



THE OXFORD  
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## Regulation of Oil Markets: Current Reforms and Implications

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### Session I: Inter-linkages between the physical and financial layers in the international oil pricing system

The debate about the post-financial crisis regulation of oil derivatives markets and its impact on the price formation process is strongly linked to the long-running discussion on speculation versus fundamentals and the nature and functioning of the current international oil pricing system. Identifying the inter-linkages between the financial and physical layers of this system is important, not only for understanding what determines the spot price of crude oil, but, crucially, also for devising an international regulatory framework that can improve the functioning of oil markets and pricing mechanisms.

The key questions underlying this debate, as laid out in the background paper prepared by Bassam Fattouh,<sup>1</sup> relate to the “financialisation” of crude oil, the extent to which global benchmarks are reflective of oil market conditions, and the role played by price reporting agencies (PRAs), such as Platts and Argus, in the oil price discovery process.

Over the last 25 years, a complex web of financial layers (paper markets) emerged around the major markers, West Texas Intermediate (WTI), Dated Brent and Dubai-Oman. Having grown in size, liquidity and sophistication, as well as having attracted a large and diverse set of players, these markets play an increasingly central role in the oil price identification process, as the information derived from financial layers is seen as essential for identifying the price level of the benchmark. As such, given that, unlike a pure financial asset, crude oil has a physical dimension, the futures markets should reflect existing supply-demand conditions through the process of arbitrage. However, the reality of the oil market is somewhat more complex; ‘current’ market fundamentals are never known with any certainty, the flow of data about oil market fundamentals is not instantaneous, and is often subject to major revision, which makes the most recent available data highly unreliable. This means that attention ought to be focused on the process of convergence and aimed at understanding what the spot price of a given benchmark really means in the context of the oil market.

Benchmark crudes constitute a central feature of the oil pricing system. They are used by oil companies and traders to price cargoes under long-term contracts or in spot transactions; by futures exchanges for the settlement of their financial contracts; by banks and companies for the settlement of

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<sup>1</sup> “An Anatomy of the Crude Oil Pricing System”, January 2011.

derivative instruments such as swap contracts; and by governments for taxation purposes. However, the issue of spot-price differentials between benchmarks – more than \$15 recently – has raised serious questions about how reflective benchmarks are of global market conditions and whether any given benchmark is more representative of these conditions than any other. This, in turn, relates to the issue of physical (il)liquidity in markets with relatively low levels of production, such as WTI, Brent and Dubai, and the extent to which they can be successful benchmarks for the price discovery process in the longer term, relative to markets with higher volumes of physical production but with limited spot trading, no forwards or swaps, and no liquid futures market since crude export contracts include destination and resale restrictions which limit trading options. These questions are thrown into sharper focus by the emergence of non-OECD countries as the main drivers of growth in global oil demand. With the notable shift in recent years of oil trade flows to Asia, it is unclear whether existing benchmarks are still appropriate for pricing crude oil exports to Asia.

The third and last dimension of the debate in this first session deals with the role played by PRAs within the current oil pricing system. Unlike the futures market where prices are observable in real time, the reported prices of physical benchmarks are “identified” or “assessed” by PRAs given that physical transactions cannot be directly observed by outsiders. PRAs use different methodologies in their price-assessment processes, and as a result different agencies may produce different prices for the same benchmark, with important implications for exporters’ revenues and financial flows between parties in financial contracts. These practices have raised serious concerns about the neutrality of the PRAs’ price-assessment processes, raising the question of whether these agencies act as “a mirror to the trade” or as actors able to enter decision-making territory and influence market structure.

The discussion in the first session generated agreement on the issue of rigidity in physical benchmarks and that stronger price signals often emanate from financial markets. Some participants raised the question of whether “we weren’t over-analysing” the oil market, suggesting there was nothing wrong with letting it function on the basis of existing rationales. However, others felt that the industry had a duty to explain how things worked and on how oil prices are formed to regulators and governments to ensure that any new regulation does not hamper the functioning of the market.

