



Global Crude Benchmark:
Methodology

Abstract

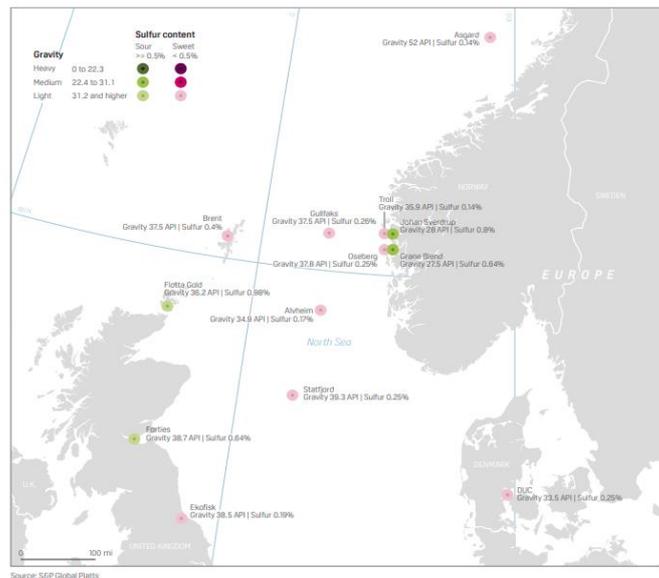
The current availability of a representative tool for global crude prices is insufficient. This document considers the available contracts, their liquidity, and their appropriateness to act as a representation of fair prices. The Onyx Global Crude benchmark uses a basket of contracts which provides a more comprehensive and basis-reducing method for traders to appropriately express their view on Global Crude prices.

Introduction

The most common current tools in expressing a view on crude prices is through contracts ICE Brent Futures and CME WTI Futures. We argue these prices are not a good reflection of global crude prices.

When referring to ICE Brent Futures, as stated by their methodology in pricing, “The ICE Brent Index represents the average price of trading in the prevailing North Sea ‘cash’ or forward market in the relevant delivery month as reported and confirmed by industry media” and in fact, the price of this contract represents only 5 oil producing fields in the North Sea: Brent, Forties, Oseberg, Ekofisk and Troll. Locationally, all 5 fields are in the North Sea between the United Kingdom and Norway, meaning any physical disruptions occurring in this specific area of the world will impact this contract, ICE Brent, specifically and solely. This contract therefore fails to represent the true state of global crude prices in such situations.

In addition to this, these particular crude oil grades have a defined number of parcels every month, often the whole program is around 35-40 parcels of 600,000 barrels each with a breakdown of Brent: 3, Forties: 10-15, Oseberg: 5, Ekofisk: 10-15, Troll: 5. Because the equity programs are very defined, if there is a particular interest to buy a large proportion of any of these crude grades the ICE Brent contract may rally excessively relative to global crude supply and demand balances. Hence, we generally see an overextension in this contract’s price as the market suffers from many “bull plays” in ICE Brent contract.



When referring to CME WTI Futures, as stated by their methodology this contract is “*priced out of Cushing, Oklahoma*”. The methodology specifies so long as particular criteria is met in the crudes chemical composition, for example, “*2. Sulfur: 0.42% or less by weight as determined by ASTM Standard D-4294, or its latest revision;*” then the crude is able to be included toward the pricing of this CME WTI contract. Secondly, Cushing, Oklahoma has defined storage facilities. Hence, we often see “bear plays” in the CME WTI contract due to logistical constraints in storing the crude oil. In times when the storage facilities in Cushing, Oklahoma are under pressure (but all other facilities in the US and globally are not under pressure) we can see a disparity between the value of the CME WTI contract and the true balance of supply and demand for the global crude market. These infrastructural constraints can explain the negative WTI pricing experienced in April 2020 when all other crudes were pricing ~\$60/bbl above these levels.

