Joint IEA-IEF-OPEC Report

on the Workshop

"Interactions between Physical and Financial Energy Markets"

21 March 2013, Vienna

Executive Summary

OPEC, the IEA and IEF jointly hosted their third high-level technical Workshop in Vienna on 21 March 2013. This event brought together a broad range of experts from industry, regulatory agencies and other branches of government, academia and the financial sector of the developed and developing economies to discuss the interactions between physical and financial energy markets. The Workshop built on the insights gained from the previous two Workshops held, respectively, in London in 2010 and Vienna in 2011.

Discussions, which were held under Chatham House rule, helped highlight the range of views regarding the interactions of physical and financial energy markets. Participants expressed the view that derivatives and physical transactions both play a role in oil price discovery. In contrast to the 2007-2009 period, short-term volatility has eased significantly and longer-term prices on the back-end of the forward curve are also more stable. However, there are still many uncertainties regarding a host of fundamental and non-fundamental factors that can impact spreads between spot and forward month prices.

Discussions also highlighted the change in commodity investment strategies over the last 10 years. Corporate hedgers and institutional investors have, on average, become more sophisticated in their market approach. Increased correlation across asset classes and lower volatility has been a challenge for 'pure strategy' commodity traders at funds. As a result, there are now more macro- and multi-strategy funds. When investment in commodities as an asset class took off around 2003, portfolio diversification was a key rationale for investing in commodities. Today, many institutional investors rank inflation hedging as one of their top concerns.

While liquidity in futures markets is concentrated in the front months, the type of liquidity needed by industry participants spans the five-year horizon, a period which broadly corresponds to the typical investment cycle.

With regards to regulatory reform, its stated objectives are to bring regulations in line with developments in market structures and technology and ensure that markets remained fair, competitive and efficient. The goal was to enhance transparency and improve oversight to facilitate hedging and price discovery and avoid manipulation. Discussions suggested that, while regulations seemed to be on a converging path across the main regional markets, the implementation process left room for improvement. Specifically, some participants voiced concern about the risks of unintended consequences, such as a possible sharp reduction and fragmentation in market liquidity. Similarly, they noted that financial regulatory reforms have raised the cost of compliance, and that increased clearing of OTC through the exchanges, while providing greater transparency, had raised margin requirements, making it a challenge for market participants to secure the necessary capital and raising the cost of doing business.

With regard to Oil Price Reporting Agencies (PRAs), it was noted that the G20 initiative on this issue had entered the implementation phase, which would include a review of the extent of implementation as well as an external audit. Within the broader discussion on financial benchmarks, the differences between PRA assessments and financial market benchmarks such as Libor were acknowledged, although it was also recognized that the price assessment process could be subject to vulnerabilities and hence on-going efforts were warranted.

Discussions covered the various efforts to develop or establish oil futures markets in Asia that reflect regional supply/demand fundamentals, attract sufficient liquidity including broad participation by international investors, and allow for physical delivery.

At the conclusion of the workshop, the organizers thanked the speakers, moderators, and participants for the open and fruitful discussion on this complex and evolving subject. The organizers looked forward to the next Workshop in this on-going series.

I. **Background**

Given the dual role that crude oil increasingly plays as a physical commodity and a financial asset, the International Energy Agency (IEA), the International Energy Forum (IEF) and the Organization of the Petroleum Exporting Countries (OPEC) have recognized the need to improve the understanding of the evolving interactions between physical and financial markets for energy. To this end, they have agreed to jointly hold workshops to discuss this complex and evolving issue, as well as to hear from regulators about ongoing effort to enhance regulation and oversight in the financial commodity markets at the national and international level. This effort forms part of a wider joint work programme endorsed by Energy Ministers at the 12th IEF Meeting in 2010 as part of the Cancun Declaration.

