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Economic Diversification in the Context of Peak Oil and the Energy Transition

Executive Summary

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Economic diversification has been a key developmental goal for the Middle East and North Africa (MENA) oil producers for decades as evidenced in their various national development plans. Some countries have made progress over the last few decades in diversifying their economic base and their sources of income. But despite these efforts, most indicators of economic complexity, diversity, and export quality continue to be lower in oil-exporting Arab economies than even in many emerging market economies, including commodity exporters in other regions.

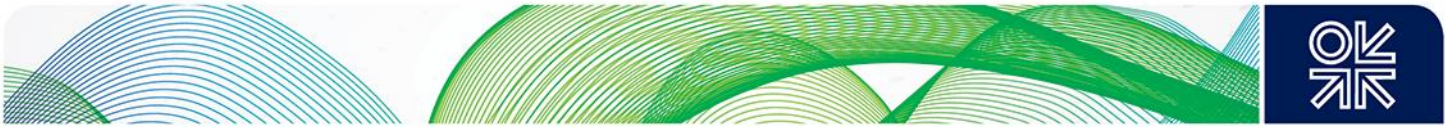
Of late, a renewed sense of urgency has arisen around the issue of economic diversification. The conventional wisdom that dominated oil market behaviour over the past few decades has been based around the idea of 'peak oil supply' and 'scarcity rents', and that preserving resources for the future by rationing supplies provided a sensible way of managing a country's oil fairly across generations. The pendulum has swung to the notions of 'peak oil demand' and 'oil abundance' – where the pace of oil demand growth is expected to slow over time and eventually plateau/decline resulting in stranded assets. It is generally thought that the world is on the brink of another 'energy transition' in which conventional energy sources such as oil will eventually be substituted away in favour of low or zero carbon energy sources.

Rather than debating its definition or measurement, this presentation adds context to the debate on economic diversification, by analysing it against the arguments around peak oil demand and the energy transition – it looks at three questions: how soon can we expect 'peak oil demand' to occur, or alternatively, how fast is the current 'energy transition'? What kind of economic future should MENA countries be planning for? And, how does the emergence of renewables as a competitive energy source impact economic diversification strategies in these countries?

Most analyses of peak demand contain a wide range of projections of the point at which global oil demand is likely to peak, some suggesting that it could peak around the mid-2020s and others expecting it to grow beyond 2040. While exercises in forecasting peak demand contribute towards providing a general (and new) motivation for diversification, they should not be the sole factor upon which these strategies are undertaken as the speed of the energy transition also matters. This underscores the futility of adopting an approach whose starting point is 'oil is no longer in demand', and analysis that moves beyond the potential role that the oil sector and oil rents would play in the transition phase.

Three main points can be made from looking at the wide range of 'peak demand' forecasts:

- **The range of uncertainty is high.** Peak demand forecasts are highly dependent upon their underlying assumptions.
- **There could be multiple peaks.** An important consideration while assessing peak demand scenarios is the "rebound effect" – i.e. the premise that a peaking in oil demand could cause oil prices to fall, triggering higher demand from consumers and a potentially more than one peak.



- **Oil will continue to be an important part of the energy mix for the foreseeable future.** The incumbent advantages of oil as an energy source, including its high energy density and an existing infrastructure ecosystem geared around it, imply that even if oil demand peaks, it is unlikely to 'fall off a cliff'. There are also very few historical instances of energy sources completely disappearing from the energy mix.

However, the possibility of a fast transition cannot be discounted, as the current transition represents a clear break with the characteristics of past transitions – the latter were driven by opportunity, interfuel competition and infrastructure lock-in, while the current transition is policy and problem-driven, and likely to differ in speed across regions and sectors.

Oil exporting countries should adapt to the energy transition, which is already underway, however, its speed is highly uncertain. Therefore, in doing so they could consider the consolidation of three key trends.

- **Oil demand is unlikely to increase strongly over the next few decades.** Government oil substitution policies driven by climate change, air quality, and energy security concerns point in the direction that oil demand is not likely to increase strongly over the next two decades, although the timing of when oil demand growth will start slowing down and turn negative is still highly uncertain.
- **Large investments will still be needed in the oil sector to fill the gap in supply.** Even in the event of peak demand and in the absence of investment in the oil sector, the decline in supply will be faster than the decline in oil demand. MENA oil producers will likely be required to fill this gap and increase investment, whilst facing competing demands on their revenues due to social welfare programmes.
- **Renewables are at an inflection point.** While there are many uncertainties induced by the energy transition, there is almost a consensus among forecasts provided by various organizations that the share of renewables in the energy mix will rise. Renewables are now cost-competitive with fossil fuels on a plant level, excluding the cost of intermittency.

As low-cost producers with some of the largest proven reserve bases, MENA producers are expected to fill the gap by heavily investing in their oil sector. Therefore, even in a world where oil demand growth is expected to slow down, the oil sector will continue to play the dominant role in these economies for the foreseeable future.

- The oil sector will continue to dominate the economy, but it needs to play a much more active role in the diversification process. Despite its high rents, the oil sector suffers from two shortcomings: it is capital intensive and does not generate the employment required in these economies; and, it does not generate a stable source of income as oil prices fluctuate considerably. Extending the value chain beyond simply producing crude oil and exporting it to international markets could in principle address some of these challenges. For instance, by extending the value chain, MENA producers can create new industries with different types of jobs and whose products' prices are not highly correlated with oil prices. Adding more stages to the oil value chain in this way does not only generate more jobs, but different types of jobs. Local content policies will also increase in importance.
 - Regardless of when oil demand peaks, MENA oil exporting countries should optimise the use of their resource bases. Rather than only focusing on building new production capacity, MENA countries need to undertake other measures to optimise the use of the resource base. These include liberating hydrocarbons which are currently used to meet soaring domestic demand at low (subsidised) prices for export, which would add economic value (if the international price is above the fiscal breakeven price). This would also entail the implementation of energy efficiency measures and subsidy reforms. Further, such measures are complementary to an overall economic diversification strategy which entails structural changes and fiscal reforms.
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- Renewables need to be adopted as a complement to economic diversification strategies. In addition to favourable geographies for solar and wind, the economic case for renewables in meeting domestic energy demand in the MENA oil exporting countries is compelling. Investment in renewables could help boost the short-term revenues of oil-exporting countries as it frees up their hydrocarbon resources for export (if international prices are above the break-even price). While renewables are part of the diversification strategy, they cannot deliver job creation and social welfare programmes (as they do not generate high rents). These countries need to gradually extend their energy model to incorporate renewable assets rather than abruptly shift from hydrocarbons to renewables.

Finally, peak demand and the energy transition have implications for oil policy. The transition implies that MENA oil exporting countries will not be able to monetise significant portions of their reserves. Some argue that this could incentivise producers to monetise their reserves 'as quickly as possible' and squeeze out high cost producers. This is not a feasible strategy as, if most low-cost producers increase supplies sharply, this will result in massive fall in oil prices and oil revenues, putting the stability of these countries at risk and derailing the economic diversification agenda. There is also the question as to whether low-cost producers can sharply increase their production capacity, especially in an environment of low oil prices. Thus, even as we shift to more competitive oil markets, oil policy and managing producer-producer relations will continue to matter. However, the challenges of cooperation are immense in a more competitive oil market and the cooperative strategy will be less effective over time in a carbon-constrained world. The cooperative solution, which results in a higher oil price, is also not without its costs and those costs need to be managed by ensuring that prices don't rise too high to accelerate the energy transition.