THE DAWN OF A NEW ORDER IN COMMODITY TRADING – ACT II

WHY INTEGRATED COMMODITY PRODUCERS
MUST BECOME MORE ACTIVE IN ASSET OPTIMIZATION
AND TRADING TO SURVIVE

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Independent traders are about to force producers of commodities – especially oil, gas, minerals, and metals – through a paradigm shift

Imost every month since Baarbased commodity trader Glencore completed its \$80 billion merger with Zug-based mining giant Xstrata in May of 2013, independent commodity traders have bought about \$1 billion in assets from commodity producers. Traders are snapping up everything from zinc and coal mines to soybean crushing plants and wheat mills as the commodity-trading industry undergoes its largest transformation in 30 years. We first predicted this trend in "The Dawn of a New Order in Commodity Trading," which appeared in the Oliver Wyman Risk Journal in 2012.

One year later, continued investments in assets and a changing funding model are still reshaping the commodity-trading industry. But what is perhaps less understood is that these deals signal that independent traders are about to force producers of commodities - especially oil, gas, minerals, and metals - through a paradigm shift.

In the near future, we predict commodity producers will need to embrace the same sophisticated trading and optimization practices developed by independent commodity traders in order to remain competitive. To optimize their returns on assets, national oil companies, miners, and other integrated commodity producers will be forced to take better advantage of the options available in their networks. This means selling their commodities through long-term contracts, but also more proactively trading the commodities they produce and selling them through a wider variety of channels.

Once these new entrants forge new markets, today's \$38 billion commodity trading market could grow by about 40 percent. (See Exhibit 2.) But its margins will be reduced across all asset classes, sparking acquisitions and investments.

In fact, there is already a flurry of activity. As we predicted last year, no commodity trader has followed the same path as Glencore since it went public and raised \$10 billion in 2011. But independent traders such as Trafigura, Gunvor, and Noble Group have raised more than \$2 billion by issuing bonds in the past 12 months alone.

OPTIMIZING ASSETS THROUGH TRADING

Many international energy companies already recognize the importance of optimizing their assets. They have abandoned the assumption that they should only actively market their own production volumes and rely on third parties just to fill in their own supply gaps. Instead, these companies are focusing on energy trading as a lens to magnify how to maximize the value of their assets across their entire portfolios using both their own and thirdparty volumes, as well as all available sales channels. (See Exhibit 1.)

Energy players are doing this in part because independent traders' earnings are increasingly calling attention to the fact that commodity producers could earn potentially billions of dollars more by broadening their options for delivering commodities to clients. Consider: Almost every day a commodity trader somewhere in the world increases the value of a cargo of liquefied natural gas worth about \$30 million by as much as 25 percent by taking advantage of what the industry refers to as "optionality." The trader reroutes the cargo from one location to where a customer is willing to pay more for it. Or the trader earns a higher profit by customizing the cargo to a client's needs by delivering it within a specific time frame, blending different grades of the commodity, breaking up the cargo into smaller shipments, and by accepting specific payment terms. Or



the trader offers any combination of these options - always for a fee.

While the margins that commodity traders earn from LNG cargoes are extreme, the concept holds true across all commodities. Commodity traders are earning margins ranging from 0.5 to 1 percent on average – and in some markets up to 5 percent – by making use of all of the options available in their global networks. Through these networks, they have access to extensive commodity production assets, multiple customers, and a well-oiled logistics chain that rival those of many commodity producers.

By perfecting techniques to maximize profits from commodity production assets through trading, commodity traders have been able to build up a \$38 billion commodity trading market. We estimate that this market could grow to become \$54 billion as national

oil companies and integrated commodity producers become more active in trading, especially as they forge new markets in commodities that are less actively traded, such as minerals, metals, and LNG.

Today, the majority of oil and agricultural products are broadly traded. But commodity producers continue to market most of their coal, LNG, metals, and minerals through long-term contracts. Indeed, only 20 percent of LNG and less than 20 percent of minerals are actually traded on open markets.

BENEFITS BEYOND TRADING MARGINS

But the profits realized from developing more sophisticated supply, marketing, and trading techniques far exceed the pure gross trading margins of commodity trading markets. (See Exhibit 3.)

EXHIBIT 1: HOW COMMODITY TRADERS MAXIMIZE VALUE ACROSS CHANNELS

In The Dawn of a New Era in Commodity Trading last year, we explained that commodity traders make their money by taking advantage of a combination of "optionalities" such as leveraging real-time information for sales and negotiations, securing access to storage facilities to supply a commodity when it is worth more, and exploiting differences in price in different regions.

But the top traders do more than just maximize these options. They also optimize them across four sales channels:

OWNED ASSET



Traders evaluate whether to use their own commodity production in their processing assets, such as refineries, or to sell it into another channel and use thirdparty commodities.

