


IEF THOUGHT-LEADERS ROUNDTABLE ON GAS



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DIALOGUE INSIGHTS

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MAIN DISCUSSION TOPICS AND FINDINGS

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1. KEY INSIGHTS

- It is difficult to talk about gas in isolation because of its links to electricity, coal and renewables, but gas is far from being only a bridging fuel. Gas is here to stay.
- An integrated global gas market is not likely in the near term. The three main gas regions – North America, Europe, and Asia- will remain with their own sets of fundamentals for some time.
- The regionalisation of gas markets does not imply lower interdependence: in the US, cheap gas displaced coal; but in Europe cheap US coal has displaced gas. The energy mix in one region depends on the energy mix in another.
- In North America, the UK, and increasingly in Europe, trading at hubs has provided liquid and transparent pricing information. This source of transparency has been slow to spread to the rest of the world.
- In the US, deregulation and the financialisation of the gas market helped to establish a price based on fundamentals.
- The logic for establishing a regional gas-pricing hub in Asia is questionable, given the small number of buyers and sellers in the region.
- Oil-indexation of gas prices has clear merits, but with current oil prices and the current economic downturn some companies have won business by applying a more flexible formula.
- Incremental demand for natural gas over the coming decades is projected to come primarily from non-OECD countries, with Asia and the Middle East playing a leading role.
- Shifts in regional demand patterns and increasing global LNG trading suggest an urgent need for more data on a global scale – which is why the 2013 launch of JODI-Gas will be timely.
- Prospects for natural gas consumption are still tied to its application as much as to its relative price. Gas usage depends heavily on an anchor technology, such as electricity generation.
- There are conflicting messages about gas in the market place, from concerns about the environmental impact of “fracking” to the perception that gas is a clean fossil fuel.

2. EVENT BACKGROUND

The gathering in Paris was the first in an ongoing series of “IEF Thought-Leader Roundtables” designed to elicit insights from elite conversations among small groups of industry experts, and then have the IEF share those insights with stakeholders worldwide. The IEF Roundtables were inspired by the realisation that the most valuable points one learns at large conferences and events are quite often picked up during coffee breaks or smaller scale interactions. Accordingly, through the IEF Roundtables we endeavor to distill the key findings from an “extended coffee break” and share those points with all actors in the global energy dialogue – with the ultimate objective of facilitating what we at the IEF call “decision-finding” at all levels.

The impact of a technology-driven step-change on the global outlook for gas, coupled with unfolding shifts in gas market variables (such as pricing mechanisms and LNG trade), made gas the ideal subject matter for the inaugural IEF event.

3. GAS IN PERSPECTIVE

The roundtable discussants – virtually all industry veterans – acknowledged that while natural gas is often discussed relative to other energy sources, this should not detract from the importance of gas to the world energy mix. One speaker noted that gas used to be written in three words (gas and oil); it was subsequently written in three letters (gas); now it is again written in three words (gas and electricity). Though it is difficult to talk about gas in isolation because of its links to electricity, coal and renewables, there was shared sentiment in the room that gas is far from being what some market observers label a bridging fuel. Gas is here to stay.

4. INNOVATION AND TECHNOLOGY

Participants discussed the importance of technological advancements on the gas industry, and cited the example of the shale gas revolution in the United States. The focus of the conversation then shifted to China, which holds significant potential for shale gas production. Some discussants believe that the Chinese are currently waiting for the price of shale gas technology to drop. Once that happens, they may buy the necessary technology and seek to exploit their shale gas reserves in earnest. That said, China’s shale gas production targets were viewed by some as quite ambitious, especially in light of the complex geology of its shale basins, the shortage of water, lack of existing infrastructure for transporting gas to the market, and challenges associated with managing environmental impacts.

5. PRICE FORMATION AND REGIONAL MARKET INTEGRATION

The issue of natural gas price formation has been grabbing headlines recently in part because – as was frankly discussed in the roundtable – policymakers and politicians are put in a tough position when asked why their countries are paying above spot prices for gas. The industry’s quite logical explanation for the traditional pricing structure is that gas projects are large, expensive, and risky with a long lead-time before maturity. The infrastructure required for the successful delivery of major gas projects is heavily capital intensive. With the monetisation of reserves taking from 10-15 years, adequate and sustained support from the financial sector is a prerequisite for the successful fulfillment of market expansion plans. As we know, historically the massive investment requirements have favoured the use of long-term oil-indexed take or pay contracts over spot market pricing.

Recognising the current pressures on the oil indexation system of gas pricing, participants noted that while liquidity levels at the nascent gas hubs in Europe are currently low, the number of gas contracts in Europe based on spot pricing is expected to surpass the psychological 50% barrier this year – and should continue its upward trajectory. The participants openly discussed some realities of spot pricing. There is of course no guarantee that spot prices will be below prices set through long-term, oil-linked contracts. Hubs work best where there are many suppliers and many consumers. In the US this has worked well, as deregulation and the financialisation of the gas market (in particular the development of spot and futures markets) helped to establish a price based on fundamentals. In Europe, hubs are developing slowly, but in Asia the buyers are to a large extent China, Japan and Korea, with supply

coming mainly from Qatar. Thus, with a small number of buyers and sellers, some thought-leaders questioned whether or not there are enough buyers and sellers to justify a hub in Asia.