Furthermore, both ICE Brent and CME WTI contracts represent a particular specification of crude oil – light in density and sweet in sulfur content. Therefore, all heavier and more sour crudes are omitted when these contracts are traded, when in fact heavy sour crudes represent roughly 50% of the current crude production. Furthermore, these contracts omit all crudes East of the Suez Canal: large producing countries such as China, India and UAE are not represented in either contract ICE Brent or CME WTI.

Lastly, we consider the volumes traded in both ICE Brent and CME WTI. The volumes traded versus the volume of physical used to price these contracts is extraordinarily skewed at around 1000 to 1. Because both contracts eventually price off specific and limited volumes of crude, speculative positioning is unwound before pricing. This means only a small proportion of market participants that have access to the said limited number of physical barrels have enormous control over where these contracts ultimately price leading to a disparity between the health of global crude balances and these ultimate price of the two contracts.

Proposal

Onyx Crude Benchmark = 50% Dated Brent + 30% Dubai + 20% WTI Houston

Justification

When assessing which contracts are best representative of global crude balances and therefore which combination fairly represent a sensible price, we must consider a few specific factors.

1. Liquidity
2. Transparency
3. Geographical representation
4. Basis (underlying physical associated with the contract)

We assume the split in global light/sweet versus heavy/sour crude slate 70/30 split, with the majority of light sweet fields West of the Suez Canal and the heavy sour fields East of the Suez Canal. Note, we assume the top 3 producing oil countries remain to be, in order, the United States of America, Saudi Arabia and Russia.

In order to represent this global crude slate, we consider including both a light sweet and heavy sour representative contract in the benchmark.

Physical transactions:

In the physical market, many crude oil grades are priced relative to benchmark prices. Dated Brent is the most common benchmark contract, with 60% of all crude oil grades are priced off Dated Brent, as reported by Platts. These oil grades include in areas of the Mediterranean North West Europe, West Africa and Latin America. Most recently, some Indian crude grades have been negotiated to price off Dated Brent contracts.

Dated Brent is a light sweet oil grade. Locationally, it is priced off physical BFOET barrels in Rotterdam or at their respective loading ports, eg for Forties the port is Hound Point. The assessments reflect loading 1 month forward.

WTI is another benchmark price in which many physical transactions in the US are referenced against.

WTI Houston (MEH) is a light sweet oil grade. Locationally, it is in the US Gulf Coast and does not have storage constraints. The assessments reflect loading 2 months forward.

Due to the scale of the transactions negotiated against the Dated Brent benchmark, we split the weighting of 5 to 2 in favour of Dated Brent over WTI MEH.

Aside from Dated Brent and WTI, Dubai crude oil swaps are used to price many crude grades in the Asia Pacific region, particularly for the Middle East and China. This is because Dubai mimics the crude slate in these regions more closely than the lighter and sweeter benchmark Dated Brent and WTI MEH prices.

The Dubai benchmark is a heavy sour oil grade. Locationally, it is priced off barrels in the Persian Gulf (Dubai, Oman, Upper Zakum, Al Shaheen and Murban) although they are destination free. The assessments reflect loading 3 months forward.

We give the Dubai benchmark a 30% weighting in the benchmark to represent Eastern crude oil prices.

All three benchmarks, Platts Dated Brent, WTI MEH and Platts Dubai, hold good liquidity and are recognisable hedging tools for physical traders around the world. Due to this, they are good representations of global crude prices as they settle all physical grades around the world.

The assessments of the contracts are thorough and inclusive of physical and paper trades ensuring a transparent price.

Conclusion

This document discusses the need for a better tool for trading the crude outright price, without being skewed by basis and specific physical activity:

1. Basis
2. Specification
3. Liquidity

After consideration, the benchmark is a better reflection of Global Crude prices and can track the prices closer than any other current futures price available to the market.

Product	Contract Name
WTI Houston	WTI Houston (Argus)
Dubai	Dubai Crude Oil (Platts) Financial Futures
Dated Brent	Dated Brent (Platts) Financial Futures

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