



Unfolding Trends in the Oil Trading Industry

Energy & Resources

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A photograph of an oil pumpjack in a field under a blue sky with clouds. The pumpjack is in the foreground, and a long, thin stream of oil is being pumped out of the wellhead, falling into a collection tank. The background shows a flat, open landscape.

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Introduction

An Evolving Backdrop

The commodities industry is adjusting to a 'new normal': plentiful supply and sluggish demand. Consequently, over the last 18 months, a range of commodity prices has plunged, few more so than oil, which has fallen towards lows not seen since the 2008 global financial crisis.

The implications of low oil prices have been far-reaching. Since the outlook of a crude price ascent appears bleak, oil companies have implemented aggressive cost saving measures. Indeed, over the past 18 months 'portfolio rationalisation' has prompted sharp Capex and Opex cuts. Furthermore, regulatory and capital pressures have forced many banks to scale down their involvement in the oil trading sector,

leaving a potential void in the liquidity of financial commodity markets and reducing the influence of traditional energy-financing.

Though the low and volatile price environment has challenged oil trading companies, the industry make-over has also presented opportunities for new entrants, particularly commodity trading houses, private equity/hedge funds and investment firms, to participate in an industry previously dominated by a handful of major players. Moreover, it is becoming clear that those oil trading entities that command and control 'optionality' by assembling an asset base across the value-chain, are best-poised to capitalise on market volatility.

Six Core Trends Re-Shaping the Oil Trading Industry

This paper addresses the broad impact of low oil prices on global oil trading; in particular it highlights **Six Core Trends** shaping the oil trading sector in the last 12 months:

- I. **Capturing the Value of Optionality – space, time and form**
- II. **Diversification: Capturing Value across the Supply Chain**
- III. **A Banking Retreat**
- IV. **The Necessity of Risk Management**
- V. **Trading Plays: Strategic Moves in a Downturn**
- VI. **China: Implications of a slowing economic powerhouse**

Six Core Trends: Capturing the Value of Optionality

In the last 18 months, unique supply and demand forces have contributed to converging and diverging price movements between global crude benchmarks. For instance, the fluctuating spread between WTI-Brent prices aptly illustrates the apparent yo-yo effect (**Figure 1**). This, together with the relatively high crack spreads, has created arbitrage and value opportunities for oil traders. Indeed many trading entities are adapting their business models to capitalise on the volatility of prices and disruption caused by varying events. In such an environment, traders are realising that far more of the value in

a supply chain is tied to flexibility and responding promptly to consumer needs and demands.

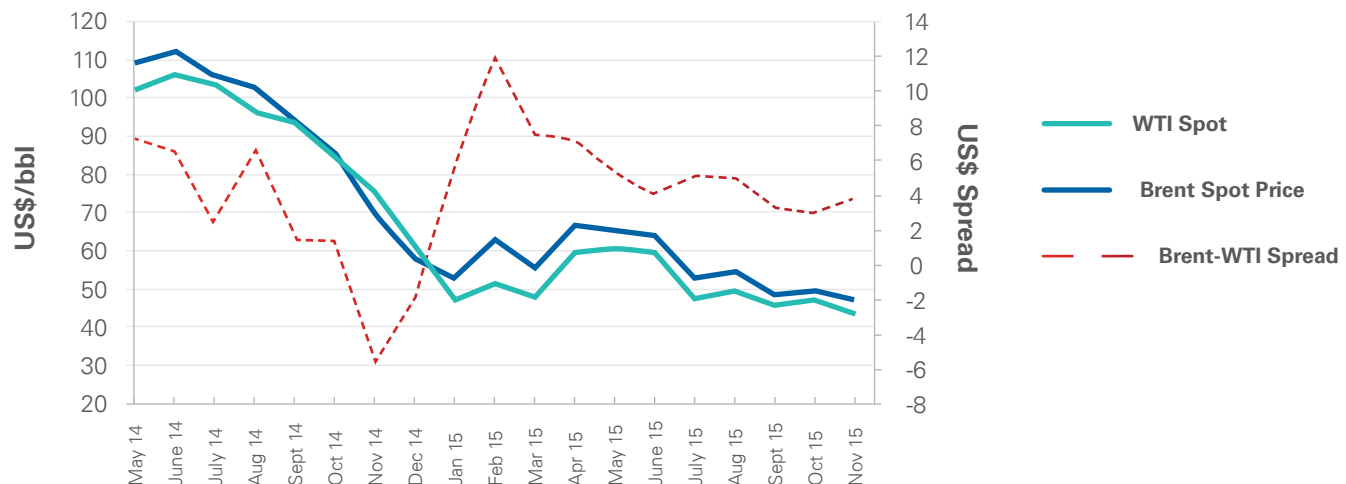
It is important to emphasise that the essence of oil trading revolves around the process of transforming oil in three ways:

