



intertwined in the energy sector – via the use of derivatives or not – causes a *direct* impact on the real economy. The potential *direct* impact of OTC commodity derivative trading by the energy sector on the real economy is generally seen to operate via the price mechanism – and more specifically through the risk of price shocks due to speculation on energy derivative markets. Based on earlier research in our 2011 study *Curtailing Commodity Derivative Markets*, we conclude that high systemic risk within the energy sector is mainly a problem for the energy sector itself. The high expected fraction of additional failing firms means that a localized adverse shock in the energy sector will have repercussions for more energy companies, and potentially for the energy sector as a whole. However, there is no empirical evidence that the defaults of energy companies will pose a direct negative externality to the real economy.

Contagion risk to financial sector – indirect impact

More important for the assumption that the energy sector would pose

systemic risk is the second question: whether there is contagion risk from the energy sector towards the financial sector. This would imply an *indirect* impact on the real economy. We find that, on average, contagion risk runs from the banking sector towards the energy sector and not the other way around. Moreover, compared to the food and construction sectors, the energy sector does not stand out in terms of contagion risk towards the banking sector. Because the use of derivatives in the food and construction sectors is much lower than in the energy sector, the results indicate that the mere use of commodity derivatives by firms in the energy sector does not seem to be an essential element affecting the magnitude of potential contagion.

Conclusion

The hypothesis underlying regulation of the energy sector – that the high use of commodity derivatives implies relatively high contagion risk from the energy sector towards the banking sector – is not supported by the empirical data. This provides

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‘... THE EXACT CONNECTION BETWEEN SYSTEMIC RISK AND OTC TRADING BY NON-FINANCIAL SECTORS REMAINS UNKNOWN.’

a first check of the need for financial regulation in the energy sector, and it turns out to be negative. However, further research into the nature of systemic risk in the energy sector is needed. We conclude that currently, from an economic point of view, both the need for, and the design of, EMIR lack conclusive analysis with regard to the inclusion of at least the energy sector. More generally, the exact connection between systemic risk and OTC trading by non-financial sectors remains unknown. The political haste in implementing strict regulation in the aftermath of the severe financial crisis is understandable, but continuing on this road without sound foundations is not.

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Cause and effect: the impact of European regulation

Peter Caddy

The European oil market is experiencing a veritable tsunami of new legislation and regulation which has not yet reached its full course and which will have profound consequences on the way oil is traded.

The impetus for the new European regulation comes out of two events. The first was the 2008 crude price rise to USD 147/barrel which destabilized the plans and aspirations of many European political leaders and led to accusations that the oil market

was either rigged or in the hands of odious speculators. The second was the 2012 Libor scandal which, although having nothing to do with oil, confirmed, to those inclined to believe that markets are inherently immoral, that action was needed to prevent fraud and manipulation. The distinction between financial markets and trade in commodities was then deliberately muddled by some European governments to surreptitiously extend financial market regulation into the trading of commodities.

Risks of moving to ‘rules-based approach’ for EU regulation

As a consequence, oil trading is facing a new regulatory regime. Instead of the traditional ‘principles-based approach’ of UK regulators, with an emphasis on market integrity, the European Union (EU) is instituting a ‘rules-based

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‘A RULES-BASED APPROACH PLACES THE EMPHASIS ON THE IDENTIFICATION AND PUNISHMENT OF WRONG DOERS ...’

approach', more in tune with the customs of continental Europe than the UK. A rules-based approach places the emphasis on the identification and punishment of wrong doers, on the assumption that this will produce a 'better' market.

There is an irony in that the USA, which has traditionally taken a rules-based approach to markets, is now trying to establish a principles-based approach to some regulation. The Commodity Futures Trading Commission (CFTC), which is responsible for the secondary legislation that emanates from Dodd–Frank, is continuing to write and enforce more Dodd–Frank rules but is also recognizing that rules can be over complicated and can lead to companies fleeing the market because legal risks and compliance costs act as major deterrents to participation. The rigid application of inappropriate regulation aimed at wrong doers can damage and even destroy market liquidity, not because there are wrong doers, but because the costs of compliance are borne by innocent parties who face risks should they accidentally fail to comply with what are often inconsistent and contrary legal requirements. In those circumstances, advise their legal counsel, it is better to avoid the danger by fleeing.