What's more, the viability of a single global market for gas was considered doubtful because the relative immaturity of the markets and uncertainty over basic supply, demand and regulatory factors combine to hinder the concept of a one-size fits all market solution. Despite recent increasing volumes of traded LNG, the elusive prospect of one global gas price has not materialised and appears unlikely to take shape anytime soon. The rapid growth of shale gas in North America has slowed or reversed the move toward globalisation and price convergence – engendering a “re-regionalisation” of the international LNG market.

One key observation made was that the global oil market took many years to develop and mature. Gas markets will also have to work through the learning curve of market fundamentals to develop a similar structure over time.

6. ADVOCACY, COMMUNICATIONS AND ENGAGEMENT

The future role of gas, its place in the energy mix and the rate of gas market development are all influenced to some degree by the general public's perception of the costs and benefits of gas usage. Currently there are confusing signals about the potential environmental benefits of gas, with the debate over “fracking” (hydraulic fracturing) perhaps over-shadowing the core message that “gas is a clean fossil fuel”. Beyond explaining the process of gas extraction through fracking and providing reassurances of best practices, efforts must be made to heighten public awareness about gas's positive attributes – including the favourable impact that gas can have on CO₂ emission levels.

7. CAN GAS COMPETE WITH COAL?

Despite the European Union's strong stance on targets for renewables, it seems that in the midst of an economic downturn political pragmatism has come out on top and the push for renewables (supported with subsidies) is faltering. In the absence of a robust carbon price, Europe is experiencing a counter-intuitive rise in the popularity of coal over gas.

It is ironic that the triumph of gas over coal in the US has effectively undermined an already weak gas pricing position with respect to coal in Europe, as the shift in US demand patterns and low coal prices presents an arbitrage opportunity that sends US coal across the Atlantic to easily undercut higher (oil-indexed) European gas prices.

It seems that in times of economic crisis, and with cheap coal and LNG in relative abundance, politicians cannot be expected to back the idea that the industry or the consumer should be asked to pay a higher carbon tax. Unfortunately for gas, this reaction to short-term fiscal tribulations is impacting the long-term prospects for the clean burning fossil fuel in Europe – as the level of uncertainty over the cost of CO₂ and the share of renewables in the future energy mix is already impacting investment decisions.

Gas use in Asia is still relatively low. China currently burns close to half of the world's coal, making it a potentially huge market for gas. The shale-gas potential of China and Saudi Arabia may yet play a major role in deciding the future direction of the regional energy mix. However, with insufficient infrastructure in place, gas has a lot of catching up to do.

8. SUB-OPTIMAL FUEL USE IN THE MENA REGION

Participants noted the importance of discussing the implications of the following trends that have potentially global impacts:

- MENA countries burning oil to generate electricity and desalinate water.
- The use of coal to generate electricity in China and India.

- Flaring of gas in Algeria.
- Lack of a robust electricity network in Iraq.
- The use of open cycle power generation in Egypt rather than combined cycle technology.

A more efficient energy system for these countries — indeed, for any country — would have the diversity of available energy resources applied where they can bring, for example, more electricity or water per unit of energy used while simultaneously protecting the environment.

9. INTERACTIONS WITH OTHER FUELS AND INTERDEPENDENCE

Gas and Oil. The shale gas revolution, which transformed the US from the biggest gas importer into a potential net-exporter of LNG, did not occur in isolation from the world oil market. In line with recent oil price levels, gas pricing in the US has been effectively subsidized to the extent that much of the shale gas coming out of the ground is wet — with companies targeting the resources containing high levels of liquid hydrocarbons to compensate for low gas prices. This is one example of the very natural interaction between oil and gas markets.

Gas and Nuclear. There may be very few countries actively pursuing a nuclear future at this time, but those that are include China, India and Korea — with almost 40% of the world’s population within their borders. Although there is competition between nuclear and coal/renewables, the gas/nuclear interplay is not very evident (except perhaps in Asia).

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Participants in the IEF Thought-Leaders Roundtable on Gas in Paris included Ambassador Richard Jones, Warner ten Kate, Ken Koyama, Olivier Appert, Jerome Ferrier, Stuart Brooks, Glen Sweetnam, Collin Lyle, Pedro Moraleda, Anthony Yuen, Aldo Flores, Zack Henry, Namat Al-Soof and Simon Stoddart.

The insights presented in this Brief are for general reference on the diversity of perspectives expressed, and should not be interpreted as reflecting the participants’ consensus nor the specific views of the organisations that hosted the event.