



GLOBAL ANALYSIS

Why a Gas Troika and cartel will prove to be hot air...

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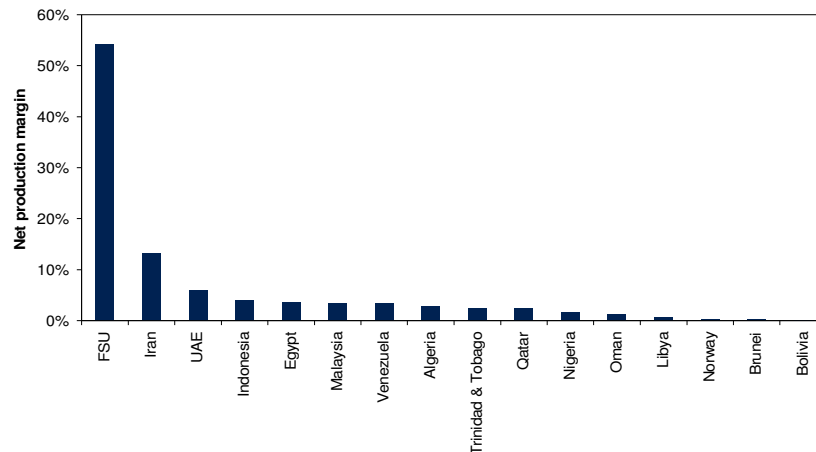
WHY A GAS TROIKA AND CARTEL WILL PROVE TO BE HOT AIR...

Despite endless media speculation that the world is about to witness the formation of a gas 'OPEC' spearheaded by a 'troika' of Russia, Iran and Qatar, such speculation is vastly overblown. Russia is currently working on a draft charter for the Gas Exporting Countries Forum (GECF) to sign off on in late November 2008 before the forum next meets towards the end of the year. Such developments will no doubt be written up in the media as a further step towards a fully fledged cartel, but in reality, any process of cartelisation remains a highly unlikely process due to structural impediments and geopolitical divides between producer states. This is not only the case for the nascent troika, but more fundamentally, for the whole concept of a Gas Exporters Country Forum.

What the GECF is, and indeed, isn't

Despite the endless column inches playing up the prospects of the GECF, behind this veneer of structural co-operation resides a highly informal grouping of states, with membership fluctuating since its formation in 2001. Its core membership comprises Algeria, Bolivia, Brunei, Egypt, Indonesia, Iran, Libya, Malaysia, Nigeria, Oman, Qatar, Russia, Trinidad & Tobago, the United Arab Emirates (UAE), Venezuela, Equatorial Guinea, and latterly Norway in an observer capacity. These countries account for over 70% of the world's gas reserves and over 40% of production, leading many analysts to suggest that there are already a sufficient number of producers to form a price-setting cartel. In Datamonitor's view, such analysis is misplaced.

Figure 1: Net production across GECF is still heavily weighted towards a number of key producers



The formation of the forum was largely a reaction to liberalisation within gas markets having increased uncertainty for exporters. Its initial attempts to block EU efforts to outlaw destination clauses that restrict the reselling of gas and to initiate gas-pricing change in Europe by ending the link to crude oil prices both ended in failure. But while policy effectiveness may be low, political rhetoric has reached an all-time high as gas prices continue to slide. Russia, Qatar and Iran are all looking towards *some form* of market influence or control, while Algeria has put the point more bluntly: 'in the long term, we are moving towards a gas OPEC'; a sentiment that is largely mirrored by Venezuela. But the problem is that such players don't really know how to get there, with blunt self-interest and short term thinking likely to trump the cartelisation process.

