

Broadening Europe's Gas Policy, A Few Reflections

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Introduction

The tragic conflict in Ukraine has profound and wide-ranging implications on many issues, including international relations, military alliances, commodity markets, and macroeconomics. Among them, the disruption of Russia's natural gas supplies to Europe, its repercussions on the power markets, and the slowdown of the European economies certainly get the utmost attention.

Before the war started, the European energy system lacked safety buffers and was already particularly acute to disruptions. The purpose of this brief note is neither to deplore that unfortunate situation nor to discuss the root causes of the European Union (EU)'s growing dependency on Russian gas supplies, as these topics have already been extensively discussed (see, e.g., Grekou et al., 2022). Instead, we intend to focus on the European policy responses implemented to alleviate the energy crisis and broaden policy perspectives.

In response to the war, the European Commission unveiled in March 2022 a new action plan, *REPOWEREU*, followed by a host of measures aimed at sharing the burden of possible shortages. Some of these policy decisions have relatively short-term horizons. They typically aim to improve energy security this winter (e.g., the decision to impose a minimum filling rate of 80% for underground gas storage by November 1, 2022, gas and electricity conservation campaigns, interfuel substitutions in power generation). Others (e.g., the strengthening of the EU's ambitious climate strategy or the diversification of energy supplies) *de facto* have long-lasting effects and will reveal their full potential over longer time horizons.

As is frequently the case in such circumstances, urgency is paramount, and omissions can occur in preparing those policy responses. In what follows, we identify and discuss four lines of supplementary measures that could enrich the European policymakers' toolbox. They respectively focus on: (i) the role assigned to competition policy, (ii) strategic stockpiling, (iii) the design of a European gas supply strategy, and (iv) the European presence in the Liquefied Natural Gas (LNG) trade.

1 - On the role of competition policy in tight energy markets

In times of shortages, careful monitoring of the oligopolistic behaviors that prevails in wholesale energy markets is crucial. As the short-run price elasticity is low, such a situation can exacerbate the firms' inclination to exert market power and reap large profits.

In Europe, the public policy debate on this issue has so far concentrated on these supranormal profits and whether some form of exceptional taxation of the en-

ergy sector should be imposed. Two related points are intensely discussed. The first one is the magnitude of the taxes and the need to delineate arbitrarily between "normal" and "extraordinary" profits. The second focuses on the implementation details that have profound implications. As taxation is imposed at the national level, some form of coordination among the EU member states is needed to prevent fiscal loopholes and preserve fair competition among rival firms competing in the internal energy market.

Surprisingly, the discussion on these profits has so far overlooked the role of competition policy, despite its ability to provide power instruments to moderate market power and ensure that the observed profits solely reflect the effects of scarcity pricing and not anti-competitive behaviors. At least two instruments can be utilized to preserve the surplus yielded by European consumers. First, the European subsidiaries of foreign gas producers operating in the internal gas and electricity markets deserve some form of close monitoring. As the upstream operations of these vertically integrated firms are located outside the EU's jurisdiction, one should prevent their downstream operations from strategically exacerbating the high prices observed on the EU internal market.

Second, competition and regulatory authorities must prevent a possible fragmentation of the internal energy market by ensuring the efficient utilization of the existing infrastructure. In particular, special attention is needed regarding the efficiency of the so-called "Use it or Lose it" rules stipulated in third-party access provisions. By design, these measures are aimed at preventing capacity hoarding. They impose traders to resell their unused access rights in secondary markets. As usual, implementation details (e.g., timing, access conditions, penalties) matter, and it is appropriate to verify whether the released rights can effectively be purchased and used by other traders. Particular attention is needed in the case of transnational infrastructure (Carcanague and Hache, 2017) because spatial arbitrages already showed signs of market power before the crisis (Massol and Banal-Estañol, 2018).