- In space - using logistics
- In time - through storage
- In form - with processing

Oil trading houses attempt to identify the most valuable transformations – undertaking the transactions necessary to make

the transformations – engaging in physical and operational actions to carry them out.¹ If traders can optimize these transformations, they will in turn create value. In an effort to optimize transformations, oil trading functions are pro-actively trying to execute ‘optionality’, which is defined as adjusting the use of the asset in response to unexpected supply and demand shocks and the associated relative price changes.² Oil trading companies add value by identifying and optimizing transformations in commodities that take advantage of geographic mismatches between supply and demand.

Figure 1: Brent - WTI Spread



Those traders that can build a global logistical network and harness a range of options in relation to space, time and form, will strengthen their portfolio position by smoothing supply and demand imbalances and hold a competitive advantage vis-à-

vis their competitors. They will be better positioned to capitalise on options inherent in their portfolio of purchase and supply contracts. Furthermore, traders harnessing a global portfolio of assets have a range of options on hand, allowing

them to react to unexpected and/or disruptive events, such as the 2011 Fukushima disaster. Ultimately, larger and more diverse companies are best placed to capitalize on this advantage.

¹ The Economics of Commodity Trading Firms, Firm Structure & Ownership, Craig Pirrong, March 2014

² Ibid

Diversification: Capturing Value across the Supply Chain

Since the inception of the oil industry, traders have strived to capitalise upon market volatility and a lack of price transparency, which have traditionally manifested into physical arbitrage opportunities. However, the ability to profit from pure physical arbitrage has become increasingly difficult in recent years due to several factors. These include information technology allowing monitoring of activities of competing traders (for instance, by tracking vessel movements in real time), and substantial strides forwards in price transparency in the energy markets. As a result, oil trading entities have tried to capitalize on scarcer physical arbitrage plays and enhance optionality by investing at multiple stages of the value chain. Though there is substantial variation in asset ownership across oil trading firms, there is a trend towards vertical integration³ and business model diversification.

The bulk of major oil trading entities own midstream assets such as

storage, blending and terminals and indeed, there is a strong economic case for this. Entities that control their own storage and processing are not subject to the risk of a third party creating an artificial bottleneck to extract value from their storage, blending and processing assets during times of volatility. Moreover, midstream assets can strengthen an oil trading entity's hedge position. For example, when there is a market shock, the negative correlation between storage and chartering assets can cushion the potential downside impact.

Furthermore, in a period of acute volatility, oil and gas trading houses that are vertically integrated are best placed to take advantage of market imbalances, exploit market volatility and quickly react to changing conditions and unexpected events. For instance, in the immediate aftermath of the Fukushima crisis that caused local gas prices to spike, global commodity traders

with access to LNG storage options and logistical assets were able to undercut local players and deliver necessary gas supplies to Japan swiftly. Moreover, traders with access to intact terminals and pipeline were able to utilise them to capture the value created by the arbitrage.

A number of major oil and gas traders have also invested in upstream oil assets. Trafigura, Vitol, Glencore and Mercuria have all developed crude supply feeds. One motivation to have upstream plays is to not only buttress security of supply, but also to improve transaction efficiencies. The inefficiencies and costs of having a large buyer and a large seller dealing negotiating can be mitigated if the buyer has an ownership stake.

Ultimately, large players with control over tangible global assets are better positioned to utilise the embedded optionality and flexibility to capitalise on seismic market movements.

