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Call of Duty

Industrial Policy for the Post-Oil Era

By Reda Cherif, Fuad Hasanov, and Madi Sarsenbayev

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Call of Duty: Industrial Policy for the Post-Oil Era
Prepared by Reda Cherif, Fuad Hasanov, and Madi Sarsenbayev*Authorized for distribution by Oussama Kanaan
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ABSTRACT: Oil-exporting economies face the risk of an acceleration in the energy transition. A risk-based approach calls for urgent preparation for the post-oil era by diversifying exports and transforming the prevailing growth model. We outline the principles of industrial policy to achieve this objective based on the experience of the Asian Miracles and propose a sketch of the strategy required to transform these principles into practice. The key component of the strategy is to select sectors along two dimensions—proximity to the current production structure or capabilities set and a timeframe for results to materialize. The three strategies—snail crawl, leapfrogging, and moonshots—determine how far from the current production structure the selected sectors are. These sectors need to show results both in the short run to jumpstart growth and ensure policy continuity—“quick wins”—and the long run to create a new growth model—“transformative gains.” We argue that the strategy should focus on supporting the exports of sophisticated sectors in both manufacturing and services while capitalizing on complex tasks and activities in existing industries but should leave non-sophisticated sectors such as tourism and non-tradable services to the private sector.

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I. Oil Exporters' Call of Duty

Oil exporters are at the crossroads in the second decade of the 21st century in the face of a looming energy transition. The need to diversify their economies away from oil (and gas) has been a perennial challenge as oil has gone through several “super cycles” since the 1960s, notably in the 1980s when oil price remained low for two decades, triggering one of the deepest economic depressions (Cherif and Hasanov 2016). Yet this time is different. A conjunction of forces is pushing the world toward a rapid energy transition, away from fossil fuels toward renewables for power generation, transportation, buildings, and industry. The resulting permanent collapse in prices and revenues could still occur if some uses of oil and gas such as plastics and fertilizers do not fall victim to a disruption while technologies such as carbon capture, use and storage are unlikely to prolong the fossil fuel era without missing climate change targets (IPCC 2022, IEA 2022, and BP 2023). Since building new industries to replace oil exports takes decades, oil exporters are essentially living on a borrowed time. We argue that by adopting a risk-based approach it becomes clear that speculating on the path of oil prices during the energy transition is not much relevant for the current actions to be taken by policymakers. What matters for oil exporters is that even a small likelihood of a post-oil era starting in the next two decades, resulting in colossal export and fiscal income losses, would imply that diversification must start without delay to change the prevailing growth model and sustain the living standards for the future. This is oil exporters' call of duty.

In the decade following the collapse of oil prices in 2014, most governments in oil-exporting economies, and in particular, in the Gulf region, have acknowledged this duty as well as the inevitability of the transition away from fossil energy in the future. The governments have made bold announcements about economic transformation, typically in the form of vision documents, and undertaken radical reforms and massive investments in projects to diversify their economies. These long-term visions cannot yet be assessed in terms of success or failure. Yet as the visions are translated into concrete policies, we propose a framework to determine what constitutes “true” diversification, avoid the errors of the past, and establish priorities and metrics for assessing progress. In other words, we offer a lens to critically examine the following questions: among the plethora of policies and investment projects, which ones would effectively help prepare for the post-oil era, and are there scale and speed needed to meet the challenge of the energy transition?

“True” diversification requires changing the growth model of oil exporters, switching focus from non-oil GDP to non-oil exports. Although many oil exporters have attempted to diversify their economies, and despite major improvements in infrastructure, education and business environment, the strategies pursued so far have not yielded any major inroads as of the early 2020s. Oil exports still accounted for most exports, and oil revenues are recycled to drive the growth of non-oil GDP in the form of non-tradable production such as transportation, entertainment, and construction. In parallel, total factor productivity and GDP per capita have been falling behind other economies such as the U.S. and emerging economies. Sovereign Wealth Funds (SWFs) created to smooth oil price volatility and save for the future generations will not be sufficient to maintain high standards of living in the face of a rapid energy transition, including the massive SWFs of small rich oil exporters in the Gulf Cooperation Council (GCC) countries. The only path for sustained long run growth is to create a dynamic export sector beyond oil and gas to generate productivity gains ensuring sustainable long-term growth and welfare.

To change their growth model, oil exporters need to go beyond the standard growth recipe, which is not sufficient as it mostly tackles government failures, while many oil exporters' economies are riddled with market failures. GCC countries have successfully created one of the most business-friendly environments, with

minimum regulations, low taxes, and state of the art infrastructure.¹ They also have one of the most flexible labor markets in the world if one considers the quasi-unlimited ability to import skilled and unskilled labor. However, this has not generated any significant nonoil exports. We argue that the lack of progress in creating a dynamic non-oil export sector stems from growth policies that successfully tackled government failures (e.g., the provision of infrastructure) but have not tackled market failures, which are particularly acute in the context of oil-exporting economies. The latter would require state intervention to coordinate efforts to enter tradable industries, mitigate risks, provide financing, and alleviate various constraints related to firm entry, growth, and exporting. In the absence of such intervention, firm entry would be concentrated in less risky activities, typically in non-tradable sectors such as construction, real estate, and services, including tourism. In contrast, high-tech export sectors, which would generate good paying jobs and growth, would be much less attractive.

