Third-Quarter U.S. Crude Review and Outlook

Higher prices, production, and exports.

Morningstar Commodities Research
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Sandy Fielden
Director, Oil and Products Research
+1 512 431-8044
sandy.fielden@morningstar.com

Data Sources for This Publication
U.S. Energy Information Administration
CME Group
To discover more about the data sources used, click here.

Tighter Supply in Face of Iran Sanctions

December ICE Brent expired at $82.72/barrel on Sept. 28, ending a strong quarter that saw the prompt North Sea benchmark up 7% from the start of July and 24% since the start of the year. At $73.25/barrel, U.S. equivalent benchmark West Texas Intermediate Cushing was down $0.69/barrel during the third quarter but up 21% since the start of 2018. Last week, the threat of tighter world crude supplies in the face of impending U.S. sanctions on Iran in November combined with a lackluster response by OPEC producers to push the market up another 2% amid renewed talk of $100/barrel crude by year-end. This note reviews U.S. crude prices, production, and exports during the first three quarters of 2018 and provides our outlook for the fourth quarter and 2019.

Price and Production

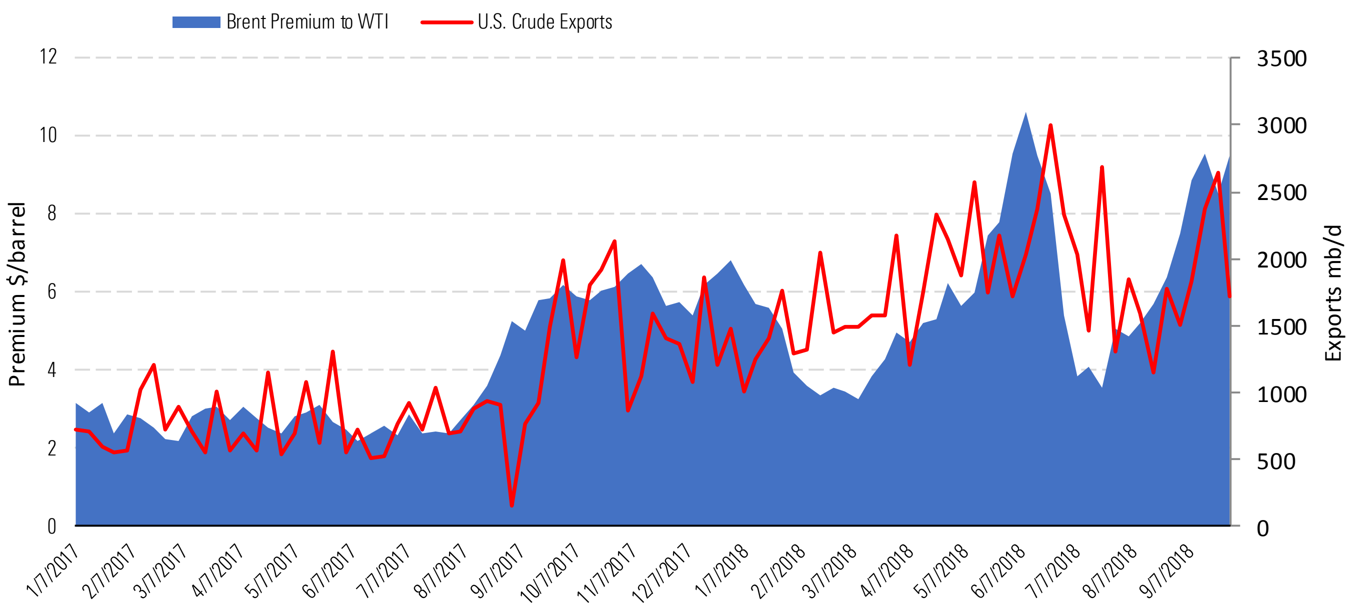
Higher crude prices this year have encouraged record domestic production, up by over 900 thousand barrels/day to just under 11 million barrels/day between December 2017 and July 2018, according to the Energy Information Administration's latest monthly data, and running at 11.1 mmb/d in September, according to weekly estimates. The West Texas Permian Basin, where output jumped by 590 mb/d between December 2017 and September 2018 according to EIA's drilling productivity report, leads production gains, but growth has also been significant this year in the South Texas Eagle Ford and North Dakota Bakken formations. The price outlook remains strong for continued production growth over the next two years. Forward curve calendar average WTI values at the end of September were $71.51/barrel for 2019 and $67.41/barrel for 2020, allowing producers to hedge forward production at higher-than-break-even levels. The only damper on new production is takeaway capacity constraints in the Permian, which we highlighted in a note two weeks ago (see "Sweethearts of the Permian — Refinery Margin Jackpot"). Even those constraints saw some relief at the end of September in the form of new pipeline capacity to Cushing, Oklahoma, due online earlier than expected at the end of October, which promptly halved the discounts producers have had to swallow for their crude in Midland, Texas.