Examples of Oil Trader Diversification

- Central to its diversified business model, Trafigura holds Puma Energy as part of its midstream and downstream division. Puma has bought downstream assets in Africa and Latin America. In March 2015, Puma Energy agreed to purchase BP's Australian bitumen business.
- Mercuria has consistently invested in upstream oil & gas assets around the world. They have assets in the US, Canada, Argentina, Equatorial Guinea, Nigeria, and Romania.
- Vitol has over 20 years of experience in exploration and production. It has developed and managed a range of projects in places as diverse as the Philippines and the Former Soviet Union (FSU). Today, its upstream assets include both oil and gas reserves and production in West Africa, Eastern Europe, Central Asia, the Middle East and the US, and it currently produces around 10,000 bopd. In January 2015, Vitol, Eni and the Ghanaian Government announced a joint-venture project to develop oil and gas fields to support Ghana's power sector.

³ Ibid

A Banking Retreat

A culmination of regulatory requirements, lower margins and stakeholder scrutiny has led to a wide-spread retreat of banks from the commodity and oil sector. Indeed since 2010, nine of the world's 10 largest Western banks that have been active in physical commodity trading have made moves either to withdraw from commodity trading completely, or to curtail their activities drastically.⁴

In the past, banks entered into the oil arena to diversify their activities and capitalise on volatile commodity prices. Branching out of their traditional structured-financing role, a number of commercial banks muscled their way into the sector by obtaining physical assets and participating in commodity trading.

However, changes in the regulatory environment, specifically the introduction of Basel III, have placed greater constraints on their business, particularly with regard to increased capital requirements of their balance sheet and implanting leverage ratio restrictions. Subsequently, the banks first withdrew from their physical operations, then pulled out of commodity trading and have recently exited the commodity finance market in response to such pressures,

scaling down their financing to refocus on their core business.

Basel III, through the risk weighted assets (RWA) approach, has required commodity related transactions to have increased capital requirements, making commodity financing trades less attractive. Furthermore, banks have tightened access to commodity financing because of return on risk weighted asset requirements (RoRWA), which have prompted banks to charge higher fees to make trade finance transactions profitable.

As investment banks de-risk, companies operating in oil trading are having to tap into new and innovative sources of funding. Increasingly, smaller banks with a higher risk appetite are coming to the forefront. There are also a number of Chinese banks looking to participate in syndicated facilities. Moreover, for the use of securitisation, hedge funds, private equity and specialised trade finance funds are incrementally being used by commodity traders as financing alternatives.

Considering trading is often a low-margin play and tangible assets can be expensive, one way to maximise profit is by trading as much volume

as possible. Traders need large amounts of financing to turn over as much volume as possible to fund investments. Through strategies such as acquiring stakes in assets or forging joint-venture alliances, it is clear that some large commodity traders are building strategic partnerships to fund investments.⁵

For instance, in 2014, commodity trader Noble Group forged an alliance with private equity house EIG Global Partners to acquire oil and gas companies that focus on E&P plays. Known as Harbour Energy, the platform targets assets that provide exposure to key supply trends and potential off-take arrangements.⁶




From a trading perspective, the ramifications of banks exiting physical plays could prove to be a double-edged sword. Some in the traditional oil and trading houses may consider this a positive development as a result of fewer competitors in the market. Yet, competition effectively drives liquidity and transparency, which in turn lowers the cost of transacting. It remains to be seen just how big an impact the 'banking retreat' will have on the sector; but one thing is certain: oil financing with the oil trading arena has become increasingly diverse.

⁴ The Dawn of a New Order in Commodity Trading, Act III, Five Megatrends That Will Alter The Industry And Commodity Markets, Oliver Wyman

⁵ The Dawn of a New Order in Commodity Trading, Oliver Wyman Risk Journal, Volume 2

