Prospects for a Closer Brent/WTI Relationship in Europe

Platts proposes adding U.S. crude to Brent assessment.

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U.S. Energy Information Administration
CME Group
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Delivered Pricing Alternatives for Export WTI

Earlier this month, we detailed efforts by industry price-reporting agencies, or PRAs, and futures exchanges to provide Houston and Gulf Coast pricing contracts for growing U.S. crude exports (see Houston, We Need a Contract). These instruments assume international buyers provide their own tankers to pick up export crudes at Houston or other Gulf Coast ports or that delivery is made into the Houston pipeline/storage network. An alternate pricing mechanism would be based on delivery to a refining region outside the Gulf Coast such as northwest Europe or the Far East. In this follow-up note, we look at possible delivered pricing alternatives for U.S. exports of West Texas Intermediate crude.

FOB or CIF

Our previous analysis noted that most exports today are shipped from Gulf Coast ports, according to U.S. Census Bureau data. Buyers price these transactions based on crude delivered free on board, or FOB, to tankers provided by the buyer at a Gulf Coast location or delivered to the destination region using a tanker provided by the seller, who pays for shipping cost, insurance, and freight, CIF. Most major equity producers and national oil companies transact their international sales on an FOB basis, leaving the buyer to arrange transport. Until recently, there was no liquid waterborne Gulf Coast FOB crude price, and traders had to use domestic crude pipeline prices instead. Pipeline prices have the advantage of liquidity and transparency, but their delivery mechanism of X thousand barrels/day over a month differs significantly from an FOB export, where 600 thousand barrels or more are delivered onto a tanker in three days or less. Pipeline pricing is governed by domestic market considerations, such as refinery demand, pipe capacity, and tariff rates. Waterborne prices are more heavily influenced by international supply/demand fundamentals.

Added considerations in the U.S. export trade include differences in crude quality and consistency based on the origin of the barrels. Refiners prefer consistent quality from a known production stream, such as the current favorite Gulf Coast flavor—field-grade WTI delivered from Midland, Texas.

Dated Brent Rotterdam

In September, Platts proposed changes to its industry benchmark North Sea Dated Brent assessment that is used as a price reference in about two thirds of the world's crude sales outside the United States. These proposals include using WTI Midland crude delivered to the Rotterdam, Netherlands, northwest Europe trading hub as one of the components making up the Dated Brent assessment.

The Brent market is a complex mixture of spot and forward prices for individual North Sea crude streams, the Dated Brent assessment, and Brent futures traded on the London-based ICE exchange.

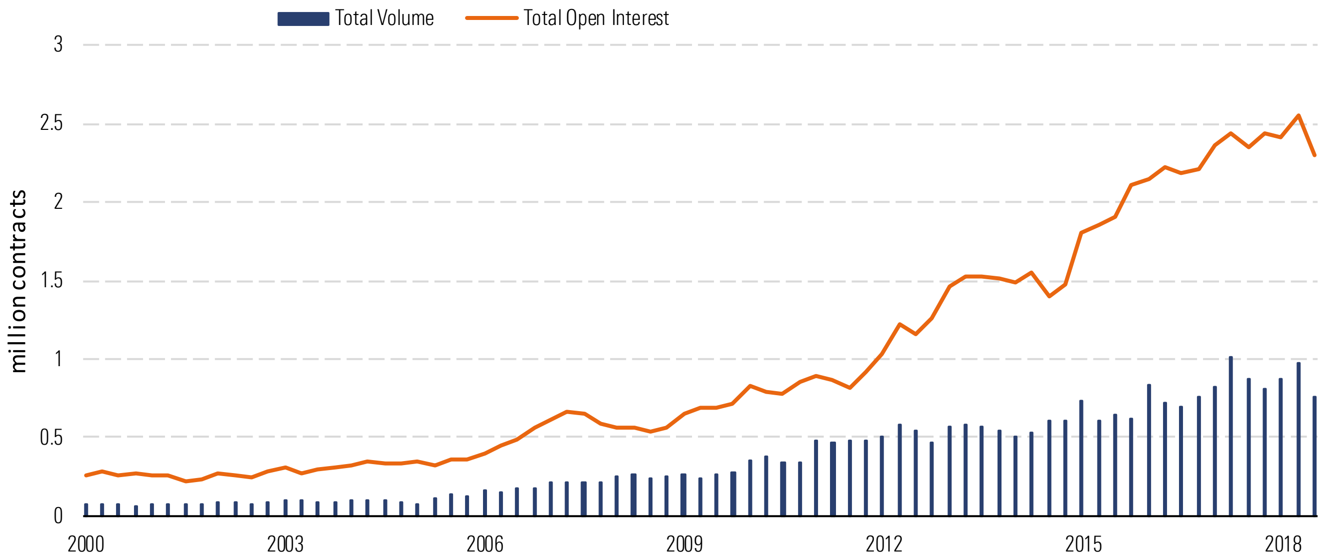
Platts publishes daily FOB spot market assessments for dated cargoes of five North Sea crude streams, namely Brent Ninian Blend, Flotta, Oseberg, Ekofisk, and Troll. Dated cargoes represent parcels of production crude assigned to load dates between 10 days and a month ahead. The Platts Dated Brent assessment is the most competitive of these grades on any day based on price and quality adjustments. The Dated Brent assessment is the basis used by producers to sell crude into European as well as Asian markets with a negotiated premium or discount based on quality and market differences. Forward assessments are also published for trades involving crude parcels not yet assigned load dates (the Brent paper market). A Brent Index price calculated by ICE based on published assessments and futures exchange trades provides a link between the futures and physical market.