Production and Exports

As we have drummed home repeatedly (see our May note "U.S. Crude Exports Take Off"), growing crude output from the shale basins is primarily headed to the export market, since domestic refiners aren't configured to process more light sweet crude. Hence, despite record refinery runs this summer, U.S. crude exports have continued to climb. According to EIA data, exports averaged over 2 mmb/d monthly in May, June, and July (latest data) and averaged 1.8 mmb/d this year through the end of September on a weekly basis. The rising tide of exports is pulled along by widening discounts for the WTI Cushing futures contract relative to international rival Brent, averaging $5.92/barrel between Jan. 1 and Sept. 28.

That is over $2/barrel higher than the 2017 average Brent premium of $3.88/barrel. We pointed out last week that the spread between WTI delivered to Cushing in the Midwest and WTI delivered to the Gulf Coast for export at Houston has shown volatility around pipeline constraints out of the Permian (see "Houston, We Need a Contract"), but there is still a strong correlation between a wider Brent premium over WTI Cushing and the level of crude exports (Exhibit 1). Cheaper WTI keeps exports competitive in international markets, allowing U.S. producers to gain market share at the expense of rivals in West Africa and the North Sea. More recent export headwinds are due to lower Chinese purchases because of the trade standoff, although crude has so far avoided tariffs.

