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Benchmark Shift Drives ICE Brent Option Surge

By John Parry

t's not unusual for exchanges to host contracts which are barely used by the market. But it is unusual for a relatively quiet contract to suddenly burst into new life. particularly for a long-established commodity.

Brent crude oil options are a case in point. As recently as 2010, ICE Futures Europe handled just 165,286 Brent options contracts all year. In 2011 volume shot up to 2.2 million contracts and by July 2012 volumes had already doubled to more than 4 million contracts, including a record month in May of over one million contracts.

Between ICE and its main rival, the New York Mercantile Exchange, more than two thousand energy derivatives are available for trading, but Brent options on ICE has suddenly become the hot new contract. What's behind this surge?

Shift in Benchmark

Brent crude options were first listed in 2001 on London's International Petroleum Exchange but remained largely moribund until a decade later. The key to its emergence as a major contract was a change in market thinking about physical crude benchmarking.

As the largest exchange-traded futures contract on crude oil, the West Texas Intermediate futures contract traded on Nymex has long been the leading benchmark for physical crude and related products. Even though the contract is based on a delivery point in Oklahoma, the deep liquidity available at Nymex made it the market of choice for international hedgers and speculators alike.

Recently, however, the international relevance of the WTI contract has come under strain, mainly because its land-locked delivery point is subject to different supply and demand pressures than seaborne Brent. Starting in the first quarter of 2011, WTI and Brent prices started to fundamentally diverge, and by October the spread between

the two benchmarks had hit an all-time high of nearly \$28.

Zac Phillips, head of oil and gas research at investment bank Fox-Davies, explained that Brent was driven higher by geopolitical events in the Middle East and declining North Sea production. Meanwhile, increasing U.S. and Canadian production, particularly from shale formations, weighed on WTI prices. The resulting divergence in prices created significant basis risk for hedgers.

"With a price differential of \$15-\$20 per barrel, using WTI as a hedge for non-WTI production became problematic," said Phillips. Effectively, a barrel of Brent or equivalent was only 80% hedged by WTI futures. That resulted in losses for non-U.S. producers selling oil benchmarked to WTI. Likewise, consumers whose costs were linked to Brent found that WTI hedges were not fully offsetting the rise in Brent prices. And finally, asset managers of index funds locked into WTI missed out on Brent's out-performance.

As a result, there has been a marked shift in market behavior as producers, consumers and asset managers have switched to using Brent as the benchmark for oil prices. Aaron Gill, ICE's London-based managing director of business development, said Brent is now used as the benchmark for around twothirds of global crude production. That has been reflected in the growth of Brent futures trading on ICE, which surpassed Nymex WTI futures volume earlier this year for the first time ever. Similar factors are now driving the growth of Brent options.

"For now WTI still remains the main market for crude oil options but ICE Brent is gaining market share fast," commented Olivier Jakob, managing director of Swissbased oil market consultancy Petromatrix. "Brent is increasingly used by oil market hedgers and the growth in ICE Brent options is a natural trend considering the growth in Brent futures."

Hedging Price Risk

But how do the fundamentals of the market translate into option business? One example is the airline industry. Mercatus, an energy hedging and risk management advisory firm, recently surveyed the airline industry on its jet fuel hedging activity. The company found that more than 80% of the airlines were hedging fuel price risk, and that the most common instruments to do this were swaps and options.

The market for derivatives based on middle distillates such as jet fuel is not as liquid as the crude oil market, according to oil industry adviser Daniel Carr. A number of airlines therefore use Brent crude swaps and options, with swaps aimed at a two-year hedge horizon and options used for covering shorter term price risk. Finnair's 2011 annual report, for example, describes how its use of swaps and options is designed to cover a larger part of the higher risk as it nears expiry while at the same time allowing beneficial price moves to come through.