⁶ Asia Venture Capital Journal, Noble Group, EIG form energy joint venture, 2014

Figure 2: Primary Regulatory Measures impacting oil trading companies

 Regulation	 Measures	 Implications on the Financial System
Basel III (Global)	<p>Regulatory framework designed to strengthen financial institutions by placing guidelines pertaining to leverage ratios, capital requirements and liquidity:</p> <ul style="list-style-type: none"> • Maximum and Minimum Leverage Ratio • Minimum Capital Requirements. Banks are required to hold 4.5% of risk-weighted assets in the form of their own equity. • Liquidity Requirements 	<p>Tightening access to financing as banks lower-trade finance exposure</p> <ul style="list-style-type: none"> • Less availability of letters of credits, especially for higher-risk counterparties • Tougher to raise syndicated loans • Higher costs across all trade-finance products • Limit on illiquid assets
Dodd-Frank Act (US Centric)	<p>Regulation affecting over-the-counter derivatives trading</p> <ul style="list-style-type: none"> • Central clearing of OTC derivatives • Limitations on leverage • Stricter requirements on transparency, risk management and governance 	<p>US swap dealers have seen increasing cost pressures on their trading operating models</p> <ul style="list-style-type: none"> • More stringent capital requirements, increasing the cost of capital • Tighter and more vigorous margin screening
Volcker Rule (US centric)	<p>Limits to banks trading activities</p> <ul style="list-style-type: none"> • Eliminates proprietary trading (financial / physical) 	<p>Changes to competitive set as banks exit/spin off commodity trading</p> <ul style="list-style-type: none"> • Less speculation • Less market-making, less hedging tools (further rising trade-finance costs)

Source: KPMG

The Necessity of Risk Management

As banks have scaled down their commercial and financial activity in the commodity sector, the risk management landscape has changed.

Previously, oil companies and traders were competing with investment banks. This is not the case today. There are a swathe of new financial entities, merchants and traders participating in oil trading. It is increasingly apparent that banks which have retreated from the commodity sector were generally the ones most willing to warehouse risk in-house, while the newer wave has tended to pass the risk to market or back-to-backing.

To either hedge and/or speculate on trades in a climate of acute oil market volatility, the use of derivative instruments are standard market practice. Over-the-Counter (Forwards, Swaps and Options, for example) and exchange-traded (for instance, Futures) derivatives can be useful

risk management tools in a trader's strategic arsenal, and their usage to mitigate outright flat/price risk or speculate on market dynamics, is now a common feature in both the physical and paper trading arena.

Although commodity price risk is arguably the most significant risk for most trading firms, other risks, notably liquidity and credit risk are potent concerns and have to be managed carefully. Indeed, managing credit risk is a core factor driving the demand for exchange-traded derivatives. The other avenue for derivatives is exchange-cleared derivatives – Over-the-Counter derivatives that are cleared through an exchange to wash out the majority of the counterparty credit risk. The role of the clearing house has become central in ensuring the credibility and liquidity of the market. The clearing house guarantees the fulfilment of each contract and becomes the formal counterparty for both the buyer and seller of the

derivatives contract. To minimise the credit risk, the clearing house requires an initial margin from both counterparties. At the end of each trading day, to mark-to-market the accounts, positions that have made a loss beyond a threshold are mandated to top up their margins (variation margin) to their initial levels.

As a consequence, the potential credit risk for the buyer and seller is minimised by the clearing house, to the margin call level specified by the exchange.

Through building a diversified portfolio, the liquidity and credit risk of many oil trading entities has intensified. Although most cash-rich oil traders and IOCs can afford to purchase assets in this environment, investing in tangible oil assets is often a costly exercise involving large Capex sums. In such an environment, oil trading entities must initiate thorough due diligence of their liquidity and credit exposure.

Trading Plays: Strategic Moves in a Downturn

After the global financial crisis, the crude oil market had been characterised by relatively high prices. In 2011-2014, the crude market experienced unprecedentedly high and steady prices, with supply and demand forces seemingly offsetting one another. Indeed following the Arab Spring and Civil War in Libya, Brent Crude had traded broadly sideways, dipping below the US\$100/bbl mark only briefly.

In June 2014, the environment changed, with oversupply dominating a market and triggering a price decline that is touching pre-2003, sub US\$30/bbl levels. In December 2015, on the back of OPEC's decision in Vienna to disregard a production ceiling, Brent Crude prices dropped below US\$40 – ending at a seven

year low, with future prices appearing to be at a lower 'level for longer'.