“New developments” hit ‘old problems’ for the Troika

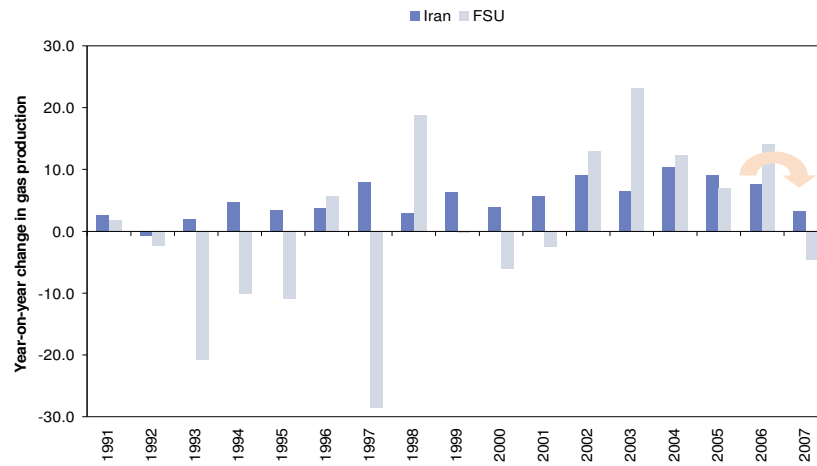
The GECF has seen a number of ‘new developments’ over the past couple of years. Russia assigned itself the task of leading a pricing study examining infrastructure and the relationship between producers and consumers, with the political blessing of Algeria. Qatar was supposedly on board, but preferred ‘co-operation between producers and consumers’ rather than speaking of a ‘cartel’. Iran also rekindled interest in a gas OPEC, while Venezuela continues to try to persuade Bolivia and Peru to form a regional cartel in Latin America.

However, it was the latest meeting of the key gas players in October 2008 (Iran, Russia and Qatar) who as a troika, control around 55% of reserves, that has pushed developments a little further by agreeing to work on trilateral exploration, production, processing and transport of natural gas. But this should not be seen as an attempt to create a ‘two speed’ gas cartel. In its current complexion, the troika amounts to little more than a shared desire to protect and enhance positions as current (or future) gas producers, rather than a coordinated attempt to establish a fully-fledged gas OPEC. In effect, the troika is a useful investment vehicle for Qatar Petroleum, Gazprom and NIOC to develop large parts of Iran’s South Pars field which has been undermined by heightened political risks and sanctions imposed for Western players rather than a “GasPEC in waiting”. Each party will take a 30% stake in South Pars, which will probably then export gas to Qatar for liquefaction and sale on the world LNG markets. The other 10% of the deal will be reserved for a trading partner or leading client such as CNPC or KOGAS.

Should co-operation amongst the troika became more serious in terms of moving towards genuine price collusion as may be slated in the potential ‘charter’ to be agreed in late November, it remains highly unlikely that political agreement could be reached or indeed made to stick amongst these key producers beyond extremely vague wording of any text. Exactly the same dissonance would also play out across the GECF members as the large membership list makes it politically cumbersome, with divergent views on what should be achieved. Several gas exporters – such as Canada, Australia, Norway and the Netherlands – would also be unlikely to facilitate a cartelisation process. This is before we even consider the fact that any prospective members would always want to take advantage of ‘first mover’ opportunities in the LNG market.

With this in mind, it comes as no surprise that Iran remains the most ‘hawkish’ in favour of a gas cartel given its relative position of weakness. The problem for Tehran is that despite sitting on the second largest reserves, it remains a net importer of gas, underlining the fact that the spectre of cartelisation from an Iranian perspective is designed to gain further political clout, rather than a realistic prospect of replenishing dwindling state coffers. Similarly, Russia faces major gas supply pressures due to a long term lack of upstream investment. As early as 2006, it was estimated that Russia would need \$200bn of investment to 2020 in the gas sector to meet international demand. This has led to ‘mixed messages’ from the Kremlin on cartelisation prospects. Alexi Miller (Chairman of Gazprom) has noted the need to create a “fair market for producers” while Prime Minister Vladimir Putin could not have been clearer in stating “we are not striking any cartel deals” - particularly as political risk is starting to matter once more for BRIC markets in light of financial meltdown and ailing Russian capabilities.