The European oil market regulatory environment is in the process of switching from the old Financial Services Authority (FSA) 'integrity of the market' approach to the new Financial Conduct Authority (FCA) approach designed to 'identify fraud and market manipulation' backed by new European legislation. But the costs imposed on the industry through capital requirements, position limits, collateral obligations, and the provision of data that the regulators require to monitor and supervise the market will damage liquidity in certain forms of trading. The industry will seek lower-cost risk management vehicles,

cheaper locations, and new forms of contract to avoid the costs and risks of the new regulation. An irony is that the EU has exposed its consumers to the unintended consequences of oil market regulation, despite not having prosecuted or secured a conviction for fraud or manipulation in the oil markets, even though there was intense political pressure to do so, and notwithstanding the 'dawn raids' on leading oil market participants.

EMIR, REMIT, MAR, MiFID, CRR/CRD IV, ...

Trying to follow the course of European regulation risks death by acronym. There is EMIR (European Market Infrastructure Regulation), REMIT (Regulation on Energy Market Integrity and Transparency), MAR (Market Abuse Regulation), MiFID (Markets in Financial Instruments Directive), MiFID II, the Capital Requirements Regulation and Directive (CRR/CRD IV) and the, as yet, unabbreviated proposed European benchmark regulation. This is in addition to the pre-existing legislation and regulation surrounding market manipulation, manipulating a benchmark, and exchange regulation.

The most impactful legislation will probably be MiFID II, and its consequences for the impact of CRR/CRD IV, followed by EMIR. REMIT, which affects gas and power markets, was essentially in place anyway through national requirements, and market manipulation was always illegal.

It is unclear what impact the EU benchmarking regulation will have, but it can only be to the benefit of the US and Asian markets, where regulators are clearly working to

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produce a more appropriate regime than in Europe.

EMIR was a response to the G20 leaders' call in Pittsburgh in 2009 that all standardized derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties. However, policy makers failed to grasp the fact that there is no obligation to trade standardized derivative contracts by the oil industry. And here lies the fundamental misunderstanding by policy makers in their attempts to regulate the market. Derivative trading in oil exists for a purpose – and that purpose is not speculation. Speculators may be active in the market, but derivatives exist to manage price risk. Derivatives are, or have been, a cost-effective means of managing price risk. But they are not the only option available to the industry to manage risk. And if they become too costly, or too legally risky, then the industry will manage its price risk through different means, much as it did in the USA through most of the last century.

Distinguishing physical commodities from financial markets

The oil industry, and the oil market, is much misunderstood in Europe, often deliberately so. The 2008 price rise, for example, was not simply speculators running out of control, but was a result of the industry's inability to produce sufficient diesel to meet demand. Similarly, the recent fall in crude prices to around USD 40/barrel is a consequence of the industry's inability to stop producing diesel when there is more than sufficient to meet demand. The misunderstanding by policy makers is caused by their inability to grasp the relationship between crude oil and products, and between the trade in crude oil and a refiner's call to meet product demand. Policy makers



typically only 'see' the futures price and therefore, almost by definition, everything else must be murky and incomprehensible, even though it is in full view to the industry and anyone who chooses to subscribe to a price-reporting service's market reports. As a consequence, policy makers view the world through a distorted lens and their responses become misplaced as a result.

Similarly, policy makers in Europe fail to understand the distinction between financial markets and the trade in physical commodities – confusing financial swaps with physical trade, and confusing physical price identification with the generation of a pure financial benchmark. This is creating major problems with the implementation of MiFID II legislation: from establishing position limits to position reporting; from defining ancillary activity to imposing restrictions and costs on such activity; and in defining what is, and what is not, a derivative. There will probably be similar problems of implementation when the EU benchmarking proposals become law.

Price risk management

Managing price risk is almost as important as managing volume risk for oil companies. It is 'almost as important' because it is easier than dealing with volume risk, not least because there are many ways of dealing with it. How and where companies manage their price risk is varied. It is not all through the European derivatives market, it is just that the derivatives markets have proven to be the most efficient and cost effective way of managing such risk. But if this ceases to be the case, then the industry will revert to other ways of managing price risk. This will mean that the outcome of the new European regulatory environment will have

been the undermining and potential destruction of the transparency and efficiency of derivatives in favour of less transparent and less efficient options, or the shifting of risk management to a different jurisdiction.

Companies that buy and sell along the supply chain in oil are not doing so in order to speculate on upward or downward price movements. They are producing oil at the top of the supply chain and then moving it, sometimes indirectly by trading it on, down the supply chain to the consumer. In doing so they are remunerated by taking the oil from where it is in surplus, such as at the well head, to where it is required, at the pump. Doing this carries inherent price risk.

