

EDA INSIGHT



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Global Trends in Oil and Energy: Implications for the GCC and Foreign Policy Responses

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This EDA Insight is the outcome of a joint workshop between the Oxford Institute for Energy Studies (OIES) and EDA. It has been compiled by EDA Senior Research Fellow Dr Mari Luomi and is based on presentations by OIES Director Dr Bassam Fattouh. Please do not reproduce the content or ideas in this document without permission from or due attribution to the EDA/OIES. The views expressed in this publication are solely those of the authors and do not necessarily reflect the views of the EDA or the UAE Government.

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Summary

- This EDA Insight examines how global energy markets are evolving, what this could mean for Gulf oil exporters, and how these countries could respond through the means of foreign policy.
- It draws from discussions at an energy stakeholder workshop held at the Emirates Diplomatic Academy in May 2017, and in particular it draws heavily on ideas and data presented by Dr Bassam Fattouh of the Oxford Institute of Energy Studies. This Insight is designed to serve as a summary of some of the key points made in the discussions but should not be read as representing the agreed view of the participants.
- The workshop identified 10 structural trends that are expected to be largely responsible for shaping global energy markets over the next two decades. These are:
 - Acceleration of shift in oil demand away from the OECD to non-OECD;
 - Shifts in oil demand within non-OECD Asia driven by China and India;
 - Continuing role of US shale oil as a 'new', nimble source of supply;
 - Shift in oil trade flows from 'East to East' and from 'West to East';
 - Possibility of the US becoming a net oil and natural gas exporter;
 - Changing relations within OPEC countries;
 - Growing relevance of Russia-OPEC relations;
 - Changing nature of geopolitical risks affecting the oil market;
 - Shift in oil market perceptions from scarcity to abundance; and
 - High uncertainty regarding the impact of technological change and climate change policies on oil demand.
- The implications of these trends for key GCC oil-exporting countries, including the UAE, may include:
 - Incentives to increasingly expand bilateral GCC-Asia ties beyond the economic sphere;
 - Shifts in US policy resulting from changing perceptions of the geostrategic importance to the US of the GCC countries;
 - Increasing difficulty in reaching intra-OPEC agreements and competition among OPEC allies;
 - Challenges in managing the separation of, or trade offs between, energy and other issues in GCC countries' foreign relations with Russia;
 - In relation to new geopolitical risks: deterioration in the business and investment environment and rising industry and financing costs, delays in bidding and regulations, and inability to implement large-scale projects; and
 - A growing need for oil exporters to consider policy options under widely different global oil demand scenarios.

- GCC countries' foreign policy and diplomacy can play a role with regard to (i) responses to changing demand patterns, and managing the changing producer–consumer relations; (ii) the management of changing producer-producer relations; and (iii) the maximisation of the chances of economic success in a context of uncertainty over future oil demand and prices.
- Possible foreign policy-related options for the GCC states to evaluate include:
 - Further strengthening economic links with Asia through attracting more investors into the upstream sector and taking downstream assets to markets where growth will take place;
 - Expanding relations with Asian consumers towards more strategic ones, which have the continuation of GCC oil exports to Asia, and enhancing Asian countries' stake in the economic success of the GCC, as built-in objectives;
 - Building relations with the US on the basis of areas of common interest other than energy, such as fighting extremism;
 - Enhancing OPEC-Russia coordination on oil production, and carefully managing wider cooperation with Russia in other areas;
 - Considering how to make the most of the competition among major global powers in the region;
 - Thinking of ways to enhance producer-producer cooperation in order to avoid price wars and the use of 'non-market methods' to limit competition;
 - Seeking collective approaches to support the continued growth in global demand for non-energy uses of oil, such as petrochemicals and plastics;
 - Encouraging and promoting further research and development (R&D) into non-energy uses of oil;
 - Exerting a bigger collective effort among oil producers to support R&D into CCS technologies, and supporting policies that make CCS economically attractive;
 - Promoting regional cooperation in the areas of electricity markets, and renewable energy generation and policy and regulatory frameworks;
 - Coordinating and providing mutual support for economic diversification policies within the GCC; and
 - More broadly, avoiding further lock-ins into industrial diversification strategies based on the availability of cheap hydrocarbon energy.