Julian Keites, director of price risk management at World Fuel Services in London, explained that for this type of end-user, options are a better hedging tool than futures. "As, for example, a two-year swap approaches its term end-date the client perceives his exposure to the reference price more clearly. Options have a real value here as they can hedge a potential negative cash call on the swap, e.g. by buying puts to cover downside price risk. Since the client usually wants to cover one way price risk, options do the job better than futures."

Mercatus president Mike Corley noted that other energy users are hedging. "At the top of the list are transport companies, but not far behind are manufacturers and processors who consume enormous amounts of natural gas and electricity. The Brent option is often a good choice as it is liquid and will have a decent to



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strong correlation to the actual product you are consuming e.g. bunker fuel, at least over the longer term."

Open Interest

The growing hedge activity in Brent options is reflected in the steep rise in open interest. The total number of outstanding Brent options at ICE was around 80,000 contracts at the beginning of 2011, rising to over 400,000 by the end of the year. By the middle of 2012, open interest was consistently holding above one million contracts.

Across the Atlantic, the WTI options market at Nymex is still much larger in terms of open interest. The number of outstanding positions in its flagship LO contract—American-style options on WTI futures—was 3.46 million contracts at the end of June.

That was three times the size of the open interest in Brent options, but the growth trend is negative. Open interest in the LO contract was down 12.7% from June 2011. And open interest in the less active LC contract - European-style options on WTI futures—was 270,000, down 40% from the year-ago level.

That's not the whole story, however. Nymex

also clears several other types of options linked to WTI, such as calendar spread options and average price options. Adding together the open interest for all of these options contracts brings the total number of outstanding WTI-related options to 5.83 million.

What's more, Nymex also clears its own version of the Brent options through Clearport. As of the end of June, Nymex reported 387,000 contracts in open interest in Brent average price options, up 78% from the previous year, and 123,000 European style last day Brent options, up 39% from the previous year. Nymex may not be the natural home for Brent options, but clearly many of its customers are active in that market and prefer to maintain their positions at Nymex.

These numbers highlight another factor in the growth of Brent options volume—the migration towards central clearing. Well before the credit crisis of 2008-2009, the energy sector embraced clearing as a way to reduce counterparty risk and use capital more efficiently. Even though much of the trading continues to take place in the overthe-counter environment, most trades are routed through the exchanges for clearing, boosting volumes at both ICE and Nymex.

Paul Newman, head of commodities at ICAP in London, observed that for many years crude oil was traded almost entirely in the form of physical cargos, forwards with varying dates, and swaps for hedging. "Five years ago we gave up less than 5% of our OTC trading into post-trade clearing," said Newman. "Now it's more like 90% to 95%."

Market-Making

Much of ICE's volume in Brent options is negotiated off the exchange and then submitted for clearing. Mike Hiley, Newedge's New York-based head of energy OTC, said the London locals who have emerged as screen traders on ICE perform a valuable function in enhancing liquidity. A number of these have attracted external funding for their trading activities, which increases the volumes they trade.

ICE's Brent option contract is a classic American style option on the underlying future, with a contract size of 1,000 barrels. which trades 24 consecutive months out, followed by Jun/Dec expiries currently out to 2015. It has a one cent tick size and trades 22 hours a day, closing for two hours around the U.K.'s midnight, which means it is open during both the Singapore and US trading day.

ICE operates a nominated market-maker programme which provides discounted trading fees for Brent options and corresponding futures hedging strategies. Market makers have to be present and make markets for a variety of different strikes at various times during the trading day, but specific market-making terms are not disclosed for reasons of commercial sensitivity.

Later this year ICE will tweak its Brent contracts—both futures and options—to Brent NX (new expiry) to reflect shifts in the underlying dated Brent market. The first ICE Brent NX contract month available for trading will be December 2012, which will allow participants to hedge their full 2013 calendar year exposure. There will be no changes to the existing ICE Brent contracts, which will continue to trade as normal and will be the only contract months available for trading up to November 2012.

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