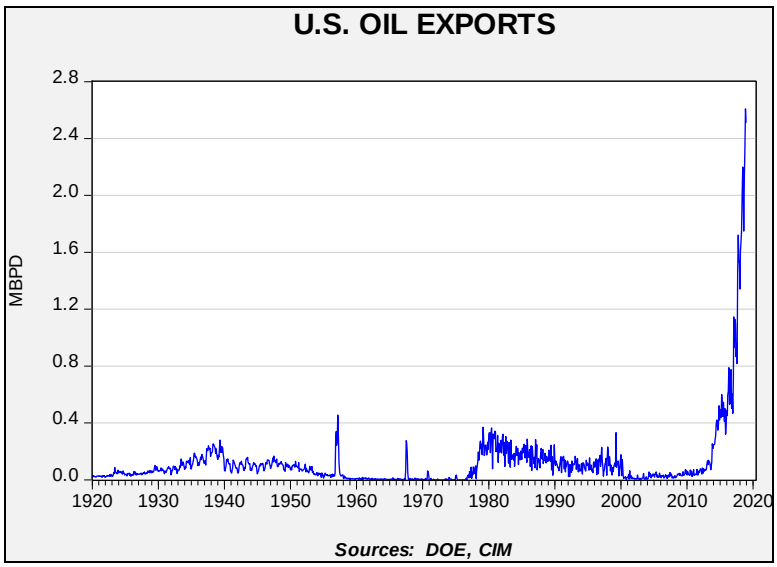
The growth of oil exports is closely tied to the rise in oil production.



U.S. oil production is just above 12.0 mbpd, a new record. When production began to rise in 2011, the increased supply had nowhere to go. Initially, refiners substituted domestic supply for imports but, by 2015, increased production piled into storage. This led to a massive widening of the spread between domestic and foreign oil prices. As the chart below shows, the Brent/WTI spread widened out to a peak of $27.22 per barrel before correcting. However, it has been widening recently.



The chart below shows U.S. oil exports.

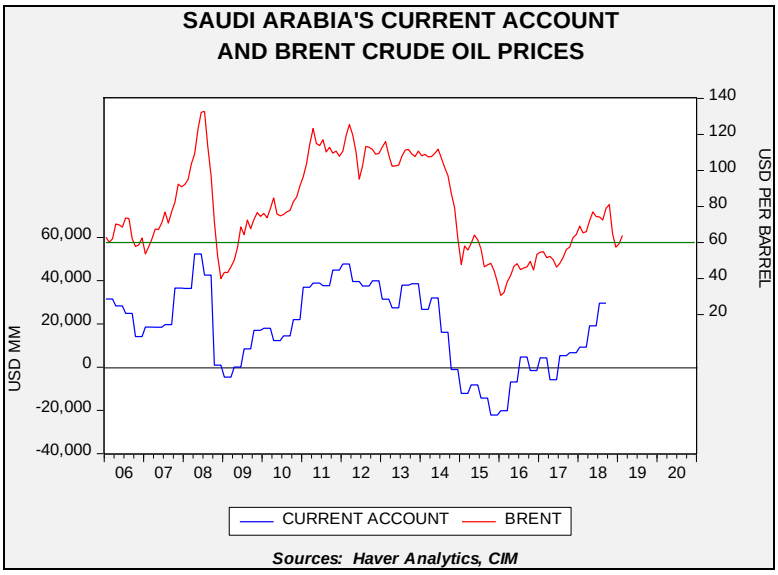


Clearly, exports are rising at a significant rate. Although the U.S. was a major oil exporter during the 1930s,[1] its export presence fell after 1950 as Middle East production rose. However, on the above chart, we note the two spikes seen in 1956-57 and 1967. The first represents the Suez Crisis, when Israel, France and Britain conspired to retake control of the Suez Canal from Nasser's Egypt. The British and/or French had controlled the canal since it was built in 1869, but Nasser nationalized the canal in late July 1956. During the Suez Crisis, the canal was closed for a time; the U.S., acting as the world's swing producer, boosted production and exports. The second spike in 1967 was a reaction to the Arab oil embargo implemented in response to the 1967 Six-Day War. In