The Issue

This EDA Insight provides an analysis of some of the main global and regional energy trends affecting the United Arab Emirates (UAE) and other Gulf Cooperation Council (GCC) member states going forward. More specifically, it presents ten key oil market-related trends, assesses their implications for the UAE and other key GCC exporters, and explores possible foreign policy responses.

This paper is based on a stakeholder workshop held at the Emirates Diplomatic Academy, in May 2017, under the title *Global and Regional Energy Trends: Implications for the UAE and Foreign Policy Responses*. The workshop was attended by twenty participants from various UAE governmental and semi-governmental entities, as well as think tanks and academia. It was structured around two stage-setting presentations, which were delivered by Dr Bassam Fattouh, Director of the Oxford Institute for Energy Studies.¹ Each presentation was followed by a brainstorming session, during which the participants validated, and added to, the trends, implications and options presented, and engaged in a deeper discussion on each.

This paper draws heavily from ideas and data presented by Dr Fattouh, in addition to the discussions among the participants. This Insight is designed to serve as a summary of some of the key points made in the discussions but should not be read as representing the agreed view of the participants.

Relevance for the GCC States' Foreign Policy

Global energy projections are characterised by great uncertainty, particularly with regard to oil demand and price, over the coming two or three decades. For the main GCC oil producers, the key response in adapting to these changes continues to be economic diversification away from oil export dependency. Structural changes in domestic energy supply and demand also play into the dynamics, with many GCC states now importing natural gas and pursuing ambitious domestic energy diversification agendas and limited energy pricing reforms.

While the challenges emanating from changes in global oil markets are largely driven by factors external to the GCC, and while the policy responses will lie mainly in the domain of domestic policymaking, there is arguably considerable scope for foreign policy to play a supporting role in addressing these challenges and in pursuing related opportunities. In addition to identifying major global trends and regional implications, this EDA Insight makes some initial suggestions with regard to possible

GCC and UAE foreign policy responses, with an eye on incentivising more in-depth discussions among relevant stakeholders.

Major Trends Affecting Global Oil Markets in the Next Two Decades

Ten major structural trends are likely to shape global oil markets over the next two decades. Many of these relate to three broader tendencies, namely: a broader shift of energy demand to Asia; abundance of exportable oil, partly due to new sources and countries; and great uncertainty surrounding how fast and soon changes in technology development and uptake will affect demand patterns and price overall. These ten trends are:

TREND 1 – Acceleration of shift in oil demand away from OECD to non-OECD countries: In the next two decades, growth in global oil demand will come from non-OECD (Organisation for Economic Co-operation and Development) economies. It is likely that this trend will accelerate going forward, with declining demand in the OECD offset by demand growth in non-OECD countries, particularly in China and India.

Growth in oil demand is driven by the expansion of the middle class. Most of this expansion is coming from Asia, while in the OECD the growth of the middle class is slowing down.

In terms of sectors, growth in oil demand is driven by motorisation, but also aviation and the use of petrochemicals. Asian countries are currently experiencing the 'golden period of motorisation' during which per capita car ownership rises sharply before reaching a plateau. Asian countries, however, are likely to experience different trajectories in demand patterns than the OECD countries did, due to cultural and technological factors. In India, for example, two-wheeled vehicles remain highly popular. Given the rapid technological advances in electric vehicles, there are great uncertainties as to how fast their use will pick up. Uncertainties also exist with regard to demand for gasoline versus diesel.

TREND 2 – Shifts in oil demand within non-OECD Asia: During the 2000s, China accounted for the largest share in global oil demand growth, driving increases in diesel demand in particular. Since then, however, the sources of growth have become more diversified, driven primarily by demand in India, but also smaller Asian economies, such as Indonesia, Malaysia, Thailand and Viet Nam. This trend is likely to continue with China's changing economic and industrial model, which has already led to decreases in demand for diesel (used in transport of goods) and increases in that for gasoline (used in cars).

¹ The EDA would like to extend its sincere thanks to both Dr Fattouh and the workshop participants for their invaluable contributions.

China's regional and foreign policy ambitions will be another key factor affecting non-OECD Asia's oil demand patterns. The One Belt One Road (OBOR) policy, aimed at connecting China to the rest of Asia and Europe via land and sea routes, may have important impacts on global energy flows.

TREND 3 – Continuing role of US shale as a 'new', nimble source of supply: The US 'shale revolution', prompted by the high oil prices of 2010–11, has led to a rapid increase in US production, in particular of crude oil and natural gas liquids. US shale is expected to continue to remain an important player in the global oil market, seeing a consolidation of the sector and further decreases in breakeven costs through technology development and efficiency gains.

