

Geopolitical Threats to Oil and the Functioning of the International Oil Market

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1. Resource nationalism

There is no easy and immediate connection between resource nationalism or political instability and global supply of oil and gas. This is emphatically not because political developments are irrelevant for influencing oil and gas supplies, but because this influence is highly variable and unpredictable. Political factors act as one of the elements which prevent the oil and gas upstream industry from behaving in a perfectly economic-rational way. **Therefore political considerations should not be counted as the primary determinants of the oil and gas markets, but should be one of the factors entering into the consideration of political leaders when they look at those industries.**

The existence of conditions of financial stability and growth – motivating the transformation of a physical asset, such as oil and gas in the ground, into financial assets, or infrastructural/industrial investment – is crucially important in determining the attitude of producing countries towards the desirable level of production and exports. **Financial instability,**

negative returns on financial assets and protectionism against the oil producing countries' industrial exports all contribute to supporting the view that it is best to keep oil and/or gas in the ground.

Similarly, expectations about the future level of oil and gas prices also influence political attitudes towards oil and gas production and exports. If the market expects that supply will become scarcer in the face of growing demand, then the incentive to slow down production and exports is increased. The adoption of aggressive policies aimed at decarbonisation and energy efficiency may have an ambivalent effect: there may be a negative announcement effect, because producers will fear demand destruction and invest less in expanding or maintaining capacity; and a positive market effect, when demand is effectively reduced, *ceteris paribus*. **Hence the policy indication is not to entertain policy objectives which cannot realistically be reached, and emphasise cooperation and pragmatism rather than confrontation and maximalism.**



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2. Military threats

Historical experience on oil supply disruption due to armed conflict has shown that oil and gas infrastructure is more resilient to armed conflicts than normally expected. Significant damage happens in the immediate vicinity of combat zones and in the rare cases in which one side gains control over the installations of the enemy and sabotages them.

Interstate wars have decreased in recent decades, while asymmetric conflicts involving non-state actors (including civil wars) have not. Civil wars cause only limited damage to installations, but hinder investments. Conflicts can therefore disrupt the normal course of oil and gas upstream production and thus prevent the optimal production level being reached. The solution is primarily to encourage producers to invest in reserve (unused) capacity and, secondarily, to maintain stocks. The key producing country in this context has historically been Saudi Arabia, which has also maintained the most significant cushion of unused capacity – at substantial investment cost.

3. Restrictions of passage

It is normally thought that the most dramatic situation would be the closure of the Strait of Hormuz. Our analysis has shown that closing the Strait is not easily accomplished and in any case a good part of the Gulf production could be evacuated from other ports of the region, and that the shortage of crude oil could be made up thanks to strategic stocks under the IEA frame. The recommendation in this respect is to maintain readiness to reorient oil flows as required (primarily through the East-West pipeline in Saudi Arabia). The burden of this task falls primarily on the oil producing countries. At the same time it is necessary to maintain the military capability to reopen the Strait of Hormuz, in the unlikely event that it might effectively be closed.

The European Union should aim at mitigating the danger of closure of other critical sea lanes which might be caused by navigation accidents through congested passages; the most critical situation being that of the Turkish Straits. An option would be to seek a revision of the Montreux Convention of 1936, to allow for the imposition of size limitations and passage charges on tankers, to discourage free riding and create conditions for the commercial development of pipeline by-passes. **The EU should aim at facilitating investment in infrastructure adapted to reduce the danger of accidents and vulnerability** by offering financial incentives and promoting even more stringent regulations for oil and chemical tankers.

4a. Functioning of the International Oil Markets

Our analysis has pointed to the unsatisfactory functioning of the international oil markets and the resulting uncertainty and volatility in oil prices as the main security threat for future oil supplies. Price volatility and unpredictability is at the heart of the feeling of insecurity that is perceived by European citizens and governments, while in fact physical availability, especially for oil, has never been in question. For gas, episodes of supply interruptions have been due to disputes related to pipeline transmission.

