



# The Energy Transition & Adaptation Strategies for Oil Exporters

Executive Summary

Presented at the 3rd OPEC Technical Workshop on 'The impacts of the Implementation of Climate Response Measures'

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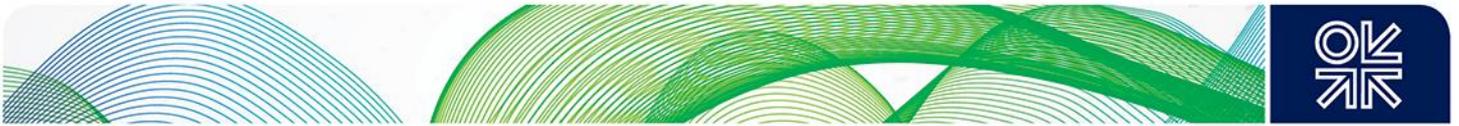
Oil exporting countries are exposed to long-term challenges related to the energy transition and increased uncertainty about the prospects of oil demand. A key challenge for oil-exporting countries is the potential loss of a key source of revenues, which is essential for the smooth functioning of their economies. Another challenge is the ability to monetize their large hydrocarbon reserve bases as for some of the resource rich countries the proved reserves to production ratio extends to several decades beyond most peak oil demand forecasts.

In the face of these uncertainties, oil exporters should pursue strategies to reduce these long-term risks and increase their resilience and fitness.<sup>1</sup> This presentation at the 3rd OPEC Technical Workshop on 'the impacts of the implementation of climate response measures' sets out to examine a few of the risk reduction strategies, namely diversifying bet hedging and conservative bet hedging strategies and the combination of these two. It makes the following observations:

- Historically, oil exporters' focus has been on economic diversification as the main adaptation strategy that would safeguard them against commodity price fluctuation and prepare them for the era when oil reserves deplete. Since the turn of the new century, however, energy transition has changed the discourse from peak oil supply to peak oil demand giving a new momentum to diversification efforts in these countries.
- Oil exporters however face real challenges to realise a meaningful economic and fiscal diversification strategy. This is because diversification is only successful if it offers risk reduction by pooling uncorrelated income streams. If these countries diversify into sectors where inputs rely on hydrocarbon infrastructures, they may not achieve sufficient risk reduction. On the other hand, if they diversify into substantively different areas that have little in common with their current primary industry, they run the risk of failing to establish viable non-resource export sectors. Furthermore, achieving diversification requires building human capital and improving education systems as well as extensive reforms to improve the business environment, transparency and economic governance, while fiscal diversification requires introducing taxes, both direct and indirect and reforming prices and subsidies. It also needs streamlining

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<sup>1</sup> Poudineh, R. and B. Fattouh (2020), 'Diversification Strategy Under Deep Uncertainty for MENA Oil Exporting Countries', Oxford Energy Insight, May 2020, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2020/05/Diversification-Strategy-Under-Deep-Uncertainty-for-MENA-Oil-Exporting-Countries-Insight-69.pdf>



procedures, reduction of excess monopoly rents in non-tradable sectors and removing barriers to private sector participation. There is uncertainty about how fast or even whether such extensive economic and institutional reforms can be implemented in many of these countries.

- To expect oil exporters to diversify away from the oil sector, which constitutes their core competitive advantage, and for this strategic sector to play a lesser role in the transition process is not only unrealistic, but also is sub-optimal, as oil exporters will be limiting their risk reduction strategies by not leveraging on their core strengths and their portfolio of assets. After all, the oil sector remains very profitable and enjoys higher margins than any new industries/sectors that governments aim to establish.
- Thus, in addition to diversifying bet hedging strategy, oil exporters should pursue a conservative bet hedging strategy, the essence of which is reflected in the old saying that 'a bird in the hand is worth two in the bush'. The core of a conservative bet hedging strategy is to retain and enhance the competitiveness of the energy sector and increase its resilience against potential risks of disruption. This involves taking a key set of measures including:
  - Lowering production costs and improving oil and gas production efficiency so to compete in any price environment;
  - Decarbonising oil and gas production to enhance competitiveness in world of rising carbon prices;
  - Improving the efficiency of domestic energy use and optimising the energy mix to maximise the oil export potential;
  - Shifting the portfolio towards petrochemicals and non-combustible uses of oil;
  - Decarbonising the final petroleum products to sustain demand for these countries' core products as transition towards decarbonised sources of energy advance.
- The return on a conservative bet hedging strategy is lower than the current default strategy of exporting oil and gas given the costs involved in decarbonization and the lower margins in the new low carbon businesses. But such a strategy lowers the risk profile and improves the resilience of a key sector in oil exporters' economies. Policymakers should recognise that while decarbonization policies require new investments and come at a cost, and thus lower the overall return from existing assets, they also reduce the risk of disruption of their energy sectors and economies in the long run. The availability of cheap to extract oil/gas enables oil exporters to absorb the added cost of decarbonization as a form of internal carbon tax. Also, this strategy is less complex to implement given its close relationship with the existing hydrocarbon business and countries can build on their core strengths. Currently many of the decarbonization technologies are still costly but there is significant room for cost efficiency gains and R&D that these countries can exploit over time. During the transition era, which is highly uneven across the global and the speed of which is highly uncertain, oil exporters can still export oil and benefit from the generated rents, while at the same time, improve the return on decarbonized products.
- Few oil exporters with very well-developed and integrated energy sectors and stable investment and political environment are in a better position to pursue such a strategy. Countries that are able to implement deep and broad economic reforms could pursue a combination of conservative bet-hedging and diversified bet-hedging strategies to varying degrees. But, irrespective of the strategy taken, in the face of disruptive forces such as the energy transition, there is a fundamental trade-off: the cost of reducing long-term risk and increasing resilience is to accept lower expected return on existing assets by investing in measures that align their hydrocarbon sector with low carbon scenarios and thus their economies and government finances need to adjust to the potential of reduced margins.