In similar vein, the inter-temporal dimension of the physical market was widely discussed. It was argued that the lead times and “forwardness” involved in international oil trading was the main source of inter-linkage between the physical and futures markets. The corollary of this situation is that information on fundamentals, when available, soon becomes irrelevant, creating a dislocation between the notion of transparency, called for by market actors/observers, and the realities of the oil market. This systemic difficulty is exacerbated by the inherent uncertainty about the global economy and by market risk, which often means that the consolidation of fundamentals data can take up to 2 years, as is illustrated by some international organisations’ revision of demand projections several times within a year. This, it was asserted, was likely to worsen with the shift of demand towards Asia – driven mainly by China and India – away from markets where data are more transparent. This is an area where governments can play an increasingly important role, anticipating demand growth and making data more readily available, as well as helping improve stocks and reducing short-term volatility. The US was referred to as an example of oil market transparency.

On the role of PRAs within the oil pricing system, it was suggested that the agencies wanted the reported price to reflect as accurately as possible the “right” spot price. The current pricing system being just that, a system, it was asserted that crude prices were the result of the interaction between the various components of this system, including PRAs.

The existence of different benchmarks was attributed to the tax reference price mechanism implemented in different markets and its relevance for the various market actors. In this regard, it was suggested that breaking the oil market into three components (Atlantic, Europe, and Asia), which are increasingly less interlinked, could help improve our understanding of the oil pricing system.

## **Session II: Regulation of commodities derivatives: Main features of current proposals**

Currently, there are two international regulatory agendas: a crisis-induced financial regulation agenda, and a commodity regulation agenda. These are embodied in the G20 Resolution adopted in the Pittsburgh summit of September 2009, the 2010 Dodd-Frank Act in the US, and the EU's proposal on over-the-counter (OTC) derivatives and market infrastructure.

European initiatives were contrasted to the relevant US legislation on commodity derivatives. By and large, attitudinal differences on both sides of the Atlantic were said to reside in the fact that, in Europe, the debate about the link between commodity prices volatility and financials is still ongoing, whereas in the US the agenda has already moved on to the "what to do about it?" side of the debate. Furthermore, the European legislation is concerned with both sides of the regulatory debate: volatility and financial markets on the one hand and "resource security" on the other.

The EU's approach is three-fold. It aims to regulate the OTC derivatives markets through enhanced oversight; to review the Market Abuse Directive (MAD); and to revise the Markets and Financial Instruments Directive (MiFID). It consists of the European Market Infrastructure Regulation (EMIR) and is to be largely implemented by the European Securities and Markets Authority (ESMA). EMIR's key recommendations include: a) greater transparency; b) financial derivatives ought to remain useful hedging instruments; c) better understanding of interaction between physical and financial markets.

In conclusion, it is possible to point to the following as the key messages from EU legislation:

- Focus on fundamental data particularly in areas seen as less transparent
- Market fundamentals a primary driver of recent price swings
- Can't rule out these swings are exacerbated by financialisation of commodities
- Accepting the positive role of derivatives in hedging
- Commodity and financial markets are increasingly intertwined
- Need for more fundamental data
- Little evidence that price formation has changed in recent years ("no smoking gun" despite pre-conceived ideas).

The areas where differences between the EU and US legislation were the most obvious include: the Volcker rule, OTC derivatives clearing and position limits.

## **Session III: Regulatory measures and implications for oil market structure, trading activity and prices**

Three main points which emerged from the morning sessions were proposed for discussion. The first involved the debate on regulatory oversight versus self regulation of PRAs. The second pertained to the role of benchmarks, which are based on voluntary and or informal information and whether this needs to be formalised, and, if so, what should be considered in the process. An example of an 'imperfect' benchmark that was put forward was the Retail Price Index, which, it was noted, although perhaps imperfect, is never revised. Financial markets appear to prefer this quality in a benchmark, as

opposed to an indicator such as the GDP deflator, which is frequently revised. The third point was to discuss the views of different market players; namely, PRAs, oil companies, and the banking sector, as well as regulators, on regulatory issues.