Ongoing concerns about declining physical volumes of crude grades in the Dated Brent assessment (now covering about 900 thousand barrels/day of production) led to the September Platts proposal to broaden the benchmark's coverage. The proposal, open for industry comment until December, has two suggestions. The first is to broaden the range of Dated Brent transactions to include CIF cargoes delivered to Rotterdam in the Netherlands. The inclusion of CIF Rotterdam trades in the five North Sea grades would increase the liquidity behind the benchmark Dated Brent assessment. The second suggestion is to broaden the number of CIF Rotterdam crudes included in Dated Brent by adding similar grades from other regions, including Nigeria, Russia, and WTI from the United States. That would make WTI CIF Rotterdam part of the Dated Brent assessment. In this scenario, individual WTI cargoes would still be traded CIF northwest Europe, but these trades would also be considered part of the group of similar-quality light sweet crudes included in the Dated Brent benchmark assessment.

Liquidity

Such a Brent crude link to WTI in Europe would recognize the growing significance of U.S. crude exports to world supply. This makes sense, given Dated Brent is currently assessed based on 900 mb/d of North Sea production and U.S. crude exports so far in 2018 (through September) have averaged double that volume, or 1.8 million barrels a day, according to the Energy Information Administration. Linking WTI to the Brent market in northwest Europe also makes sense because Brent is widely traded and sits behind the second largest crude futures contract after CME WTI. Exhibit 1 shows quarterly average total volume and open interest traded on Brent ICE since 2000. Volumes in the past five years ranged from 0.5 to 1 million contracts/day and open interest has increased to over 2 million contracts/day. Each contract is 1,000 barrels of crude.