The US shale sector is characterised by a short investment cycle, which enables quick increases in production. Other unique characteristics include private land ownership, a distinct production profile in terms of barrels/well and decline rates, availability of private capital and a strong focus on technology development. The agility of the US shale market means it will continue to impact global prices.

TREND 4 – Shifts in oil trade flows: Gulf producers, which had for long captured the Asian oil market, are seeing increasing competition from other producers. This competition extends beyond crude oil to oil products. In the US, the rising domestic production has led to a decrease in imports from a high of more than 10 million barrels per day (mbd) in 2007–08 to 7 mbd in 2014. At the same time, the US has begun exporting crude oil, diesel and propane. This shift has left many countries that used to export to the US, including from Africa and Latin America, looking for new markets. Russia too has been diversifying its exports into Asia.

TREND 5 – Possibility of the US becoming a net oil and natural gas exporter: There is a possibility that the US may turn into a net exporter of oil and gas. In natural gas, the US is already becoming a net exporter. Some projections under certain assumptions suggest the US could become a net exporter of petroleum products as soon as in the 2020s or 2030s.

TREND 6 – Increasing domestic pressures in OPEC countries to expand production: Despite the successful agreement of 2016 to freeze production levels among the Organization of the Petroleum Exporting Countries (OPEC) and a number of other leading producers, there are uncertainties about whether similar agreements can be reached going forward, in particular beyond 2017. Iran and Iraq have ambitious plans to increase their production capacity, as do Kuwait and the UAE. Saudi Arabia's high reliance on oil revenue has translated in

recent years into challenges for the country's private sector and has diminished its fiscal buffer. This has left the country with limited room for manoeuvre in terms of pursuing long-term oil strategy. Simultaneously, OPEC's ability to push oil prices up is being limited by the agility of US shale producers.

TREND 7 – Growing relevance of Russia-OPEC relations: Contrary to expectations, after the 2014 oil price decline, instead of declining, Russian oil output continued to increase, reaching 11 mbd in 2016 (compared to 10 mbd in 2010). This was due to several factors, including a tax system favourable to producers, currency devaluation and previously sanctioned projects coming online. The volume of Russian oil production/reserves and realization that balancing the market would require cooperation with non-OPEC countries prompted OPEC producers to focus on engaging with Russia in this area. Russia, on its part, was interested in such cooperation given its heavy economic reliance on oil revenues. The result was the 2016 OPEC agreement that brought Russia on board. However, similarly to OPEC producers, Russia too is facing pressures to increase production. Recent years' increases in Russian oil production, in a low price environment, and its overall production levels underscore the importance of OPEC-Russia coordination going forward.

TREND 8 – Changing nature of geopolitical risks affecting the oil market: While the 'traditional' approach to defining geopolitical risks affecting the flow of oil from the MENA region to the global markets – centred around choke points, such as the Strait of Hormuz – remains valid, the nature of geopolitical risks has changed. A number of oil-producing countries, such as Libya, Yemen and Syria, have experienced a weakening of state institutions and of the centrality of the state in directing the oil sector's development. In many countries, including Iraq and Libya, local non-state actors have become a disruptive force. Consequently, fragile states and rogue non-state actor groups will factor among the top risks affecting oil markets.

TREND 9 – Shift in oil market perceptions from scarcity to abundance: Whereas a *perception* of scarcity characterised much of oil market analysis in the past, the debate is increasingly shaped around the notion of abundance. (This should not be confused with estimates of global oil reserves, which have continued to increase throughout recent decades.) It is currently estimated that expected increases in global oil demand remain below what the world's technically recoverable resources could cater for. Going forward, the debate will therefore be centred around which resources will be developed. This will arguably place those low-cost producers in the Middle East that are able to provide a stable investment environment in an advantageous position.

TREND 10 – High uncertainty regarding the impact of technological change and climate change policies on oil demand:

Global oil demand has continued to grow, with 2016 registering annual growth of 1.6 mbd. Further growth is expected, for the time being. There is, however, great uncertainty regarding global demand in the longer term. Many estimate a peak in global oil demand will only happen towards the 2040s, basing this projection on current policies. Others, however, point to demand projections that take into account scenarios in which ambitious strategies to avoid dangerous global warming (of more than 2°C above pre-industrial levels) are implemented. These scenarios could see global oil demand peaking as early as the 2020s.