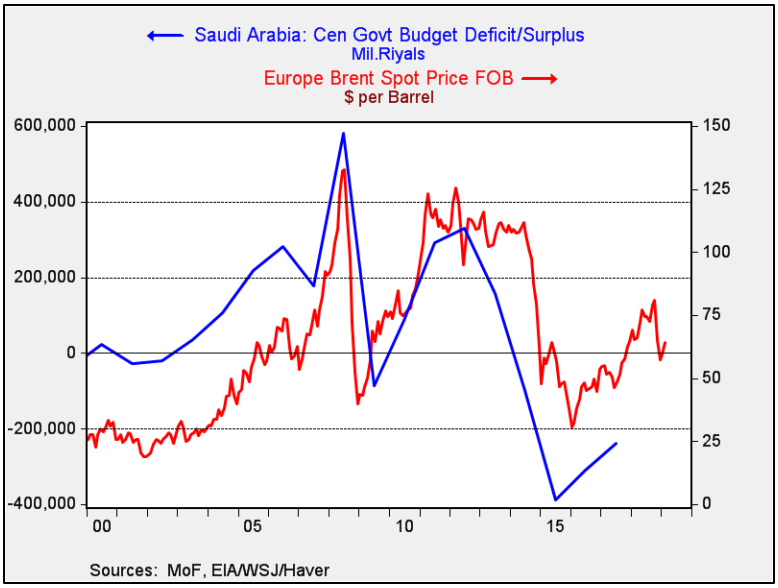
[1] The U.S. produced nearly 60% of global output in 1935. See: https://wayback.archive-it.org/6321/20160901222530/http://digital.library.northwestern.edu/league/le0277ah.pdf

both cases, the U.S. had enough excess productive capacity to prevent a major increase in oil prices. However, when the second Arab oil embargo was enforced during the 1973 Yom Kippur War, the U.S. was unable to respond because its oil industry was producing at full capacity. From that point forward, OPEC has played the role of swing producer, with Saudi Arabia being the most important producer in that market-stabilizing role.

The continued rise of U.S. exports is a growing threat to OPEC's swing producer status. The cartel has faced similar challenges in the past. In the mid-1980s, widespread cheating by OPEC producers, coupled with the rise of North Sea production, prompted Saudi Arabia to flood the market in order to take down oil prices and bring order to the market. Something similar occurred in the late 1990s when the Saudis were losing market share to Venezuela. Simply put, the kingdom's usual reaction to these sorts of supply threats is to trigger a massive decline in oil prices. However, this time around, the kingdom may not have the ability to suffer a major decline in oil prices and fund the market reforms it is undertaking.



This chart shows Saudi Arabia's current account (in USD) compared to Brent crude oil prices. There is a line on the chart depicting $60 per barrel. Note that the Saudi current account tends to fall into deficit when Brent prices fall below $60 per barrel. The fiscal account has a similar look.



Saudi Arabia's foreign reserves (excluding gold) can currently purchase about 11 months of imports. Of course, this doesn't fully indicate the kingdom's buying power. It could tap international markets to borrow, for example. But, this analysis suggests that the kingdom needs Brent crude prices in excess of $60 per barrel in order to achieve a positive current account and a manageable fiscal budget. We expect the kingdom to defend this price level until U.S. exports expand to the point where its production cuts become excessive. It does not appear we are at that level quite yet.

Oil Summary

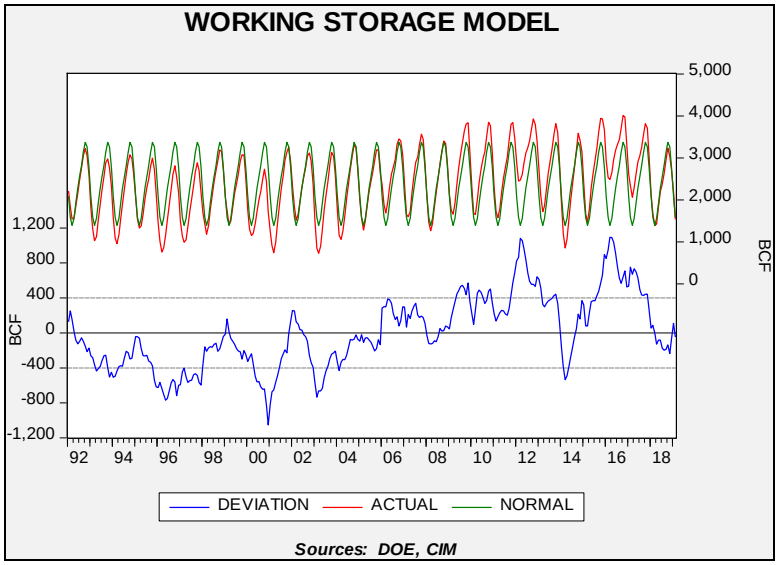
The current market is mostly fairly valued, in our view. U.S. inventory levels are mostly steady in a period that traditionally has led to higher storage levels, mostly due to oil exports. On the other hand, a major bull market in crude oil will likely need a weaker dollar for support. We look for WTI to breach $60 in the coming weeks, assuming the Saudis continue to keep production cuts in place.