As a result, the IEA, the IEF and OPEC convened joint workshops in London in 2010 and in Vienna in 2011. These workshops brought together a broad range of market views from distinguished experts with different backgrounds and affiliations. Noting the increasing interaction of the physical and financial energy market, participants in the first Joint IEA-IEF-OPEC workshop recommended to continue the ongoing effort to better understand the functioning of each of these markets, as well as the interaction between them. It also recommended the enhancement of international cooperation on market data transparency, such as the promotion of the Joint Organisations Data Initiative (JODI). Furthermore, the first event highlighted the notion that regulations have an important effect on market functioning and participants' behaviour and emphasized the need for appropriate regulation and the release of more frequent and high quality market data, which would benefit all market participants. It commended the international coordination on financial market regulation.

The Second Joint IEA/IEF/OPEC Workshop on the "Interactions between Physical and Financial Energy Markets" was convened in Vienna on November 29th, 2011. Discussions considered the extent of the impact of speculative activity in the oil market, with a range of views expressed regarding the factors driving oil price movements, including fundamentals and the financialization of commodities. While recognizing the role of fundamentals in setting price trends in the longer term, discussions acknowledged the impact that the financialization of commodities has had on the oil market, including short-term price movements. The Workshop concluded with an overview of emerging issues and key challenges facing both financial and physical energy markets, including implications for the energy markets of the structural change in supply and demand dynamics, as well as the impacts on broader commodity markets of the financial crisis facing developed economies. Participants noted the ongoing effort on regulatory reform in the financial and derivatives markets and stressed again that international coordination of regulation was essential to avoid loopholes and unintended consequences. Participants recognized that continued cooperation and active dialogue are key to better understand the concerns of all parties and enhance oil market stability.

II. **The Third Workshop on "Interactions between Physical and Financial Energy Markets"**

The Third Workshop on the Interactions between Physical and Financial Energy Markets, jointly hosted the IEA, IEF and OPEC in Vienna, Austria, on 21 March 2013 brought together a broad range of experts from industry, regulatory bodies and other government sectors, academia and the financial industry of the developed and developing economies to continue the research on the evolving interactions of physical and financial energy markets. The Workshop built on the

insights gained from the previous two events. Discussions were held under Chatham House rule to encourage an open and informative exchange of views.

The Workshop began with a session reviewing the changes that have taken place over the last 10 years since the financialisation of commodity markets had begun in earnest. Participants considered the factors that have been driving the increasing correlation among commodities and between commodities and other asset classes, as well as the effects that monetary stimulus were having on commodity prices, including oil prices. Changes in investment strategies and the makeup of participants active in the financial markets were also examined.

The second session provided an update on regulatory reform, at both the national and international levels. Regulators provided insight into the remaining implementation challenges for new regulation and an assessment of coordination efforts across regions. The status of the G20 initiative on oil Price Reporting Agencies (PRAs) and IOSCO-led efforts to establish a framework of reform for financial benchmarks in the wake of the Libor scandal were also noted.

The third session was an active panel discussion which considered a number of emerging issues affecting the interaction of physical and financial energy markets. This included the increasing 'futurization' of the swaps market; how the evolution of energy markets had changed the role and strategies of hedgers and other market participants; and issues regarding financing commodity trade in an environment of higher reserve and margin requirements.

In the fourth session, Workshop participants considered developments in energy derivative trading in Asia. Updates were provided on the development of energy derivatives in and around Asia. The various approaches adopted by key Asian trading hubs toward derivatives trading were also presented.

III. **Summary of discussions**

Discussions helped highlight the range of views regarding the interactions of physical and financial energy markets. Participants expressed the view that derivatives and physical transactions both play a role in oil price discovery. They noted that despite the size difference between the physical and derivative markets, the markets work reasonably well. Derivatives serve as a tool for multiple price arbitrages. The motivations of financial players to invest in oil as an asset class are diverse and can cause prices to become disconnected from fundamentals or to exacerbate their movements, whether upward or downward. Investors use oil and asset classes such as equity index-related instruments to express a view on global macro-economic conditions and prospects, thereby increasing correlation across these asset classes. Increased investment flows based on technical analysis can also make the price behaviour itself to become a driver of prices.

Several participants noted that in contrast to the 2007-2008 period, short-term oil price volatility had eased significantly, and that longer-term prices on the back-end of the forward curve had also stabilised. However, uncertainties regarding a host of fundamental and non-fundamental factors can lead to more volatile spreads between spot and forward month prices.