On PRAs, one point of view was that they are internally complex organisations, which have long anticipated volatility as a ‘cyclically’ occurring process and therefore already have internal preparedness for regulatory compliance. However, markets generally organise themselves to generate mechanisms for which there is a perceived need, including a price discovery mechanism. It was noted that any government intervention which leads to a mechanism that fails to serve its intended purpose could create more harm than good. It was also noted that although concerns have been expressed regarding the methods used by PRAs to report indices, which are largely based on the financial markets, the reality of the physicals market as an alternative is, that although large, it is extremely fragmented with different fuels and different seasonal specifications. The amount of liquidity in the physicals market as compared to the financials market is actually very small. A related concern was expressed over the role of trade repositories and whether market participants feel that they could obtain price information from these repositories. In this case, an insufficiently informed regulator could mislead the wider public by publishing potentially inaccurate information. The role of *choice* in assisting participants with making informed decisions was highlighted, and the role of PRAs was pointed out as being central to this. There was some disagreement over whether participants would consider trade repositories as sources of price information, rather than as purely having a ‘storage’ function; but the broader implication of regulating PRAs was brought up as a ‘bigger’ issue, giving rise to several questions: who can be a PRA? Would regulation affect the incentives of PRAs to disseminate information? And should regulation then apply to all energy markets?

There was a return to the debate on physicals versus financials (a point was raised with respect to partials) and the lack of connection between the two. It was also pointed out that there is a subtle difference between the ‘data-gathering exercise’ and the ‘devising of a mechanism’ for price gathering and discovery. This was disputed with the argument that when partials achieve a certain size, there is a contractual obligation for physical delivery to take place. And, that all hybrid instruments are rooted in the capability of giving or taking physical delivery and in the price convergence of the physical and financial commodity.

With respect to viewpoints from market participants on regulation, some concerns brought up regarded the *detail* of regulation, and its implementation, and their effects on incentives for the dissemination of information by PRAs, and on liquidity in the market. For instance, how would one deal with a situation where inaccurate information was passed on *without* intent, and how would the anticipation of the consequences of such a possibility arising, affect the flow of information? The response to regulation from oil companies would depend on whether they have an active trading arm. It was pointed out that the North Sea market is physically based, and attempts to bring it under a financial-market oriented mechanism could be damaging. A related viewpoint was that pre-trade data does not have any value to the market and that it may be inappropriate to release it. There was discussion about whether past and possible future high oil prices can be explained by fundamentals and the degree to which oil companies are concerned by this. In the banking sector, there appears to be a lot of uncertainty on how regulations will be enforced, and how the business model will therefore change. There is caution about whether extra regulations would come with extra costs, and whether the usefulness of derivatives may be reduced and made inaccessible to a wide range of companies; but there is also a sense of preparedness in terms of a ‘contingency plan’ to deal with these possibilities.

A general concern raised about government intervention was over the mandatory versus voluntary reporting of transactions; mandatory reporting could lead to a massive unfiltered block of information

and could involve a lengthy bureaucratic process that may freeze the market and prevent innovation. Hence it should be left to market participants to identify alternatives and make their own choices. This argument was disputed; governments may find other ways of intervening, and ‘choice’ is limited in any case. It was also argued that financial regulation has thus far not held back product innovation. Another issue relates to the fact that regulatory experience in Europe has been mainly in gas and power, and it is possible that Europe may end up with stricter models of regulation compared with the US. It was however pointed out that, on paper, the EU may be going down a less prescriptive route. Further, in general, only a very small proportion of the oil market has been subjected to regulation. Another concern raised was that of regulatory arbitrage, which has not been properly considered in the regulatory debate.