2 - On strategic stockpiles

So far, the discussion on storage has focused on seasonal considerations related to the preparations for the coming winters. However, a persistent issue in energy policy analysis is how to prepare for disruptions in unstable global gas markets. Given the very high cost associated with a sudden shortfall in supply, it can be opportune for the EU to consider the creation of a strategic stockpile of natural gas that is aimed at providing

a source of gas during a disruption. Similar stockpiles already exist for oil. A range of questions must be addressed in creating such a strategic reserve. How large should that inventory be? What principles should govern its use? How large is the associated cost, and is that cost commensurate with the benefits? The development of underground gas storage needs an adapted geological endowment, which some EU member states lack. Because of this asymmetric geological endowment, a strategic stockpiling policy must be designed at the EU level, which calls for an appropriate sharing of the costs and benefits. That sharing must preserve the cohesion between EU countries and prevent free-riding. Indeed, a strategic reserve can create a free-rider problem because the benefits of lowered European gas prices from a reserve drawdown would be felt in all member states, not just in the country where the gas is stored (Hogan, 1983). Another issue is that such a stockpile must be built up gradually without exacerbating the shortages that are currently observed.

3 – Designing a common supply policy?

The crisis has shed light on the lack of European strategic planning for natural gas supplies and calls for adopting a common supply strategy for the EU. From the recent series of European leaders' visits to gas-rich nations, one might wonder whether member states cooperate or compete to secure gas resources.

Beyond that competition, the lack of coordination at the EU level also has profound repercussions on the geography of future European supplies. Absent a common strategy, the new LNG plants that will supply Europe will most likely be constructed in areas endowed with abundant capital and gas resources: in North America and the Middle East (Qatar). A significant portion of US LNG exports are based on shale resources whereas fracking is widely banned across the EU because of environmental concerns. Regarding the Gulf region, one can wonder about the effects of that "laissez-faire" approach that consists of abandoning the Russian risk for a geopolitical bet on the Strait of Hormuz.

Interestingly, significant gas resources are also present in countries not currently exporting gas to Europe. They are located in Eastern Mediterranean (Cyprus, Israel, Lebanon), Africa (Mozambique, Senegal, Mauritania), and South America (Argentina). The deployment of these new exports requires a reallocation of EU import strategies (and the associated carbon budget) and some proactive supporting policies to help finance these assets.

Incidentally, this crisis has prompted the resurgence of an old idea: creating a European purchasing structure. In essence, such a structure would be similar to the approach retained by the EU to purchase vaccines during the COVID pandemic. Such a measure could reinforce the EU's bargaining power. As usual with cooperation, it must provide member states with an incentive to cooperate. The conditions for stable and incentive-compatible participation are yet to be analyzed. That identification must account for the profound dif-

ferences in the member nations' energy mixes, making the case more complex than the vaccine one when all European countries faced a similar problem.

4 – The European presence in the LNG trade

The crisis has also highlighted the profound microeconomic transformations affecting LNG trade. Historically, that trade was governed by long-term contracts, as they were needed to finance expensive liquefaction plants. Under that old model, LNG vessels were shuttling between a liquefaction plant and regas one, which led to inefficient transportation at the global level (Tchung-Ming and Massol, 2010). Following the liberalization reforms, the contractual logic evolved to allow spatial arbitrage based on market prices (e.g., Baba et al., 2020). If the spatial price spread between two destinations becomes large enough, re-routing or re-exports from the region with low prices to the area under stress could occur.

Contrary to the case of oil, the spatial integration of global gas markets is not perfect (Grekou et al., 2022), and significant regional price differentials can persist. Studies of Qatar's shipments to Japan and the United Kingdom (Ritz, 2014) show that, under imperfect competition, an LNG exporter may find it profitable to maintain discriminatory prices by strategically limiting the extent of spatial arbitrage. For Europe, it is difficult to counter such strategies decided by foreign producers, as competition law is ineffective against non-European producers.

That said, the evolution of the business models of European petroleum multinationals is a source of hope. These companies have developed significant LNG intermediation activities. Their financial strength allows them to acquire destination-free volumes from liquefaction project developers via long-term contracts. The firm then aggregates these volumes, conducts a logistic streamlining, and allocates them to different markets. These midstream activities encourage investment in LNG supply. As these companies are headquartered in Europe, the EU competition policy can be used as a threat to prevent possible tariff discrimination.

Conclusion

While the crisis certainly reinforces Europe's determination to accelerate its energy transition, the current energy scene calls for a powerful reappraisal of the EU's contemporary approach to natural gas. By nature, this brief note is an complete analysis of that complex topic. Our intention is more modest and aims at providing policymakers with a broadened perspective that can usefully enrich the public policy debate on natural gas.

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