DOMESTIC WHOLESALE



Traders sell and buy volumes from local players in regional wholesale markets.

INTERNATIONAL TRADING



Traders look at alternatives for imports and exports and use their logistical capabilities to move volumes from nearby and faraway markets.

B2B/B2C



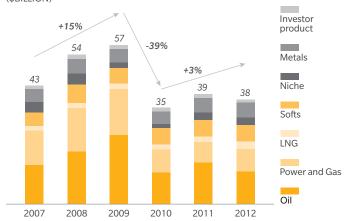
Traders sell to retail or business end-consumers on a spot basis as well as through longterm contracts.

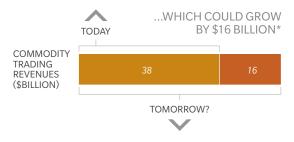
Source: Oliver Wyman analysis

EXHIBIT 2: TODAY'S COMMODITIES-TRADING MARKETS COULD EXPAND TO BECOME \$54 BILLION IF A LARGER PROPORTION OF COMMODITIES ARE ACTIVELY TRADED

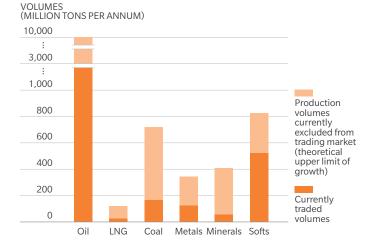
TODAY'S COMMODITIES-TRADING MARKET IS \$38 BILLION IN REVENUES...

HISTORICAL TRADING GROSS MARGINS (\$BILLION)





...AS MORE PRODUCTION VOLUMES ARE TRADED ON OPEN MARKETS



Source: Oliver Wyman analysis

* Assumes half of currently not traded volumes become available at half the current trading margins

For starters, integrated commodity producers can reduce their dependency on a limited number of buyers by becoming active in more markets. Today, many producers of commodities that are less actively traded often have nearly exclusive contracts with one counterparty in a single region. By gaining access and managing a broader group of channels and counterparties, integrated commodity producers can reduce the risk that they will be caught short, or stuck with oversupply, in a market downturn. As a result, they can keep their systems running more smoothly. This potential competitive edge is already prompting some leading national oil companies and mining companies to consider if they should pursue the development of their own sophisticated asset-monetization strategies.

Integrated commodity producers also gain an information advantage. While many commodities now have publicly traded prices, their real price often still differs. Not all barrels of oil sell for the Brent oil price – some will sell for 2 percent less, or for 3 percent more. (The price spreads for less actively traded commodities are even greater.) Integrated commodity producers that engage in trading are able to identify and take advantage of these spreads because they have a market presence on both sides of buying and selling. Developing the ability to capture even the average 0.5 percent spread on large production volumes can more than justify the cost of setting up a small trading, or "optimization," unit.

Just as important, integrated commodity producers that engage in trading manage their present assets better and make superior investments for the future. Trading improves the ability of leading commodity producers to identify and buy undervalued assets. Understanding the differences in valuation and using the optionality available also enables commodity producers to improve the returns from their present assets by not only balancing physical flows but also by exploiting arbitrage opportunities that exist with stored volumes.





EXHIBIT 3: BENEFITS BEYOND COMMODITY TRADING MARGINS FOR INTEGRATED COMMODITY PRODUCERS

MOTIVATIONS TO EXPAND TRADING MARKET PARTICIPATION



- Strengthen leverage with potential trading and transportation partners by accessing multiple markets
- Decrease dependency on handful of counterparties by diversifying supply

INFORMATION ADVANTAGE Bid/Ask of price benchmarks

- Be in the market and understand "real" price as seller and buyer
- Leverage advanced insights using derivatives for asset investments and sales intiatives



- Understand asset optionality and optimize in such a way as maximizes return for the company
- Extract more value from assets by understanding "trading" value of the assets - gain ability to identify undervalued assets



- Steer the company's overall $\,$ risk profile and reduce volatility if desired
- Create transparency on performance contribution of different activities

Source: Oliver Wyman analysis

For example, having natural gas storage gives a commodity producer a significant competitive advantage when there is greater demand during a very cold winter. Running a power plant at a lower load level can also significantly increase a company's bottom line overall, even if it might not be optimal from an operations point of view.

Finally, trading improves an integrated commodity producer's ability to manage risks because the transfer prices used internally between business units become more transparent. Refineries have a limited appetite for earnings volatility caused by oil price swings. Integrated commodity producers' trading units can therefore play a valuable role by hedging feedstock crude using derivatives in order to reduce the impact of volatile prices on their refineries' financial results. Some will even go one step further and monitor these hedge positions to capture additional value potential when it is available.

COMMODITY TRADING CHALLENGES

Why then, are many national oil companies and miners not yet participating in this increasingly lucrative playing field? Most don't realize the magnitude of the opportunity before them. They mistakenly believe that trading activities will add little to their bottom lines, require significant working capital, and create uncertainty. They are wary of establishing a business unit in which profits can swing to losses and back in a matter of days.