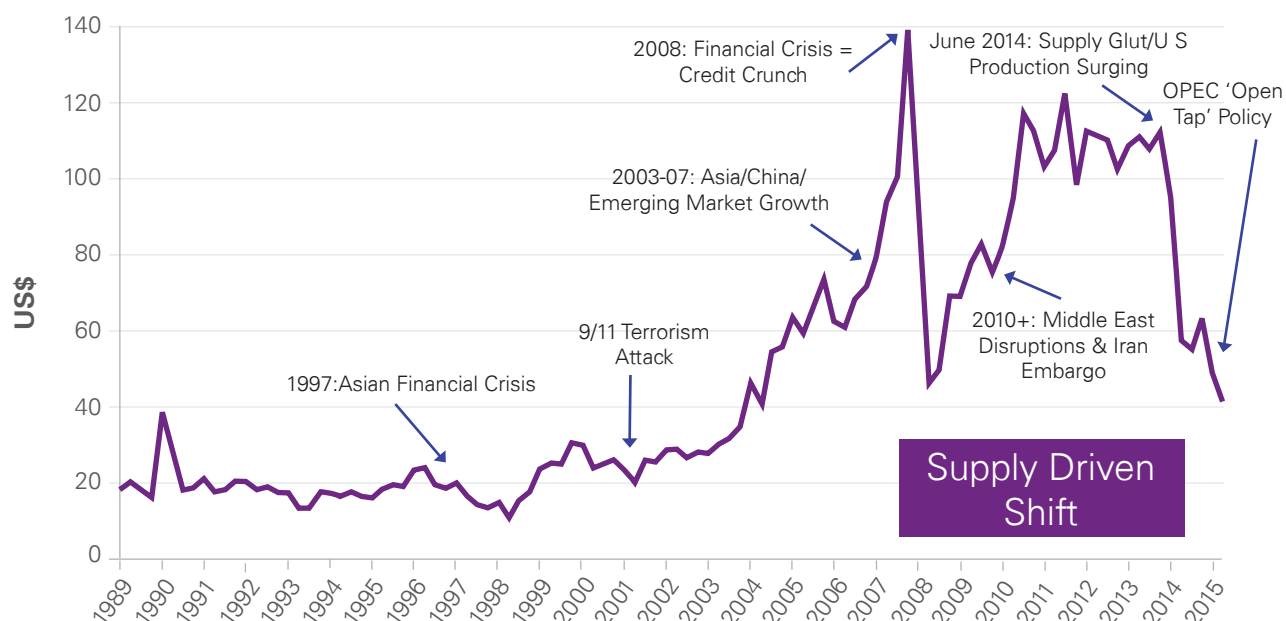
Today's price environment which is both volatile and returning to historical absolute low levels, is one many traders of this generation would not have experienced before. Oil traders, operating in an environment experiencing the longest supply glut in three decades, have been pursuing contango trading strategies by storing oil (floating and land) in anticipation that crude prices will rise in the future. This is based on the assumption that moving forward the fundamental value of oil is higher than current oil prices, and that in the longer term oil prices will continue to be higher - at US\$80/bbl or higher. This is generally consistent with the peak oil hypothesis, which

suggests that once the inevitable maximum level of oil production has been reached, depletion will follow and oil prices will hike.

However in the current oil price environment, similar carry-trade arbitrage windows will only remain open for relatively short periods, and will generally follow oil-shock events such as OPEC's no quota, 'open-tap' policy of the last year.

Looking ahead, as we approach the historical bottom of the market (US\$20/bbl), these opportunities will become less and less frequent. As a result, traders will need to have a mind-set shift in order to trade these markets.

Figure 3: Historical Brent Crude Prices



⁷ Market Update: Oil & Gas, August 2015, KPMG Global Energy Institute

China:

Implications of a Slowing Economic Powerhouse

China's Q3-2015 GDP growth, according to government statistics, grew by 6.9 percent on-year, an output developed countries can only dream of. In absolute terms, this is a robust economic result; yet, for an economy that has achieved regular double-digit growth for almost three decades and built a reputation as the 'manufacturing belt of the world', the economic, political and social implications of single digit-growth are powerful. Gradually, as China's economy matures, slower GDP growth will be, as President Xi Jinping proclaimed, the 'new normal'.