Figure 2: Both Iran and Russia are struggling to maintain, let alone increase production



Even Qatar, currently the world's largest LNG exporter with 17% of the world market is having to divert more of its gas to feed the domestic and Middle Eastern markets, and has placed a moratorium on new gas export projects after 2010. More importantly, although Qatar has been working to improve relations with Iran, Sheik Hamad Bin Khalifa al-Thani remains a key US ally in the region. The formation of a gas troika would thus come at a heavy political price for al-Thani in terms of losing face with Washington, Brussels and Beijing. Ultimately, it is not one that he will be willing to pay. Thus, the only real alignment among the troika is one of connivance between Russia and Iran, who are both badly exposed to falling oil and gas prices which are jeopardizing political cohesion and economic growth at home, yet both remained poorly positioned to orchestrate such a change in gas price formulations.

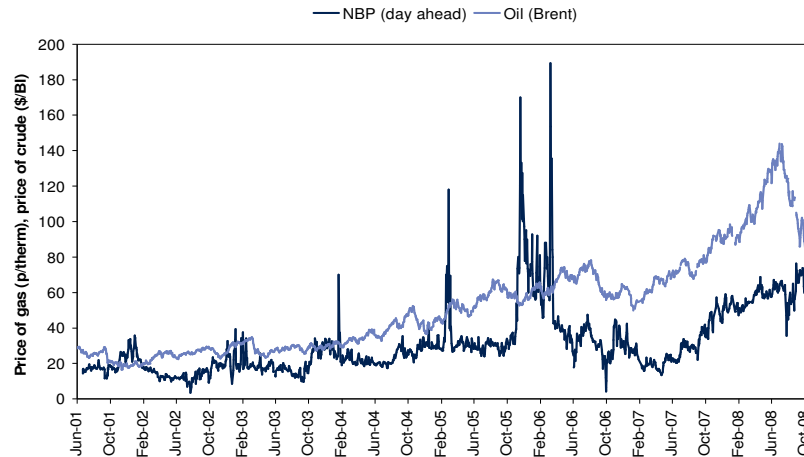
Russia is also well aware that any attempt by the troika, or indeed the GECF, to adopt the structure and policies of a formalised cartel would face resistance from consumer countries. The EU has already noted its derision for such a concept and even came up with the idea of a 'buyers' cartel for Central Asian gas at the same time of the meeting of the troika. Clearly this is largely political window dressing from Europe as far as the 'Great Game' is concerned, but from an internal perspective, although liberalisation of energy markets remains politically stymied with the Third Package railing against the perturbations of the European Council and Parliament, the prospect of a gas OPEC is arguably the one factor that could act as a catalyst for reform. This would hinder cartel development to the extent that it would foster competition not only between gas and other energy sources, but also between different sources of gas. From the perspective of an importing country, having competing sources of gas effectively increases the 'elasticity' of demand facing a cartel and reduces its market power.

Gas isn't oil – yet

This points us towards the fact that unlike oil, gas is not a global market but a collection of regional markets with their own prices (albeit informally tracking oil price movements). Only a small amount of global gas demand is currently met by imported supplies (around 15%), compared with around 60% of oil demand, which means that there is less scope for consumers to be influenced by production programming and supply-side management by producers. More importantly,

most gas is still delivered via pipeline and long term Gas Purchase Agreements which are still largely oil indexed as a pricing benchmark.

Figure 3: Oil and gas indexation still remains strong underlining limited spot market activity for gas



