GOING DOWNSTREAM: AN ECONOMICAL OPTION FOR OIL AND GAS EXPORTING COUNTRIES?

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Overview

This study surveys normative and positive reasons for oil and gas exporting countries whether to enter or not downstream. More precisely, the following reasons - price differentiation (export taxes), from industrial organization (about vertical integration and property rights), and arguments based on fostering development, on a comparative advantage, on hedging and a few others (e.g., opportunities due to climate mitigation) – are surveyed from a normative and a positive aspect and then tested against the facts. Few normative justifications meet the test of explaining what is going on. Local refining can serve as a partial hedge against the vagaries of the oil price, refining for domestic and regional markets can be economical and even local subsidies can be justified to some extent. However, all of those justifications seem to be mismanaged politically by granting the national oil companies a monopoly and by very large subsidies on refined products. Instead, current downstream activities seem to serve rather political (security of supply in case of sanctions but also less benign objectives) and managerial ('empire building') than economic objectives.

Methods

From the perspective of a resource exporting country, it seems very tempting to export final products instead of the raw material. Indeed, this topic is high on the political agenda of many resource-exporting countries, in particular in OPEC and GECF, and here in particular in the Middle East and North African (MENA) countries on which this paper focuses. This strategy of going down the value chain adds value domestically, possibly profits and leads to other domestically valued benefits like local employment and development. Furthermore, upgrading the raw material offers the potential of positive spillovers in terms of knowledge that the extractive industry may not provide.

The objective of this paper is to discuss the reasons why resource exporting countries should and do go downstream and to test these explanations against empirical facts. The potential justifications of pursuing this strategy of going down the value chain, accounts for normative as well as positive arguments.

Results

Most of the energy exporting countries hand out large subsidies on refined products on a magnitude that is hardly defendable; after all, oil and gas exporting Norway has among the highest gasoline prices in the world. The actual subsidy policy is not only inefficient but also even dangerous from a long run perspective. The reason is that energy demand is very sluggish because fuels are tied up with corresponding appliances (cars, heating, air conditioning, etc.); this applies to subsidizing the fuel inputs of a particular industry as well. As a consequence, for decades low domestic prices have built up an enormous oil demand growth, which cannot go on if these countries want to keep exporting. However, given this dynamic build of high and growing demand, only very high price jumps can stop this development, but are politically very costly if not suicidal for many governments. In this case, sacrificing a downstream industry, even if it were efficient, can help to stop this inefficient subsidization policy because importing gasoline does not allow hiding the implicit subsidies and the implications for the budget.

Sacrificing a domestic refining industry can commit a government to restrain subsidies, maybe even to eliminate them over time due to budgetary needs. We see this as one of the most urgent needs for OPEC governments even if one does not care about global warming.

Conclusions

Our analyses suggest that economic efficiency can provide at best a partial and presumably only small justification of the actual downstream activities pursued by energy exporting countries. In particular, the usual arguments from the industrial organization about integration - avoiding double marginalization, transaction costs and property rights - fail except for integrating downstream activities that serve local or regional markets. This policy makes economic sense if these markets (including neighboring markets) ensure an efficient scale of operation. However, the potential gains must be weighted against the costs of a local refining industry. Economically, if costly expats are needed for downstream industries but more important are the costs of a monopoly for the local market for refined products that allows for ‘the best of all profits. Therefore, they lack not only economic efficiency but attract rent seekers. That the (nationalized) national oil companies run the refining business as monopolies adds to those threats.

The arguments from development and spillovers provide more room for a defense but are ultimately not convincing in particular if looking at the activities that the countries pursue. And it is also hard to pin down the comparative advantage of say a local refining industry for exports overseas, in particular, if accounting for costs: higher transport costs, the at least temporary need of foreign experts, and last but not least the cost loss a monopoly.

There are some economic reasons for OPEC countries going downstream yet those opportunities, risky from the beginning such as favorable domestic energy prices, seem to have been squandered, by and large. This unsatisfactory implementation seems to be the result of the constraints that politicians face and in some cases the (grand and possibly misguided) ambitions of politicians and bureaucrats.

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