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Buyer Power as a Tool for EU Energy Security

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In this policy brief we address the recently revived idea of a common energy policy for the EU - an idea of the EU acting as a whole when dealing with energy security issues. We focus on a particular mechanism for such a common policy – the substantial "buyer power" of the EU in the natural gas market. We start by relating the "buyer power" mechanism to the current context of the EU energy markets. We then discuss the substitutability between "buyer power" and alternative energy security tools available to the EU. In particular, we argue that two main energy security tools - the diversification of the gas sources and the liberalization of the internal gas market - may counteract such buyer power, either by decreasing the leverage over the gas supplier(s) or by undermining coordination. Thereby, investing both into diversification, market liberalization and energy policy coordination may be inefficiently costly. These trade-offs are often overlooked in the discussion of EU energy policy.

The security of energy supply has been part of the European political agenda for more than half a century – at least, since the creation of the European Coal and Steel Community (ECSC) in 1952. However, the Community's view on the energy security policy and its desirable tools has been changing over time. In the early decades of European integration energy security issues were predominantly seen as belonging to the national competence level. Due to substantial variation in the energy portfolios and energy needs among the Member States, attempts to create a common energy policy were largely unsuccessful. The first large move towards a common energy policy came in the mid-1980s with the idea of developing a common internal energy market. The focus was on liberalization, privatization and integration of the internal markets, with an objective of achieving more competitive prices, improving infrastructure, and facilitating cooperation in case of energy supply shocks. In particular, the internal market was seen as a tool to (partially) overcome the disparity in the energy risk exposure among the Member States. A considerable effort was put in this direction and a certain progress was accomplished.

The second half of 2000s has been characterized by a number of gas crises between one of the largest EU gas suppliers, Russia and the transit countries - Ukraine (in 2006, 2007 and 2009) and Belarus (in 2004 and 2010). These crises repeatedly caused reduction, and sometimes even complete halts, of Russian gas flows to the EU. As a result, the focus of the EU energy policy shifted towards measures ensuring the security of external energy supply. The policy debate has been stressing the dependency of the EU on large fuel suppliers, such as Russia in case of gas, and the need to lower this dependency. Suggested remedies included diversification of gas sources (in particular, away from Russian gas – such as construction of Nabucco pipeline or introduction of new LNG terminals), strengthening of the internal market, and more efficient energy use. The debate was further heated by the construction (and late 2011 launch) of the Nord Stream pipeline, which,

according to popular opinion, would further increase the EU dependence on Russia.

In what follows, we address this external energy policy debate. We argue that the dependence per se is not necessarily dangerous for the EU and can be counteracted with due coordination between the Member States. Further, we argue that in dealing with large gas suppliers, there is certain substitutability between such coordination and other proposed energy policy measures, such as diversification of the energy routes or further market liberalization. Thereby, the EU would be better off by carefully choosing an appropriate mix of energy policy tools, rather than by getting all of them at once.

Indeed, the dependency of the EU on Russian natural gas is large. The share of Russian gas in the total EU gas consumption is around 20%,[1] and for the group of EU Member States importing gas from Russia this share constitutes around one third.[1] Furthermore, in a number of EU Member States - such as Austria, Bulgaria, Estonia, Finland, Lithuania and Slovakia - the share of Russian gas in total consumption is above 80%.[3]

However, it is important to remember that the dependency is mutual. The current share of gas exports to the EU of total Russian gas exports is around 55%,[1] and these gas exports constitute around one fifth[7] of Russian federal budget revenues. These observations suggests that the EU as a whole would also possess a substantial market power in the gas trade between Russia and the EU, and this market power can be exercised to achieve certain concessions.

More precisely, this situation could be viewed through a prism of what the economic literature refers to as "buyer power". Inderst and Shaffer (2008) identify buyer power as "the ability of buyers (i.e., downstream firms) to obtain advantageous terms of trade from their suppliers (i.e., upstream firms)".[5] The notion of buyer power is typically used in the context of vertical trade relationship between a small number of large sellers and a few large buyers. As there are only a few agents, each with considerable market power, the outcome of such trade would typically be determined through some kind of bargaining procedure, rather than via a market mechanism. In such bargaining, the extent of buyer power depends on the seller's outside option, or, in other words, on the ease for the seller to cope with a loss of a large part of its market.