Price volatility and unpredictability discourages investment at all stages of the industry and increases the danger of supply interruptions.

The root cause of price volatility is the rigidity of demand and supply in the short term. These are impossible to change, and can only be alleviated through encouraging the accumulation of larger stocks.

However, our analysis has pointed to the possibility of improving the situation by increasing the relative weight of trading in real ('wet') oil barrels rather than future paper contracts and their multiple derivatives. This very much depends on the will and initiative of major oil producing countries, but the EU should engage in a dialogue to encourage the adoption of better price discovery methods.

The EU can also move in the direction of shifting the emphasis of price discovery from spot to forward pricing (normally less volatile) by imposing a time lag between the announcement and the implementation of price changes at the retail oil products level. The possibility of agreeing with major oil producers on a flexible and adjustable price band should also be studied, to avoid price bubbles and/or spikes.

The management of stocks is crucially important for containing price volatility. Strategic stocks are not useful in this respect because they are not supposed to be used for market intervention. Rather, the EU should establish a public agency to invest in larger storage facilities to be offered for use to oil producers (be they national or international oil companies) at low cost. The agency should be empowered to issue certificates convertible in physical barrels: oil deposited into the storage would be exchanged for such certificates, and certificates could be used to withdraw oil from storage. Stored oil certificates should be designed and regulated in such a way that they will be accepted as collateral by financial institutions. The availability of an 'oil bank' of this kind would encourage investment in capacity additions in anticipation of demand, thus contributing to more comfortable supply conditions.

The issue of demand security, which the producing countries have raised with increased frequency in connection with demands that they increase investment in additional capacity, may be approached through the encouragement of longer-term supply contracts based on take-or-play clauses – similar to those long practised in the gas industry. This would serve the purpose of guaranteeing those producers that are willing to invest in unused capacity against the danger that they might be squeezed out of the market and forced into the position of residual supplier, whereby they would be called to absorb all fluctuations in physical demand.

Another way to approach the same problem is to encourage vertical reintegration. Specifically, the national oil companies of major producing countries should be encouraged to invest downstream in the European markets establishing their own distribution networks, so as to acquire direct access to the final consumer.

In summary, we have proposed six key policies to address the issue of volatility and its negative consequences on supply security:

- Encourage the freer trading of major crude oil streams, notably those from the Gulf
 - Establish ‘crude oil exchanges’
 - Based on auctions of forward contracts for different qualities of crude
 - Allowing secondary trading
 - Preferably based in ‘third’ countries and close to key loading/unloading points: Ceyhan, Alexandria, Bahrain; Trieste, Rotterdam
- Increase reliance on long-term pricing
 - Impose an obligation to fuel retailers to announce price changes with 3 months advance notice, and a minimum lag of 15 days between one announcement and the next
 - Rationale: retailers can hedge their risk, individual consumers cannot
 - This would encourage retailers to resist price increases and transfer price decreases to final consumers
- Enforce an internationally agreed price band
 - Declaratory approach is not sufficient, but combination with previous proposals may be more credible
 - In a context in which oil is a source of oil revenue for both sides, mutual revenue guarantees are possible and would strengthen the credibility of the band

- In essence, governments of producing and consuming countries would exchange a collar whereby if prices go above upper strike producers transfer revenue to consumers, and if price goes below lower strike the opposite holds
- Manage stocks (see point 5.1.4)
 - Increase oil storage capacity in proximity to market and establish an oil lending window
 - Rationale: producers would be encouraged to produce a bit more and store, and to invest in capacity increases
 - Oil stored is more secure than oil in the ground
 - Japan has set the example
 - Storage to be built at major loading points – reinforces proposal for crude oil exchanges
- Offer demand security through take or pay contracts
 - A formula that has given stability to the gas market for a long time
 - Unpopular with the EU because of priority to competition: however if no security of demand is offered, why should producing countries invest in additional capacity?
 - China is showing the way
 - Linked to storage and long-term trading proposal
- Encourage vertical integration
 - Encourage national oil companies of the oil producing countries to integrate downstream in refining and marketing in the importing countries
 - Rationale: producers will not fall short in supplies to refineries and distribution networks which they own