Exhibit 1 Brent ICE Total Volume and Open Interest



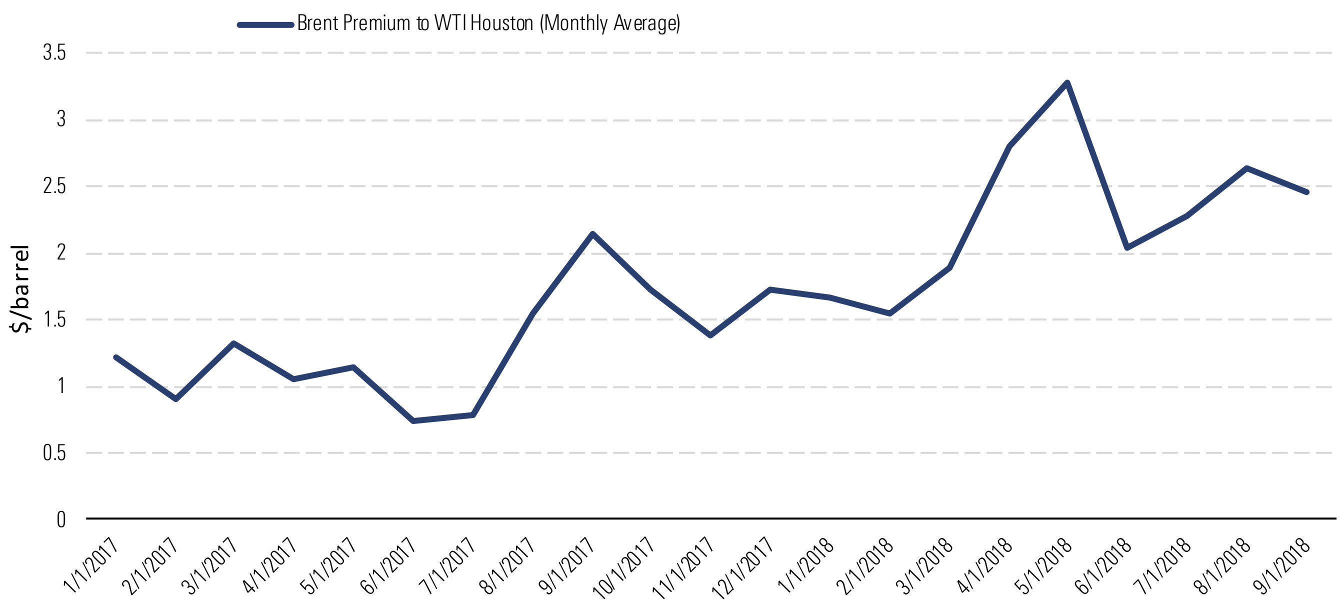
Source: ICE, Morningstar

Refiner's Delight

Including WTI deliveries in the Dated Brent assessment would permit European refiners buying U.S. crude to better manage exposure to the spread between WTI prices in Houston and Brent in Europe. Brent and WTI are similar-quality light sweet crudes with differences in price largely based on location. Before the shale era when the U.S. imported significant light sweet crude at the Gulf Coast, Brent typically priced about $1/barrel below WTI delivered to Cushing, Oklahoma, to account for the freight cost between the North Sea and U.S. Midwest refineries. Now U.S. refiners enjoy a surplus of domestic shale crude and rarely import light sweet cargoes. [Note: Brent and other light sweet crudes like Nigerian Bonny Light are still imported by East Coast refineries that don't have access to competitive shale supplies (see our July 2017 note “East Coast Refineries Recover From Shale Loss”).]

With WTI now an export-grade crude—selling into Europe and Asia as well as to domestic refiners—pricing for WTI is complicated by divergence between the export market at the Gulf Coast and the domestic market at Cushing, Oklahoma. We detailed this divergence as well as a third market for WTI crude in the Midland, Texas, producing region in a July note (see "The Permian Triangle and U.S. Crude Dynamics"). Although large spreads have recently opened between WTI prices in Midland, Cushing, and Houston, these are related to pipeline congestion out of the Permian Basin and have little impact on Houston export prices. So while WTI price spreads between Midland and Houston have blown out to more than $15/barrel lately (see our August note "The Permian Triangle - Midland Discounts Encourage Exports"), the spread between WTI Houston and Brent has traded in a narrower range between $1 and $3/barrel (Exhibit 2). For European WTI buyers, this Brent premium over Houston WTI is better managed by negotiating a delivered WTI price that fixes the freight cost. Including WTI in the Dated Brent assessment makes hedging the final price more efficient by removing Brent/WTI volatility from the equation.

Exhibit 2 Monthly Average Brent Premium Over WTI Houston



Source: CME Group, Morningstar

Sellers Beware

For U.S. producers and sellers, a CIF northwest Europe price is less convenient than FOB Gulf Coast since it requires them to organize transport and bear the freight risk. In this case, their realized netback (destination price minus transport) would also be exposed to Brent prices if the Dated assessment included CIF WTI. And while the ICE provides liquidity and transparency for hedging, it is a less familiar instrument for U.S. sellers than using CME Nymex. Hedging transactions in the Brent market also adds timing risk between the Dated assessment and prompt futures that needs to be managed using relatively complex over the counter swaps known as contracts for difference.

Because it is less attractive to the seller than the buyer, the use of a delivered northwest Europe price for WTI will therefore only be agreed to by sellers when buyers are scarce or when the seller wants to encourage a term contract that guarantees sales and keeps its customer buying on a regular basis. We expect these kind of term deals to develop over time and to include destination terms just like buying from the Saudis. In the short term, though, northwest Europe is a net buyer of crude so that refiners probably have less bargaining power over spot transactions.

Asia Delivery

An Asian equivalent delivered price mechanism that could provide similar buyer assurance to the European Brent market doesn't exist today. Current term crude sales to Asia by Middle East producers are based on FOB Brent pricing, or an average of FOB Dubai and Oman Mideast crude assessments. Hedging is limited to Brent Dubai swaps or the DMX Exchange Oman contract. Both Dubai and Oman are medium-sour crudes—introducing a major quality differential into the price equation. Since the Asian market offers higher growth potential to U.S. exporters than Europe, there is an incentive to develop such an instrument. In the absence of an existing physical mechanism a WTI delivered Asia price marker could take years to develop. Its availability will be invaluable in building long-term relationships with Asian buyers.

Slow Development

As the U.S. crude export market takes off, we expect more producers and buyers to negotiate term deals that resemble the pricing basis used by other major suppliers. This process will start with the development of a liquid WTI FOB Houston or Gulf Coast market and could then expand to a delivered European price. Although a delivered Asia price is practically valuable, buyers and sellers will take time to agree on a WTI delivered Asia price mechanism. If U.S. exports follow precedent in the oil market, then the use of new instruments will develop more slowly than participants desire because it takes time to establish confidence in any new trading mechanism. In the meantime, we expect to see other proposals like Platts CIF Rotterdam emerge as buyers and sellers navigate the new market.

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