Consider for example a single seller serving a few buyers. Intuitively, were there a disagreement between the seller and a small buyer, it should be relatively easy for the seller to reallocate the freed-up capacity to the remaining buyers, making each of them consume just a little bit more of a product. However, the larger is the freed-up capacity of the seller in case of a disagreement, the more difficult it is for the seller to reallocate this capacity to the rest of the market. Moreover, allocating this relatively large capacity to the remaining buyers is likely to suppress the price and lower the monopoly profits of the seller. Inderst and Wey (2007) show that, under some relatively standard modeling requirements, "the supplier's loss from a disagreement increases more than proportionally with the size of the respective buyer".[6] In other words, an increase in the size of the buyer undermines the seller's outside option, thereby weakening the seller's bargaining position and allowing the buyer to negotiate a preferential treatment.

It is relatively straight-forward to see the parallels between this argument and the gas trade relation between the EU and Russia. In a sense, the buyer power theory provides an economic (rather than political) rational for the September 2011 European Commission proposal to coordinate the external energy policy in order to "exercise the combined weight of the EU in external energy relations".[2] At the same time, the large buyer mechanism also allows us to see more clearly, why such a coordination policy may come into conflict with the other proposed energy policy tools.

In particular, consider the diversification of the gas supplies across producers. The argument

for the diversification is that it decreases the dependency on each particular supplier, thereby lowering the exposure to the idiosyncratic risks of these suppliers. However, lower volumes of gas imports from such suppliers imply a loss of the EU's buyer power vis-a-vis these suppliers. This would worsen the terms of the respective gas trade deals or undermine the stability of the supply. Of course, this argument suggests by no means that a diversification strategy is useless or harmful for the EU energy security; however, one would need to account for the relative importance of lower dependency vs. lower buyer power in making the diversification decisions. In other words, the EU can achieve the same level of gas supply stability by investing either into further diversification of gas supply or into better coordination among the members. Trying to achieve both objectives at the same time may result in efficiency loss, at least from the gas supply security perspective. Importantly, this tradeoff has been largely overlooked in the discussion of the EU energy policy.

Another energy policy objective pursued by the EU in the last decades is the creation of an integrated and deregulated internal gas market. Again, the relationship between this energy policy objective and the buyer power is two-fold. On one hand, better integration of internal gas markets would help to even out the disparities in the gas supply risk exposure across the Member States, thereby facilitating cooperation and lessening the tensions between the energy security interests on the national vs. community-wide level. On the other hand, gas market liberalization and a push towards more competitive gas trade environment within the EU may come into conflict with the supranational coordination of buyer power. Once large state-run gas purchasing actors are dissolved and replaced by multiple private, not necessarily domestic, and possibly small market participants, it might be much more difficult, if at all possible, to achieve coordination in bargaining with the gas supplying side. As Finon and Locatelli (2007) argue, "if the major gas buyers are weakened in the name of the principles of short-term competition, their bargaining power and their financial capacity to handle large import operations would be reduced".[4] Moreover, there is a clear conceptual contradiction between coordination among gas buyers and the competitiveness principles of the European gas market. Again, this tradeoff needs to be taken into account in the common energy policy design.

Finally, it is important to mention that the "large buyer" argument is less relevant for the EU markets for other fuels, such as oil, liquefied natural gas, or coal. The key difference comes from the inherent structure of the gas market, as compared to the one of oil, coal, etc. Indeed, the EU imports most of its natural gas via pipelines, which makes it difficult for both sides of the deal to switch to an alternative partner. In other words, the natural gas market serving the EU is effectively a local market. Instead, fuels like oil, liquefied natural gas, or coal are traded more globally, and are much more fungible (that is, it is much easier to find an alternative supplier or a consumer). Global markets imply smaller market shares of the EU (indeed, the EU consumes only about 16 %[1] of the world oil). This, coupled with better fungibility of oil, LNG, etc. undermines the power of the large buyer argument for other fuels.

To sum up, the EU has a noticeable potential for improving its position in the gas trade deals and enhancing the stability of its gas supplies. This potential comes from the large buyer power possessed by the EU in the gas market, and is in line with the long considered and recently revived idea of "one voice" common energy policy. At the same time, the extent to which the buyer power can be used as an energy policy tool may be limited by the other policy instruments, such as diversification of gas supplies, a shift towards LNG or alternative fuels, or internal market liberalization. This has to be taken into account in choosing the optimal energy security policy mix.

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Our own calculations based on Ross Business Consulting data from February 06, 2012 and Russian Federation Federal Law N 357 about Federal budget for 2011

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