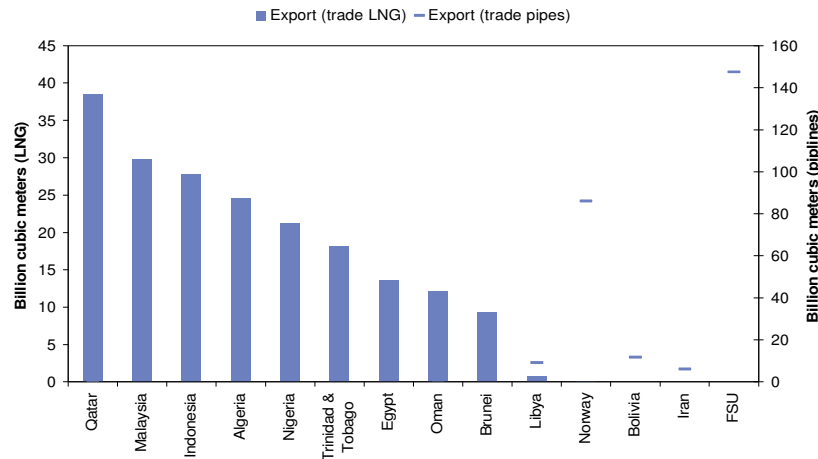
The obvious upshot is that the scope for the GECF to quickly influence price by production programming in the same way that OPEC does with oil is inherently limited. Only when the gas market has predominantly moved away from long-term contracts towards spot and forward market based system would there be scope for a 'gas OPEC' to influence prices. While it's true that this movement towards a spot market has started, it will still take many years before sufficient liquidity exists to back out of long-term contracts and create the conditions needed - particularly as security of supply concerns are increasingly locking LNG contracts into long term agreements, with only approximately 10% of the market operating on a genuinely spot basis.

Although media coverage has foreseen a major rise in LNG as the Atlantic and Pacific Basins race to build re-gasification capacity, it has repeatedly overlooked potential supply-side risks. In the past two-and-a-half years, a measly 19 million tonnes of LNG capacity has been sanctioned, with only three new projects approved in 2007. The key stumbling block is that final investment decisions are becoming increasingly difficult to conclude, not least because LNG suppliers are keen to extract optimal contractual positions from foreign companies. In Algeria, state-run oil and gas company Sonatrach has persistently failed to strike an accord with Spain's Repsol and Gas Natural to progress the Gassi Touil LNG project, while presiding over a two-year delay in repairing the Skida LNG plant. Similar difficulties are appearing in Egypt, which recorded a 4.6% drop in LNG exports in 2007 compared to 2006 levels, amid contractual disputes with foreign companies on commercial terms and growing pressures to meet domestic demand. Although Yemen is well placed to get LNG onto the market, its reserves are fast depleting, making it a short-term player rather than a long-term heavy weight compared to the likes of Saudi Arabia and Iraq over the next 20 years in LNG markets.

Meanwhile, despite Gazprom's attempts to build a global upstream portfolio, Russia still faces an uphill struggle to develop LNG capacity at Sakhalin and Shtokman. Bolivia, Venezuela and Peru could all find any major LNG developments stymied by domestic constraints, while Indonesia is unlikely to increase production in the foreseeable future in Asia Pacific. Malaysia (the world's second largest LNG exporter) is also struggling to keep pace. In sub-Saharan Africa, LNG progress

has been made in Angola, while in West Africa, Nigerian President Yar'Adua has been busy courting investment in the gas sector. However, much of the proposed increase in output has already been earmarked for domestic supply by Lagos, making it a less attractive proposition for oil and gas companies willing to navigate the considerable country risk involved.

Figure 4: LNG export growth has been stymied by supply-side constraints



Even when we take such supply side difficulties into account, with demand softening, domestic production increasing and new plant (across the generation mix) coming online in a number of key consuming countries, LNG is rapidly starting to resemble a 'buyers' market once more.

Putting the cart before the horse: short term interests to persist

But before even considering LNG developments, any prospective cartel (and indeed, troika) would need to decide how much to restrict output below the level that would be collectively produced in the absence of a cartel; needless to say, allocating production quotas among members is difficult because each member has different needs, ambitions and bargaining power. Cartel members would also have to agree to some system of staggering new capacity investment projects. Countries that were required to postpone such investments would be penalised in that they would not be able to benefit immediately from the revenues that would be generated by using reserves. The fact that many GECF countries face pressing needs for development funds means that they will be keen to develop resources as quickly as possible, rather than depending on promises of payment from others. A fair system of staggering would therefore require compensation between those at the front of the queue and those further down; reaching consensus on such cross-cutting payments would be difficult, even for a troika-based system.