Discussions also highlighted the change in commodity investment strategies over the last 10 years. Commodities markets have become accessible to a larger group of traders; barriers to entry have dropped; and access to price information has become faster, more transparent, and less

preferential, due in particular to the use of electronic trading platforms. Additionally, corporate hedgers and institutional investors, on average, have become more sophisticated in their market approach. Increased asset-class correlation has become a challenge for funds managed by 'pure strategy' commodity traders. As a result, there are now more macro and multi-strategy funds. When trading in commodities as an asset class took off in 2003, portfolio diversification was a key rationale for investing in commodities. Today, that rationale has changed with most institutional investors citing inflation hedging as their key concern.

It was noted that, while the liquidity in the futures markets was concentrated in the front months, the type of liquidity that the industry participants needed was on the investment-cycle compatible horizon of five years out, although it is not clear whether such liquidity exists that far forward. However, if it were to exist and producers of tight oil or oil sands were able to hedge their price risk, then this would provide a good indication of the industry view of the true cost of marginal production.

With regards to regulatory reform, the stated objectives were to update regulation in light of developments in market structures and technology in order to ensure fair competition and efficient and safer markets, as well as to improve transparency, market functioning and oversight in order to facilitate hedging and price discovery. On-going discussions indicated the likelihood of a general convergence in regulation among the various regions; however, there were still room for improvements as implementation moves forward, particularly with regard to Over-the-Counter (OTC) derivatives. Despite setbacks in some jurisdictions, regulators also expected to establish some form of position limits for commodities, such as oil, which would include exemptions for commercial activities. In moving forward, regulators and market participants remained concerned about the risk of unintended consequences that might, for example, considerably reduce or fragment market liquidity, reduce competition and increase capital costs.

The changing role of regulators was noted, with regulators no longer seen to be outside enforcement bodies but were now more integral part of the functioning of the market. It was noted that increasing financial regulation had raised the cost of compliance for market participants. Moreover, while increased clearing of OTC derivatives through the exchanges had provided greater transparency, the higher margin requirements have created a challenge to secure the necessary capital and increased the cost of doing business.

With regard to Oil Price Reporting Agencies (PRAs), it was noted that the G-20 initiative on this issue had entered the implementation phase. This will include a review of the extent of implementation and its impacts, as well as an external audit. Within the broader discussion on financial benchmarks, the different nature of Oil PRA assessments and financial market benchmarks such as Libor was acknowledged, although it was also recognized that the price assessment process could be subject to vulnerabilities and hence would need to be strengthened. Participants noted that IOSCO is in the process of reviewing the way that financial benchmarks are created – including benchmarks referenced in commodity derivatives – with the objective of preventing conflicts of interest, reflecting the economic reality and using them appropriately.

A review of the evolution of physical and financial oil markets in Asia since the late 1990s was provided. The decline in production in Asian market crudes, such as Dubai, Minas and Tapis, in mid-2000s was noted, along with the inflow of arbitrage cargoes from West Africa and the Mediterranean, and the increasing use of Dated Brent in some Far East producers' official selling price formulae (OSPFs). In contrast to the European market, hedging in Asia need to take into account the considerable distance between the supply point and the destination, as well as Very Large Crude Carrier (VLCC) freight economics. In addition, Asia is a complex geographic region

from currency, regulatory and economic perspectives as certain economies have to contend with over-arching national objectives, such as balancing national budgets and social concerns. Discussions highlighted various efforts to develop or establish crude futures markets in Asia that reflect regional supply/demand fundamentals, attract sufficient liquidity including broad participation by international investors, and allow for physical delivery.

IV. **Conclusion**

At the conclusion of the workshop, the organizers thanked the speakers, moderators, and participants for the open and fruitful discussion on this complex and evolving subject. The discussions were informative and provided a unique opportunity to bring together a broad range of views from industry, governments, academia, financial institutions, and regulators. The organizers looked forward to convening the next Workshop in this on-going series.