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' A MISUNDERSTANDING OF THE PURPOSE OF THE DERIVATIVE MARKETS IN OIL LIES AT THE ROOT OF THE DIFFICULTIES IN THE EUROPEAN REGULATORY ENVIRONMENT.'
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This risk can be mitigated through a variety of means, only one of which is hedging the commodity through derivative contracts. A misunderstanding of the purpose of the derivative markets in oil lies at the root of the difficulties in the European regulatory environment. Policy makers think that derivatives determine the price of oil or 'are' the oil market. But crude oil is rarely sold through the futures markets. Even when physical delivery is possible, as with the Nymex crude oil futures contract, most crudes that are linked to this price will trade at a price differential to account for quality, location, timing, and contract terms. Try calling a Canadian crude producer in Alberta and asking if he is receiving the USD 50/barrel price of first month Nymex futures for his barrel of heavy synthetic crude.

Oil companies are involved in the physical supply chain. For companies in the supply chain, derivatives trading

is, if they participate in it at all, ancillary to their primary activity, even though this will likely not legally be the case according to the new MiFID rules going through Europe. And here lies the rub. Policy makers are defining activity in a legal manner, in the expectation that they can then instruct it to occur in a prescribed manner. But they fail to understand that companies can avoid such a prescribed manner by changing their activity.

Consequences of EMIR

EMIR has inadvertently – indeed, counter-intuitively for policy makers – already led to gas and power trade moving from MTFs (multilateral trading facilities) to non-MTFs, or into bilateral OTC (over-the-counter) contracts. The result may be that some small exchanges go out of business. Probably, business will become focused through one dominant exchange and there will be a concentration of the liquidity through the companies that have been prepared to absorb the costs of the regulation. MiFID II is likely to intensify this shift and extend it into oil. The capital requirement costs, the management and compliance costs, and the regulatory restrictions on position limits will reduce liquidity in standardized derivatives. There will probably be a movement of oil derivatives trade to exchanges out of the EU where banks, in particular, will be able to trade without the same restrictions imposed in Europe, and where trading costs will be lower. For oil companies, the focus will be on price risk management through non-standardized means such as embedded options in physical contracts, which will provide companies with the flexibility to shift trade flows, either through location or timing, to a more optimal market. Large oil companies are already writing contracts in this manner and producers

that refuse to offer this flexibility will be shunned or made to absorb the cost of bearing the risk of unhedged trade.

In practice this will mean that buyers will face locational arbitrage that will be too costly to manage through derivatives. Producers might have to sell on a delivered basis, taking the risk of timing of delivery and freight onto their own shoulders, and deals on an f.o.b. (free on board) basis will be limited to commodity traders who may not be able to bear the price risk purely through offsetting European-based derivatives, but only through back-to-back trades. This will inevitably result in producers having to accept lower prices, and consumers higher prices, because that will be the only safe way for the commodity supply chain to carry the risk. It will also probably result in variable pricing terms, or more pricing formulas, as commodity firms try to minimize their risk exposure and maximize their opportunities – the result of which will be less transparency. And all of this will increasingly occur outside the EU.

Intentions of EU policy makers – and consequences

European policy makers had desired to eliminate fraud and market manipulation, but their efforts will result in eliminating liquidity. It is the Vietnam War strategy in regulation: there may be a 'bad guy' in the village, even if he cannot be seen, so to eliminate him it is necessary to destroy the village.

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In Europe this is not necessarily considered to be a 'bad' outcome because 'trading' is regarded as an inherently suspicious, if not immoral,

activity amongst the political left and parts of the political right. There is a communication paradox when the industry and policy makers meet. Any discussion within the industry on price identification and market robustness will ultimately focus on the importance of liquidity, because liquidity brings transparency and robustness to pricing and provides the stability of depth of market. But most of the policy making infrastructure in the EU, whether at European Parliament level or within the Commission, is intrinsically distrustful of liquidity, as it is considered 'excessive speculation'. Imposing restrictions and costs on liquidity is often seen as a 'good' outcome by policy makers. Yet the new regulation, by affecting what the policy makers can 'see' (standardized derivatives trades), will have the unintended consequence of driving price risk management into formulations that officials cannot 'see', such as bilateral physical supply contracts with embedded optionality.

MiFID II and European benchmark regulation

MiFID II is law but has yet to come into effect; its impact will become apparent over the next two years. Not yet law, but in the process of becoming so, is the European benchmark regulation. This regulation is in 'trilogue', the process that seeks an agreed final text from the European Commission's initial proposals, and amended versions of the text from the European Parliament and the Council of Ministers.

The Commission's text on benchmarking law was issued two years ago and was a poor piece of legislative drafting. By failing to understand the difference between financial markets and physical commodity trade, the text was full of errors and misunderstandings. It was rightly criticized widely. The text has been heavily amended by both

Parliament and Council, to the extent that both have rewritten large parts of the proposals. The Council text accepts and understands that trade in commodities is different to that in financial instruments, and so reflects a better approach. But the Parliament has better third-country regime proposals; these will be critical, as trade in commodities is global and not confined to a single national jurisdiction.