Trading does require significant working capital in the form of inventories either in storage or on ships. Standard payment terms vary across region and commodity, which also ties up working capital.

.HAVE A LOWER GROSS

Many integrated commodity producers also wrongly perceive physical trading to be a business of outright price speculation. Actually, traders often run flat books. This means they sell commodities at a market price with a buyer lined up, or "back-to-back."

To be sure, it isn't easy to develop sophisticated trading capabilities. Working capital allocated to an integrated commodity producer's trading business must be governed by effective limit management. Clear communication with the firm's top managers must be established. Attracting the right trading talent is also important, since trading is a people business.

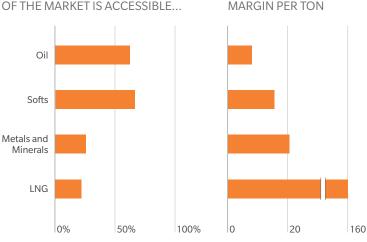
The commodity trading team must also be included in the corporate governance setup and culture of an integrated commodity player. Commodity producers need to proactively take the lead in educating the corporation about the potential value of commodity trading. Then, they must ensure that the systems and processes are in place for traders to have close interaction and cooperation with other divisions. Traders and commodity producers' managers must have an appreciation for each other's capabilities and be closely coordinated. Protocols, joint performance indicators, and transparent communication all need to be established so that together, they can correctly evaluate the importance of various decisions for their company's bottom line overall.

GREATER COMPETITION, **SMALLER MARGINS**

We predict that national oil companies, miners, and even large commodity consumers will have no choice but to develop more sophisticated trading capabilities to remain competitive. Indeed, we expect 5 to 10 significant new entrants across the Middle East, the former Soviet Union, and

EXHIBIT 4: ADDRESSABLE MARKET AND AVERAGE PROFITABILITY BY COMMODITY CLASS

MARKETS WHERE A LARGER SHARE OF THE MARKET IS ACCESSIBLE...



Source: Oliver Wyman analysis

Southeast Asia to begin to develop these capabilities over the next five years. To spearhead international expansion, more national oil companies will follow the lead of companies such as Baku-based SOCAR in setting up in-house trading capabilities. At the same time, the metals and mining trading space presently dominated by two players - Glencore and Singapore-based Trafigura – will be reshaped as more miners expand their trading capabilities to grab greater returns. (See our following story, Commodity Price Risk Management: The new front line for margin management on page 77 for more about how leading consumer goods companies are taking advantage of volatile commodity prices.)

But as competition increases, commodity trading margins will decline. (See Exhibit 4.) As more players develop the capability to optimize the returns on their assets, they will be able to price volumes better. They will take into account the "optionality" value when buying and selling assets, or entering into long-term contracts. As that happens, the

30 percent margins that traders typically earn from trading LNG and the 5 percent margins they earn from metals and minerals could become closer to the 0.5 to 1 percent margins that a trader earns trading a ton of oil. (See Exhibit 4.) Increased competition for third-party volumes will also contribute to eroding margins.

Integrated commodity producers will need to gain access to a variety of retail assets and customers with different buying preferences so that they can obtain "shorts" if a global oversupply develops. At the same time, commodity consumers seeking to enter this increasingly competitive field will pick

up different sources of supply to balance their portfolios and effectively capitalize on different commodity supply options.

As national and regional commodity producers gain a better understanding of the opportunities that exist to optimize the returns on their assets by developing more sophisticated trading capabilities, they will become less likely to sell large shares of their production in long-term contracts. Instead of giving away the value of the optionality of a guaranteed supply of a commodity, they will try to monetize this value themselves. This will put more pressure on independent players.

THE NEW ORDER

Add it all up, and it's clear that the rules for the commodity trading landscape are being radically rewritten globally as commodity producers and consumers become more active participants to mitigate increasing margin pressure. But independent traders will not sit still. They will continue to buy more assets and employ their trading capabilities to further increase their returns.

To remain competitive, integrated commodity producers and consumers need to take a lesson from existing traders. The large scale of many independent traders and their plans for expansion along the value chain may make it more difficult for commodity producers to enter commodity trading markets five years from now.

Those integrated commodity producers that develop the ability to optimize the returns from their assets by engaging in more sophisticated commodity trading capabilities now are less likely to be cut off from clients and will have less exposure

to potential oversupply in their markets in the future. Indeed, integrated commodity producers may develop a significant edge over the independent traders once they start to unlock the additional value in their already existing footprint.

To achieve this, integrated commodity producers may have to make investments in new capabilities and assets. But those that do will find the risks and requirements manageable and worth the effort. These companies will be able to add billions of dollars to their bottom lines and rewrite the rules for their industries in the process.

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