Other factors that could negatively affect long-term global oil demand include slower than expected economic growth, faster than expected improvements in the energy intensity of economic outputs, efficiency improvements in the combustion engine, fuel switching from oil to natural gas (and possibly to hydrogen from non-oil sources), low uptake of carbon capture and storage (CCS) for oil-related applications, and rapid market penetration of electric vehicles.

Overall, the shares of oil and coal are expected to keep declining in the global energy mix over the next two decades, while those of natural gas and non-hydro renewables are expected to rise.

Other trends: In addition, further trends that could affect global oil markets, and energy production/demand patterns more broadly, include: demographics (the slowing down of global population growth); digitisation (and its impact on labour markets and job growth); and changes in public opinion and consumer preferences (relating to different choices regarding preferable energy technologies, technologies in general, energy policies and lifestyle).

Implications for the UAE and GCC

Each of the above-mentioned trends is expected to have important implications for the main GCC oil producers, including the UAE. Below, these implications are mapped against each trend:

TRENDS 1 and 2 – Shifts in oil demand to Asia and within

Asia: The growth of the Asian middle class is expected to bring implications for the GCC countries' relations with both OECD and non-OECD countries. While other economies beyond China will be important drivers of oil demand, China's trade policies may have fundamental impacts on global energy flows. As a result, largely economic relations between producers and consumers, for example between China and GCC countries, or and India and the GCC, may evolve into more geostrategic ones.

TRENDS 3 to 7 – Emergence of US shale and increasing competition among oil producers:

There are at least three noteworthy implications stemming from the impact of the US shale industry that are of relevance for the GCC. Firstly, the short investment cycle of the US shale industry will have a lasting impact on the dynamics of global oil markets, which so far have been characterised by cycles of several years. Secondly, if the US were to become a net oil and gas exporter, this could fundamentally alter the country's perceptions regarding the geostrategic importance of the GCC countries. Possible policy shifts that could ensue as a result are hard to predict. Thirdly, the increasing competition among oil suppliers in Asia might also affect GCC-US relations.

In response to the trend of increasing competition for market share in Asia, a number of Middle Eastern exporters are building oil refineries and petrochemical facilities in Asia as part of their diversification drive. In this regard, the GCC will need to take into account the potentially increasing competition as they consider marketing and pricing strategies, and relations with Asian consumers both within and beyond the energy sector.

As a result of pressures to increase oil domestic production across OPEC member states, intra-OPEC agreements may become more difficult, and competition among OPEC allies may also increase. Some have suggested that these relationships risk becoming uncooperative.

The US remains the guarantor of Gulf security, but the US and GCC cannot coordinate on oil output cuts given the distinct dynamics of the US oil industry. Russia, a key non-OPEC producer, and OPEC countries have thus far fared well in separating the energy file from other foreign policy files. While the GCC and Russia have not always been politically aligned with regard to every issue in the MENA region, investments between Russia and the Middle East have been increasing. In order to try to curb further decreases in oil prices, agreements in non-OPEC countries, and in particular Russia, are likely to be necessary. The challenge, going forward, will be managing this complex picture.

TREND 8 – Changing nature of geopolitical risks (and potential for related manipulation):

Weak states and the rise of non-state actors across the MENA region are not only altering the perception of geopolitical risk in oil markets. Long-term implications of such unstable oil production environments include rising industry costs, rising costs of finance, delays in bidding and regulations, and inability to implement large-scale projects. In a worst-case scenario, these factors may significantly affect the production capacity of states in the longer term. (Some have gone as far as to suggest that instability in some

key oil producing countries could be strategically used to the advantage of other producers looking to increase their share of the market and/or revenues in a post-peak oil demand world.)

TRENDS 9 and 10 – The challenge of abundance in oil supply and uncertainties relating to technology development and climate policies: In a scenario in which some of the technically recoverable global oil reserves remain undeveloped, stable Middle East low-cost oil producers are better positioned than many other producers, and it is generally assumed that stranded assets would not be the main concern for these countries. Under some scenarios, there is a possibility that some Middle Eastern producers, such as Libya, will not be able to develop all their reserves, in a scenario of prolonged instability and weak state institutions.