4b. Strategic stocks

Our analysis of strategic stocks evidenced the crippling ambiguity of the rules that govern their utilisation. In actual practice, strategic stocks have been used very rarely and have had a very limited impact. They have not prevented or helped containing major price oscillations, which are at the heart of supply insecurity.

We do not conclude that strategic stocks should be abandoned, but their importance should be revisited in favour of a more flexible policy of encouragement to the accumulation of industry stocks, as discussed in the previous paragraph.

The desirable size of strategic stocks should be based on the N-1 standard (i.e. be designed to compensate for the duration of one year for the disappearance due to war of all exports from the single largest global exporter, which today is Saudi Arabia; or of all exports to the EU of the single largest supplier of the EU, which today is Russia) keeping in mind that: a) not all uses of oil are strategically important and demand management should contribute to addressing supply shortfalls and b) the EU is not the only affected importer. In this light, currently existing stocks are quite sufficient.

5. Refinery localisation determinants and evolving oil product specifications

The principal issues facing European refined product supply are:

- Europe has continued to increase its reliance on imports of refined diesel and kerosene products from areas including Russia and India and presently European refineries remain unsuitable for producing the refined products demanded by the European market
- There is a declining demand for the excess gasoline that is produced by European refineries both in domestic and in export markets which further exacerbates the imbalance that presently exists
- Adhering to environmentally motivated and even seemingly subtle product specification changes presents a challenge for the European refinery industry in that such modifications are immensely costly and time consuming and do not add to the capital of the existing refinery. Such costs make investment conditions within Europe challenging
- Regulatory uncertainty with regard to future carbon costs and the economic and the technical impact of proposed legislation on refineries are issues that continue to stifle refinery investment and increase investment uncertainty

Our analysis has shown that these problems significantly affect Europe's security of oil supply and must be addressed in their own merit. In other words, security of oil products supply is not the same thing as security of crude oil supplies.

The following remedies are proposed:

1. Firstly, to intensify the drive to synergize worldwide oil product specifications to facilitate the trade of refined products. The adoption of a more global and standardised refined product quality has made tentative progress with the creation of new refineries in the Middle East and India, which can process fuel in order to meet European fuel specification standards. More however needs to be done.
2. A pragmatic shift to importing refined products at the expense of crude may facilitate serving the imbalance in European consumption of oil products but would further diminish security of supply by reducing flexibility and substitutability of suppliers.
3. There presently exists a substantive differential in the taxation levied on diesel and gasoline automotive fuels to the point where diesel is approximately 20% cheaper than gasoline at the pump. Such differential should be reconsidered; if it were to be reduced this would result in increased consumer demand for gasoline cars and subsequently alleviate the demand constraints for diesel over time.
4. Greater coordination is needed between refineries and legislators in the setting of targets for the industry and the safeguarding of the indigenous refining industry.
5. More transparency is needed in the long-term pricing of carbon. Refineries are long-term, highly capital intensive projects and a common criticism from the refining industry at present is the hindrance of investment through the uncertainty of how much they will have to pay for CO2 emissions.
6. Consideration must be given to the unavoidable fact that if refineries are going to make the products that the market wants then they will have to increase emissions. Refining is a highly energy intensive activity.
7. The continuing and accelerating introduction of biofuels in EU road fuels may help inasmuch as it would mitigate demand for conventional automotive fuels in the European Union. Biofuels, if produced in significant volumes, could displace trade for other products. Biodiesel could reduce diesel imports while ethanol would cause an increase of gasoline exports. While the former is desirable, the latter aggravates existing problems.

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