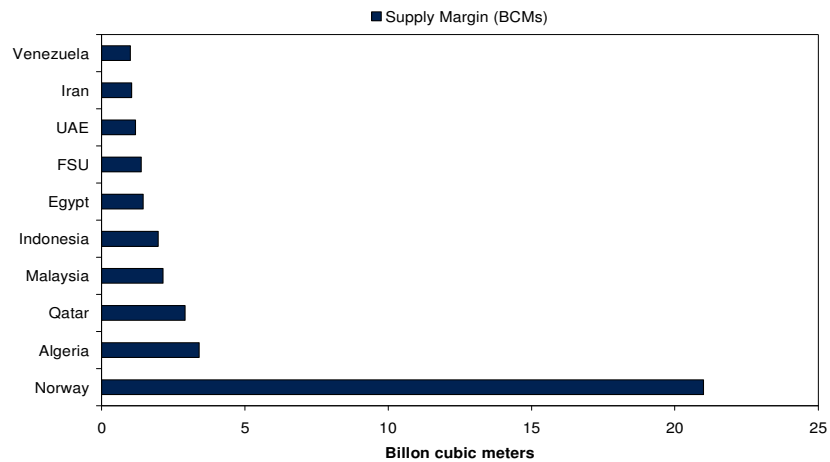
In the unlikely event of any agreement being reached, the problem of 'cheating' would also become apparent. The larger the number of members and the more liquid the market, the more difficult it would be to detect who was doing the cheating and deciding on 'appropriate' punishment. The cartel would also need to deter entry into the industry, otherwise its share of the market would shrink along with its power to set price or other market conditions, unless new entrants were small relative to market growth. Both these processes would require a relatively small number of producers who control a substantial share of the market and are able to establish and enforce production quotas, control capacity expansion and restrict the entry of new producers at the fringe. While the troika is clearly well placed as far as controlling a "substantial

share” of the market is concerned, once we look under the ‘bonnet’ of individual states, their willingness to support a cartelisation process is at best dubious, at worst, simply implausible, particularly as the cost of decision-making would increase concurrently with the potential for disagreement. Even if the troika did start to assume a degree of market control, the fact that other producers would be tempted to join (or indeed, free ride on the back of the institution) would make effective control even harder.

Not enough swingers inside or outside the Troika

However, perhaps the biggest problem for the troika, and indeed the GECF, remains the lack of a swing producer at the outset. Saudi Arabia remains the clear ‘swing producer’ in OPEC, but such a function for a gas cartel would be less clear cut. Not only would the role of swing producer for gas be more costly because of higher fixed costs associated with gas projects, but producers would also have to maintain excess liquefaction and LNG tanker capacity (or gas pipeline and storage capacity), making it a less attractive prospect. Added to this is the fact that any prospective swing producer also needs gas for functions beyond export purposes.. For Russia, the cost of excess capacity includes the opportunity cost of forgone public revenues from gas production and export (which is one that it can currently ill afford) given it is already struggling to reach domestic demand. This is not to say as production capacity increases in the longer term, Russia will not seek to play a critical price-arbitrage role between Eastern and Western markets with the potential to extract rents from its dominant position, but its ability to play a swing producer role will always be constrained by its large domestic population and high costs.