Natural Gas

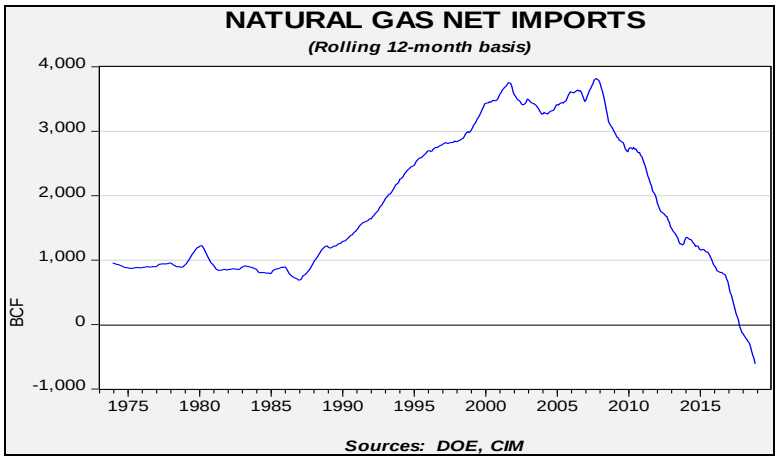
Natural gas prices had a very strong rally in early winter only to fall to earth by mid-February. This price action is due to the onset of cold weather. The U.S. had a deep cold snap unusually early in November. Because utility managers are afraid to meet the jump in demand by pulling inventory in the early part of the heating season, they instead try to meet the demand from current production. This action of preserving stockpiles drives up the price. Cold weather later in the winter is not nearly as bullish unless inventories are depleted.

(Source: Barchart.com)

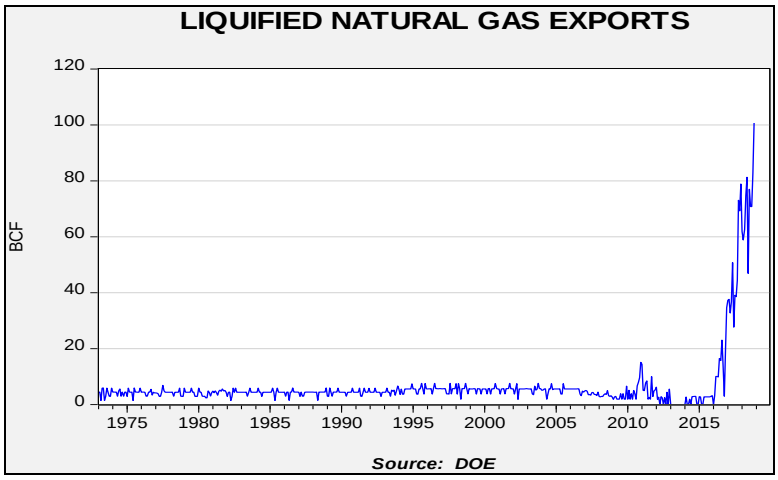
This winter has left inventories roughly normal after several years of higher than normal stockpiles.



Perhaps the most amazing change in the U.S. natural gas market is that we are now a net exporter.



LNG represents about one-third of total gross exports but is growing rapidly. With new facilities coming on line, this area should continue to expand.



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 is acting to dampen natural gas prices. If LNG acts as a "value" for this associated production, then natural gas prices could rise to near $4.000 per MMBTU in the summer, especially during periods of hot weather.

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