Differences between EU and global approach

There will be unintended consequences from the EU's benchmarking proposals because Europe seems intent on deviating from a globally agreed and workable consensus on oil benchmarks. The G20 leaders' meeting in Seoul commissioned a work stream that produced a report known as the IOSCO Principles for Oil Price Reporting Agencies in October 2012. This report, produced by the International Organization of Securities Commissions (IOSCO), in collaboration with OPEC, the IEA, and the IEF, established a framework of best practices for producing assessments which are referenced by oil derivative contracts.

But IOSCO's 'principles-based approach' is considered inappropriate by Brussels, which favours a 'rules-based approach'. The European Commission, somewhat arrogantly, expects the world to follow its lead in designing legislation to codify these principles, and indeed to go substantially beyond them. Significantly, the position of the US administration, the US Congress, and the US regulator (the CFTC), is that no specific regulation on benchmarks is necessary or even appropriate. The IOSCO Principles for Oil Price Reporting Agencies work and should be allowed to work. Poorly drafted legislation will not work as intended, not least



because it has the potential to threaten what has hitherto been a secure flow of oil to consumers, by failing to allow the market to represent fundamentals through a freely determined open market price.

In practice what does this mean? Well, unsurprisingly the Americans seem to be getting it right on benchmarks, partly because they made their mistakes earlier in Dodd–Frank, and the CFTC have been trying to rectify some of these mistakes. The CFTC has also seen the unintended consequences on liquidity in financial markets, especially for US Treasuries, of restrictive legislation. The European Commission, as always, seems intent on making its own mistakes regardless of the impact on European citizens. It is noticeable that it is the elected European representatives, rather than doctrinaire officials, who are more concerned with the impact of bad regulation on people’s living standards. Much will now depend on whether the Europeans and the US authorities can create a workable third-country regime. If they don’t, it is likely to be European

companies and consumers that will suffer.

Record of industry success in maintaining supply

Keep in mind that there has been no market-induced breakdown in the supply of oil to the consumer in recent history, even during times of intense price volatility. This is a tribute to the industry, which has supplied oil to the consumer when production, transportation, and consumption have all been threatened by wars, political unrest, and misplaced policy. The industry has gained little public recognition for this. Ironically the biggest threat to the cost-efficient supply of oil to the European consumer now comes from a developing regulatory regime that was supposed to provide the consumer with protection.

It is feared that European regulation, however well-intentioned, is having and will continue to have consequences which are opposite to those envisioned by the policy makers. Liquidity will be reduced; transparency will decline;

volatility will increase; standardization of contracts will cease; physical commerce will remain off electronic platforms; and inherent risk will be injected into the market rather than removed.

Probable consequences of regulation

Oil will still flow from producer to consumer, but the direct costs of regulation and the consequential costs of carrying the new and implied risks will be borne by the consumer. Hopefully, for the consumer, the fall in the price of oil will to some extent offset these additional costs of regulation.

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‘WHEN POLICY MAKERS INTERVENE IN THE WORKINGS OF A FREE MARKET, THE EFFECT IS INVERSELY PROPORTIONAL TO THE INTENT.’

The basic rule of much regulation continues to true, especially when applied to global trade: when policy makers intervene in the workings of a free market, the effect is inversely proportional to the intent.



OTC derivatives market regulation and commodity derivatives

Orçun Kaya

In the wake of the financial turmoil, over-the-counter (OTC) derivatives have become the focus of attention. Indeed, the market size is gargantuan with a notional volume of USD 630 trillion, and it dwarfs the exchange-traded derivatives that have a notional volume of only USD 65 trillion. To date, a significant part of OTC derivatives trades has been handled by a small number of dealers that are the main counterparties of practically all other market participants. In the eyes of regulators and policy makers, the OTC derivatives’

market size, interconnectedness, limited transparency regarding the counterparty exposures, and market participants’ insufficient risk management practices have intensified the impact of the financial crisis and thus are potential sources of heightened volatility and systemic risks. Against this background, the G20 leaders agreed at their Pittsburgh meeting in 2009 to undertake reforms, intending to increase transparency and reduce counterparty risk in the OTC derivatives markets.

Early commitment, lengthy implementation

The main pillars of the derivatives market reforms are that:

- 1 all derivatives trades should be reported to trade repositories,
- 2 standardized OTC derivatives should be centrally cleared and traded on organized venues, and
- 3 non-cleared derivatives should be subject to higher margining requirements.

The Dodd–Frank Act in the USA, the European Market Infrastructure