Figure 5: Gas margins remain tight in most markets with the exception of Norway

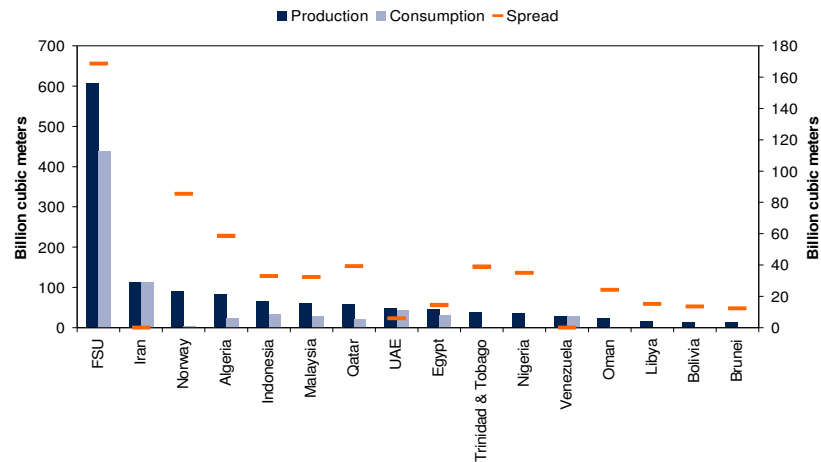


In theory, Qatar stands well placed to play a swing producer role given it has large reserves relative to its population, and the need to maintain output to generate adequate reserves is not as pressing as in the case of Russia. In addition, Qatar is geographically well placed to move LNG supplies to all three major markets in Asia, Europe and the US. But once again, current trends show that Qatar is also putting aside more and more gas for its domestic economy for power generation and petrochemicals (including a moratorium on new gas export projects after 2010), thus underlining its structural competition, not co-operation with Moscow. The potential development of the South Pars field for Iran might well help it ramp up its gas production levels, but it still remains a long way from turning into a dominant gas player, particularly as Tehran will come

under increased pressures to feed Eastern and Western markets amid fresh opportunities for diplomatic engagement with the Obama Administration on the nuclear question.

Moving beyond the troika towards the GECF, other large reserve holders such as Saudi Arabia and Iraq are unlikely candidates for the swing producer role because they will not become significant exporters until after 2030. Nigeria, despite its modest reserves, is predicted to have a significant share of world exports by 2020 (around five to seven percent). This share, driven by LNG exports to the US will increase marginally by 2030, but again Nigeria will be unlikely to be a swing producer because of domestic political constraints. Venezuela and Bolivia, while both notionally advocates of a gas OPEC are not yet major gas exporters, and if anything, both need gas to improve oilfield production and meet domestic demand. If such a scenario is already painting a bleak picture for cartelization prospects, the longer term problem for the troika (and indeed GECF) is that they would also find it difficult to stop fringe producers coming into the market to exert maximum control.

Figure 6: Domestic consumption still accounts for the lion’s share of gas production



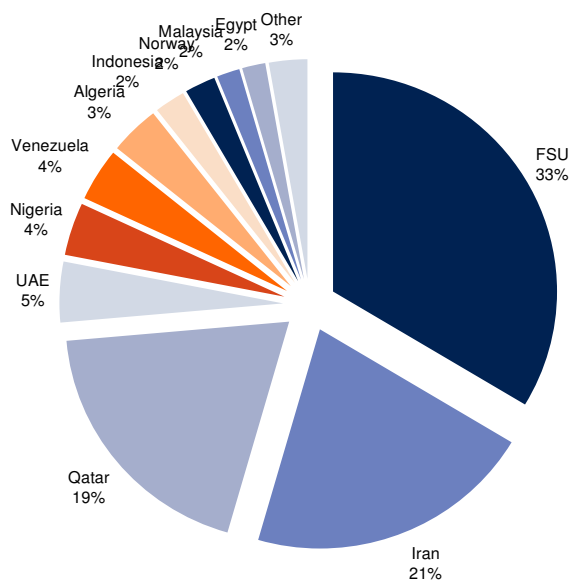
Even a functioning Troika wouldn’t be enough to control the market

On this note, although the distribution of world natural gas is more concentrated than the distribution of oil resources in the sense that the countries with the largest gas reserves have a larger share of total world reserves than is the case for oil, once we start moving lower down the list from top producers, gas reserves are actually slightly less concentrated, with the top ten oil producers holding around 80% of reserves, compared to around 75% for the gas equivalent.

This underlines the fact that the potential for a significant increase in output and exports from countries beyond the GECF or troika fold is considerable. A large number of countries have at least one percent of the world’s reserves that could be developed with a significant price increase, making the ‘elasticity’ of supply of fringe producers quite large. This would inherently limit the pricing power of a small group of producers – even a group including Russia. And as suggested above, although Russia’s share of the gas export market is expected to remain the highest worldwide towards 2040, even here, Moscow’s capability to exercise such power will be limited to its ability to appropriate the difference in costs between its pipeline gas and the higher cost of LNG from the Middle East and Africa. True; the supply of the fringe (including LNG capacity from the Middle East and Africa) is relatively inelastic over a small range of prices, but once prices reach the level

that would cover the difference of higher LNG costs, supply from the competitive fringes becomes very elastic. This would essentially undermine any power that Russian exporters would have to raise the prices further.