A consensus that emerged was the need for industry to engage with governments on the issue of regulation. Several points were made in support of this. (a) Governments tend to view the price of oil as that at the petrol pump regardless of *real* prices. There is a predisposition towards intervention. The oil sector has dealt well with price shocks, and to an extent, with volume shocks of the past (an example of the latter is the aftermath of Katrina). Industry needs a strategy to show that self regulation is working. (b) The issue of financialisation will be a recurring one, depending on future price movements. It may be useful to consider adopting a different ‘view’ on fundamentals; that is, ‘broad scope’ fundamentals which take into account factors such as global macroeconomics, currency exchange rates, expectations about these fundamentals etc. in influencing oil prices. Engaging in *that* debate as a whole is important for industry, and could be challenging as the discontinuities grow. (c) Although oil markets constitute a complex system of instruments, these have existed for roughly two decades and are not entirely new. They are however, new to regulators in Europe, who have everything to rediscover. The debate on other commodity prices (e.g. food) has begun in parts of Europe, and there is concern that ‘general’ regulations could be extended to all commodities. One suggestion on greater engagement was to encourage studies on PRAs by qualified independents, to explain their role.

The discussion was summed up as a debate on the role of efficient markets. Efficient markets can be interpreted as having two functions. One is its conventional function of price discovery, and the other is its function in terms of social outcomes. Questions which require consideration prior to regulatory intervention are: is there a case for political or regulatory intervention on the grounds of some sort of market failure, and, what are the alternatives? The role of industry in determining the latter will be especially important.

#### **Session IV: General discussion and summing up**

The final session began by returning to the role of physical benchmarks, which in a sense underpin all the main debates; why are they needed, and what do they do. Things are likely to change if governments intervene, and a useful way of thinking about benchmarks could be to consider what would happen if they did not exist. In a broader sense, the shadow of the current recession has led to an increased emphasis on the functioning of the market – but it could be that the problems lie elsewhere. In agricultural markets, volatility has been approached through demand and supply (either successfully or unsuccessfully); similarly, in oil markets, it may be that the focus should be in areas such as storage.

It was argued that the derivatives market may not have existed without benchmarks; this was disputed, as markets are likely to have organised themselves to carry out this function in some other way. The question then raised was whether the oil market has the ‘right’ benchmarks. Although benchmarks may be imperfect, one argument is that they do work, although they may lack certain desirable

characteristics. One potential weakness is that the industry lacks a benchmark in Asia, but this is not something that cannot be addressed in the future, or that seriously affects the existing system.

It was argued that benchmarks are ‘objects of their own history and serendipity’. For instance, a counterfactual history would have seen the LLS become a main benchmark, and the Brent futures market itself took three attempts to successfully develop. Given this, a list of the main ‘desired characteristics’ of a benchmark are: (a) It can be resold (b) It does not have dominant buyers or sellers (c) It is somewhat aligned with fiscal regimes (for example, Brent evolved as a result of efforts to create an acceptable taxation reference price) (d) It is ‘hedgeable’ (there is no point in creating something that cannot manage its own risk, at relatively low cost and high efficiency) (e) It should not be in a country that is politically unstable or under sanctions (f) It should be fungible (g) It should have the ‘infrastructure’ necessary for export and arbitrage. But as mentioned earlier, it is difficult to consider benchmarks separately from their evolutionary history.

Arguments were made for alternatives to benchmarks; benchmarks can be an esoteric concept and have undergone several modifications into hybrids. The regulation of these hybrids would then add another layer of complication to an already complex structure. There could be scope for simplification if attempts were made to organise a more visible market which does not require PRAs to play a paramount role; this could be done if the industry could get producers of major crude oil streams to allow crude oil to be traded. The role of Asia in the future of the oil market could also be taken into account in this type of market organisation. A related issue is then whether producers should have a stronger influence on price and one view was that even auctioning small amounts of oil, for instance, is bound to yield a price discovery mechanism. Several producers could sell their oil at regular auctions in this organisational setup; however, it was noted that oil producers have thus far stayed away from the role of ‘price leaders’.

In conclusion, there is certainly some anticipation of government intervention in the near future. The question over *how* to regulate and *when* to regulate is an ongoing debate, particularly with a view to potential EU regulation, which on paper appears to be less prescriptive than US regulation. There is a general consensus on the need for industry as a whole to engage with governments on the issue, and there is at present a small window of opportunity for industry to enter proactively into the debate.

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