Exhibit 1 Brent Premium to WTI and U.S. Crude Exports

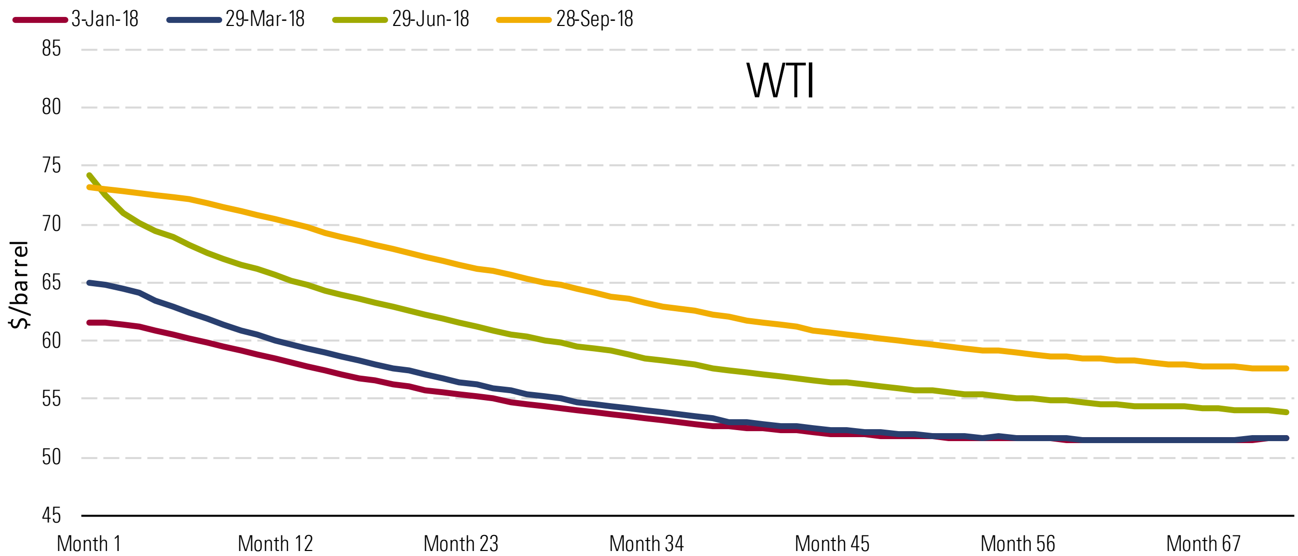


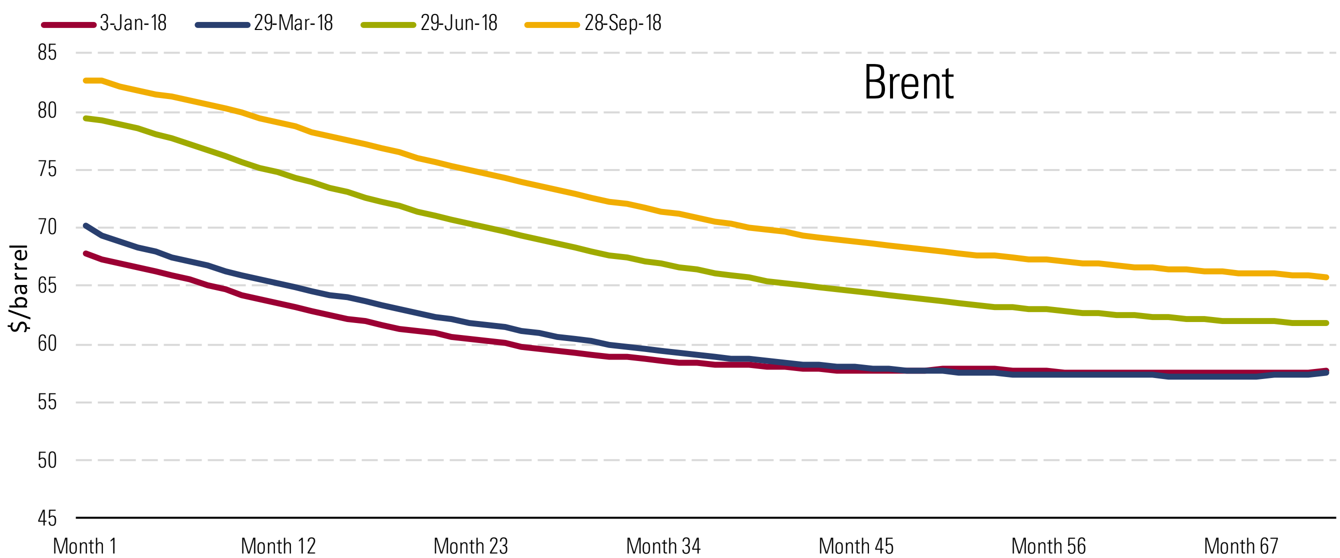
Source: CME Group, EIA, Morningstar

Futures

Turning to the futures market, we reviewed Brent and WTI curves for six years out as of Jan. 3, the first trading day of the year, as well as on the last trading day of each quarter since (Exhibit 2). Both futures contracts remain backwardated this year (forward prices lower than today), but expectations for WTI futures have generally kept to a narrower range than for Brent, except in June, when a shortage of WTI in the Midwest pushed up nearby prices at Cushing. In both markets, the curves flatten further out into the future. A near $15/barrel boost in Brent prices at the front of the curve over the period between January and the end of September shrank to $8/barrel at the back of the curve. The equivalent WTI gain over the same period fell from $11.62/barrel at the front of the curve to $5.98/barrel at the back. The flatter structure indicates that while prices may be weaker in the future, there is a floor price further out on the curve that has increased this year by about $6/barrel in the case of WTI—another positive indicator for U.S. producers looking to finance new production several years out.

Exhibit 2 WTI and Brent Forward Curves





Source: CME Group, Morningstar

Will the Good Times Roll?

With prices buoyant, production growing despite some logjams, and a competitive offering in export markets, the key question for the fourth quarter and beyond is whether the good times can continue for U.S. crude producers.

There are nearly as many views on this question as there are analysts. In general, financial traders or speculators are bullish about crude prices in the short term because of impending U.S. sanctions on Iranian crude exports in November. The OPEC cartel and its allies in the 2016 production agreement believe there are adequate supplies available to meet demand. They are reluctant to open their taps to put out speculative flames in the short term at the risk of flooding the market down the road and triggering a price collapse. The Trump administration wants to have its cake (sanctions on Iran) and eat it too (lower oil prices).

Our view is that demand is the key driver in this debate. If world demand for crude is growing this year and next over last year's levels, as predicted earlier this year by the International Energy Agency, EIA, and OPEC, then the market will tighten in the fourth quarter without Iranian supplies and prices will continue to increase, with WTI reaching as high as $80/barrel this month. In that case, the danger is that higher crude prices will stifle demand and the market will rebalance at a lower level early next year. This possibility that high prices will stifle demand is increased by recent dollar strength increasing oil prices for consumers outside the United States.

If demand growth is tepid this quarter in the face of a growing tariff conflict between the U.S. and China as well as a normal seasonal decline in refinery demand in the Northern Hemisphere winter season, then inventory levels will increase in consumer markets and prompt prices will weaken. In that case, new supplies from OPEC, Russia, or U.S. exporters will put downward pressure on prices and could spark a price collapse like that seen in 2015.

In either case, the market is looking to OPEC and Russia to manage the crude balance by adding or removing supplies to keep prices within an acceptable range, which we believe should be $65-$75/barrel for WTI and $10/barrel higher for Brent. If OPEC and its allies succeed, then U.S. producers will benefit from their self-control and continue to expand production and exports. If OPEC fails to balance supply and demand, then the likelihood of a price crash increases.

For U.S. producers today, the risk of a price collapse should be factored into their models, given that memories of 2015 are still fresh. In the circumstances we pointed out above, today's futures markets offer the opportunity to hedge forward production for 2019 and 2020 at $65/barrel or more. Alternative protection can only come in the shape of increased productivity and downward pressure on break-even costs to survive another price bust. M

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For More Information
+1 800 546-9646 North America
+44 20 3194 1455 Europe
commoditydata-sales@morningstar.com

MORNINGSTAR®

22 West Washington Street
Chicago, IL 60602 USA