While many consider the current slump in oil prices to be structural in nature, there are some who consider the possibility of a rebound effect resulting from a technology breakthrough (for example in the area of CCS) possible – a scenario that should therefore not be fully excluded. What most consider certain, however, is that oil demand growth will slow down over the next two decades, possibly peaking during this period or shortly thereafter. Without taking a stance on how soon a peak in global oil demand will occur – whether in the 2020s or the 2040s – the uncertainty regarding future demand patterns calls for a thorough review of related policy options under a variety of different scenarios, and the evaluation of the speed and intensity of related domestic policy responses, including in the areas of labour market reform and revenue collection from non-oil revenue.

In geopolitical terms, the shift in perception of oil as a less strategic commodity may also have important consequences for the GCC producers – an implication related to changing perceptions in the US resulting from the diminishing US dependence on imported oil.

Other trends: Public acceptability of certain energy technologies can drive important shifts in energy demand in terms of sources. Good examples include nuclear energy in Germany and coal-powered electricity generation in China. In addition to the power sector, impact of consumer perceptions on electric vehicles uptake is another uncertainty factor for global oil demand and prices.

Possible Foreign Policy Responses – Managing the Risks, Seizing the Opportunities

In some of the areas identified above, foreign policy responses will inevitably be limited, or less conducive to longer-term planning. However, there are many areas where foreign policy or diplomacy can make a

difference. The workshop held at the EDA in May 2017 identified some foreign policy responses, many of which are deeply rooted in domestic economic and industrial policy. Assessing the achievability and time horizon of these options will be the task of further analyses, as will be the exploration of further and more specific foreign policy responses to match each of the trends and related implications.

The options identified during the workshop can be divided into three broad areas: (i) responding to changing demand patterns, and managing the changing producer-consumer relations; (ii) managing changing producer-producer relations; and (iii) maximising the chances of economic success in a context of uncertainty over future oil demand and prices, and a looming global energy transition away from fossil fuels. It should be noted that the list presented below has not been assessed in terms of relative benefits and challenges – the merits of each option should therefore still be carefully evaluated.

Responding to changing demand patterns. Options in this area include:

- Strengthening economic links with Asia through attracting more Asian investors into the upstream sector and taking downstream assets to markets where growth will take place (in other words, inviting Asian countries/companies to have a stake in GCC energy industries and acquiring downstream assets, such as refineries, in Asian countries);
- Expanding relations with Asian consumers from largely economic towards more strategic ones, which aim to sustain oil exports from the GCC to Asia, as well as maintain Asian countries' stake in the economic success of the GCC. The example of the UAE-Indian agreement on oil storage is a case in point. The UAE-South Korean relations around nuclear energy are another one; and
- Rethinking strategic relations with the US, as oil relations become less important and as production from the US enters in direct competition with that from the Middle East. This could involve building the relations on the basis of other areas of common interest, including fighting extremism.

Managing changing producer-producer relations. Possible related responses could include:

- Enhancing coordination between OPEC and Russia on oil production and managing carefully the wider cooperation with Russia in other areas where the GCC and Russia have not typically been aligned;
- Considering how to make the most out of the competition among major global powers in the region; and

- Despite the projected difficulties, thinking of ways to enhance producer-producer cooperation in order to avoid price wars and the use of 'non-market methods' to limit competition.

Maximising chances of economic success in the long term. The two already-tested options – cutting production to maximise rent versus expanding production to maximise market share – have both resulted in negative consequences for oil producers, of either suppressing demand or oil prices. Beyond these, oil producer strategies in response to an oil-demand constrained world, applicable in the foreign policy and international sphere, include:

- Seeking collective approaches to support non-energy uses of oil, including (petro)chemicals, plastics and pharmaceuticals, for example through multi-stakeholder partnerships or international producers' associations;
- Encouraging and promoting further research and development (R&D) into non-energy uses of oil;
- Exerting a bigger collective effort among oil producers to support R&D into CCS technologies, and supporting policies (such as market-based mechanisms) that make CCS economically attractive;
- Promoting regional cooperation in the areas of electricity markets, and renewable energy generation and policy and regulatory frameworks;
- Coordinating economic diversification policies within the GCC so as to avoid unnecessary competition in certain niche sectors; and
- Avoiding further lock-ins into industrial diversification strategies based on the availability of cheap hydrocarbon energy, given the pressures to reform domestic energy pricing systems and to remain competitive in an increasingly carbon-constrained world.