In recent months, China's economy has been afflicted by a barrage of sedate economic data. In September 2015, the closing reading of the Caixin/Markit purchasing managers'

index (PMI) was 47 – a 78-month low for the index, conveying the contractions of China's manufacturing sector. Indeed, in June 2015, falling new export orders and output led manufacturers to slash production at the fastest rate since November 2011.⁷

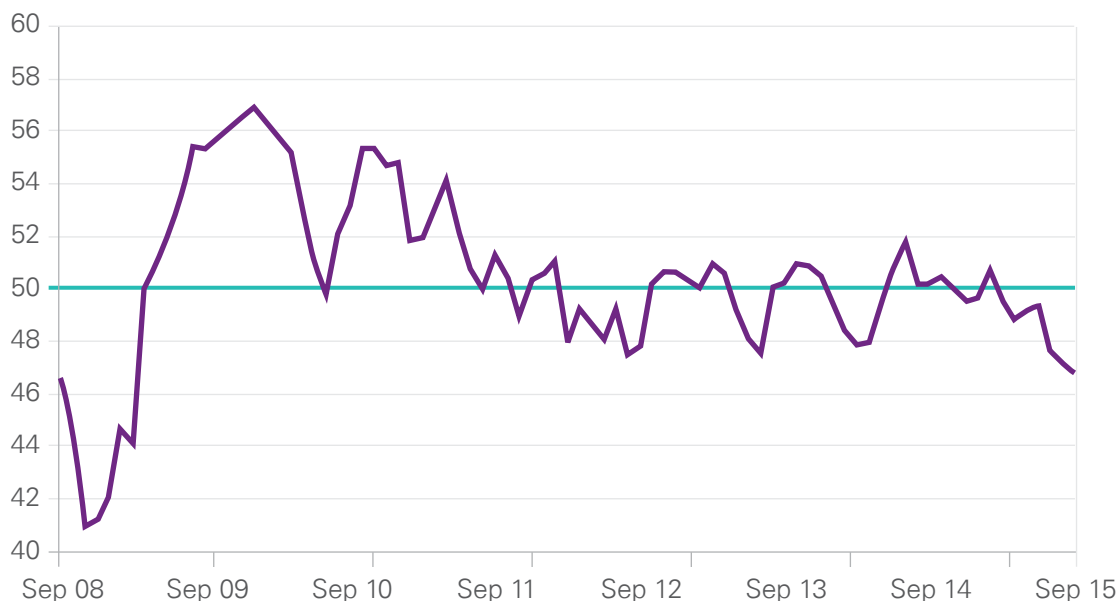
As China's economy slows and the US dollar strengthens, the country's demand for crude oil imports has declined, compounding the downward price pressures on international crude benchmarks. This is a bearish sign for the oil industry, particularly considering China is the world's largest crude and fuels importer. Nonetheless, the country's need for secure oil supplies will remain at the peak of the Government's agenda and therefore it is no surprise to see state-backed traders, banks and

companies expanding further into the world's global oil trading hubs and supply regions. Indeed, in November 2015, China's crude imports were up 7.9% YTD YoY. In addition, China has capitalised on low crude prices to build its strategic petroleum reserves allowing the country to strengthen its overall energy security.

Ultimately, a moderating and transitioning Chinese economy will add downward pressure on oil and gas prices. However, it is important not to underestimate China and to make the distinction that China's economic growth will be slower, not lower. China possesses a powerful combination of political and economic will that will likely ensure it remains the world's largest net importer of crude.

Figure 4: Caixin Purchasing Managers' Index (PMI)

Above 50 refers to expansion; Below 50 refers to contraction



Source: KPMG

Summary

Clearly, the global oil trading industry is experiencing substantial change. A blend of low commodity prices, capital requirements and increased price transparency has eroded margins, reduced arbitrage opportunities and modified the players participating in this competitive arena. Stringent regulatory measures have led to rising complexity costs and a tightening of the financing environment.

In response, the leading trading houses are adapting their core business model, status-quo trading patterns and risk management measures. To stay ahead of the competition curve, oil trading players are exploring innovative sources of capital. As larger trading companies continue to diversify their business model and develop assets along the value-chain to exploit the benefits of optionality, there is a growing trend towards alternative sources of finance, such as: M&A, private equity investments and strategic joint-venture partnerships.

Those players that are recalibrating their business structure for an evolving oil trading industry, re-focusing their business strategy, assembling strategic assets and deploying capital discipline will be best poised to both capture market opportunities and navigate through a tumultuous time.

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