The way forward for oil exporters is to pursue an industrial policy for export diversification—the key policy objective. Once policymakers make diversification their key goal, other policy priorities would support this ultimate objective. Only by focusing on this objective, policymakers can direct the attention, capacity, and resources required to fulfil it. To do so, they need to create a National Diversification System akin to the National Innovation System (Nelson 1993)²—a strategy with key objectives, sectors to support and resources needed, an institutional apparatus, policy instruments to use, and an accountability framework for firms for the support received.

This strategy is driven by three key principles of industrial policy (Cherif and Hasanov 2019). First, resources need to be directed to the development of sophisticated sectors. Second, export orientation should be the absolute priority, giving incentives for firms to do their best and compete in international markets. At the same time, domestic competition should be encouraged to increase the chances of the industry's survival as not all firms will succeed. It is not about “picking winners,” rather the market will weed out non-performing firms. Third, accountability for the support received is important to avoid rent-seeking behavior and ensure that progress is made toward becoming competitive in international markets. The principles of industrial policy apply to all economies. However, for oil exporters, market failures are starker because of the Dutch disease, oil price volatility, and as we argue in this paper, the risk of a fast energy transition.

Since sector selection is the core of the strategy, it is important to consider the two dimensions as a guide—the current production structure or capabilities' set and a timeframe for the achieved results (“quick wins” in the short run vs. “transformative gains” in the long run). The three strategies—snail crawl, leapfrogging, and moonshots—determine how far from the current production structure the selected sectors are. Essentially, policymakers need to decide the level of ambition and risk they want to undertake to pursue these three strategies. The premise is that more sophisticated sectors are more likely to generate wages high enough to maintain the living standards of most nationals in rich oil exporters. We argue that this industrial strategy would focus on supporting sophisticated sectors in both manufacturing and services while capitalizing on complex tasks and activities in existing industries. In parallel, a “laissez-faire” approach in non-sophisticated sectors such as tourism and non-tradable services would be appropriate.

¹ There is a literature showing the structural effects of infrastructure, especially on jobs creation and growth (e.g., Agenor and Moreno-Dodson 2006, and Estache et al. 2013). However, in GCC countries and many other oil exporters, not only the level of investment was high, but its quality was also high (e.g., roads, airports and internet). Good infrastructure is important, but it is not sufficient to generate non-tradable industries without coordinating with other policies. In fact, some infrastructures could spur even more resources toward non-tradable industries.

² See also Freeman (1995) and Lundvall (2010).

In the following sections, we argue that the energy transition is about to hit an inflection point (Section II), calling for an urgent implementation of an ambitious diversification policy. We then lay down our arguments supporting industrial policy for export diversification and propose a sketch of the National Diversification System, including sector selection as a key component of the strategy (Section III). Section IV concludes the paper.

II. The Energy Transition and Oil Economies

A. The Looming Energy Transition

The energy transition away from fossil fuels accelerated in the 2010s, and it is likely to continue at a faster pace in the 2020s, with deep implications on oil prices and revenues. Several factors related to supply and technology as well as demand and regulation are at play: (i) large investments in the supply and R&D of renewable energy and alternative transportation are driving costs down rapidly. Cost competitiveness of renewables and EVs has become a reality in the early 2020s, marking the next phase of rapid disruption; (ii) a heightened awareness about the effects of climate change is changing consumer preferences and business regulations; and (iii) an increased frequency of extreme weather events is changing the prospects of the effects of climate change. These may lead to many government initiatives, new ones and extensions of those already in place, to limit emissions and accelerate the energy transition.

The levelized cost³ of renewables such as solar and wind dropped at a rapid pace in the 2010s and was already below that of all fossil fuel sources by the end of the decade, including both natural gas and coal (Figure 1.A). The cost competitiveness of renewable energy reached such an extent that for virtually every existing coal power plant in the U.S., it would be 30 percent cheaper (per megawatt) to scrap it and replace it by building from scratch a new solar or wind farm nearby.⁴ Indeed, renewable energy is expected to constitute about 35 percent of global power generation by 2025 (IEA 2023), and investment was turbocharged by energy security worries in Europe in the 2020s. As the issues of intermittency are tackled, this implies that natural gas prices could come under pressure in the next decade.

Meanwhile EVs sales have seen exponential growth, from negligible levels in the 2010s, to 4 percent of global sales in 2020, reaching 14 percent in 2022. Like renewable energy costs, battery costs declined rapidly in the 2010s (Figure 1.B-C). As costs fell dramatically, the adoption of renewables and EVs took off (Figure 2). The outlook for EVs suggests a further acceleration of the EV conquest of global markets, bolstered by stringent regulation. More than 80 countries, including major economies such as China and India and the state of California, announced deadlines for a complete or partial ban of ICE vehicles as early as 2035, and legislation has already been enacted in many nations.⁵ Moreover, dozens of municipalities have more ambitious plans than the national ones in terms of limiting emissions from transportation. Car manufacturers have been vying for the domination of the EV market, preparing to launch close to 300 EV models over 2023-25 alone, many of which are planned to be priced below the average car price.

³ It represents the average cost per unit of electricity generated, including building, installing, and maintaining a wind turbine or solar farm over its life cycle.

⁴ See the Energy Innovation study at <https://energyinnovation.org/publication/coal-cost-crossover-3-0-local-renewables-plus-storage-create-new-opportunities-for-customer-savings-and-community-reinvestment/>.

⁵ https://en.wikipedia/wiki/Phase-out_of_fossil_fuel_vehicles#Methods.

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