Figure 7: Gas remains less concentrated than oil among the top dozen producers



GasPEC will remain in play in the longer term but it will always face difficulties

That said, as with oil, gas production in the fringe will eventually peak and the market power of a cartel would be enhanced. The timing of these events will be determined by the rate at which demand grows and reserves – both within the cartel and in the competitive fringe – are developed. As the number of key gas producers narrows (expected beyond 2025), the chances for producer collaboration will be increased between LNG suppliers and Russia. However, even a cartel at this stage would face greater competition from other fuels. Unlike oil where there are few substitutes in the transportation sector, natural gas must compete with coal, oil, hydroelectric and nuclear for its market share. This could be seen as increasing the elasticity of demand for gas in both aggregate and any cartel output, translating into reduced market power. Improvements in clean coal technology will over time also lower the upper limit to gas (and oil) prices that a cartel can set without triggering major defections to alternative sources.

The interdependence between gas and oil markets presents additional challenges for a gas producers' group. There would be an overlap of members who already participate in the OPEC oil cartel and those who would be members of a gas cartel, but others would be a member of only one or the other. As the gas market develops further and gas becomes a more readily available alternative to oil, price competition between gas and oil may increase, complicating the politics of both

cartel organisations since the largest gas producers are not necessarily the countries with the largest potential for oil production.

Gas-on-oil competition between new major gas producers and the major oil producers could cause market-share rivalries and political tensions that could weaken the market power of both organisations. Co-operation between the two cartels would be difficult because a large number of members in the larger coalition would make it inherently unwieldy, particularly as Russia and Saudi Arabia would go head to head for hydrocarbon dominance 'dragging' a number of producer states with them to ensure neither party ended up playing second fiddle. From the point of view of oil consumers, the prospect of growing competition between oil and gas on a global basis would of course be welcomed by reducing some of the long term bullish price effects on oil. But ultimately, neither Russia nor Saudi Arabia would voluntarily look to enter into fierce gas on oil competition.

The EU should still be concerned – lethargy will no longer suffice

This is not to say that future co-operation between key gas exporters on specific markets is not possible. This particularly applies to Europe, whose dependence on both Russian and Algerian gas is expected to increase to 60% by 2030. In this context, potential co-operation between Russia and Algeria, Nigeria, Iran and Libya (as well as Qatar) is a space that the EU should continue to watch carefully in terms of future price collusion and more realistically, encirclement strategies to control supply. The fact that Russia has signaled its firm intent to maintain its grip on Central Asian supplies and transit routes through the Caucuses underlines this particular threat to the EU, and if anything, acts as a wakeup call for a new diplomatic tact towards the Middle East for the EU to diversify supply options.

However, bilateralism will only go so far for the EU. Its best route to energy security (and easier option) still remains to develop an integrated internal market to reduce pressures felt from key suppliers in the East, West and South. Conversely, bilateral accords of any substance among the troika (and indeed the GECF) also remain a distant prospect. Price collusion between Russia and Qatar remains unlikely for a number of geopolitical and structural reasons, while Russian collaboration with Iran would not necessarily be in the Kremlin's best interests at this stage in order to maximise receipts. The fact the politics of a gas troika and indeed, GECF remain chronically misaligned at this stage is, however, more an issue of luck than judgment as far as the EU is concerned. Should Brussels want to ensure that the long term structural factors for a global gas cartel don't fall eventually into place, lethargy will only work for so long on issues of internal liberalization and sourcing external supplies. The more desperate producer states become to maintain prices, the more drastic and illogical their action could become. The dangers of misreading GECF musings as mere political bluster, rather than structural change, is one all consumer states should be wary of.

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