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Is cutting Russian gas imports too costly for the EU?

Chloé Le Coq, SITE, Elena Paltseva, SITE and Jesper Roine, SITE
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Abstract. This brief addresses the economic costs of a potential Russian gas sanction considered by the EU. We discuss different replacement alternatives for Russian gas, and argue that complete banning is currently unrealistic. In turn, a partial reduction of Russian gas imports may lead to a loss of the EU bargaining power vis-à-vis Russia. We conclude that instead of cutting Russian gas imports, the EU should put an increasing effort towards building a unified EU-wide energy policy.

Soon after Russia stepped in Crimea, the question of whether and how the European Union could react to this event has been in the focus of political discussions. So far, the EU has mostly implemented sanctions on selected Russian and Ukrainian politicians, freezing their European assets and prohibiting their entry into the EU, but broader economic sanctions are intensively debated.

One such sanction high on the political agenda is an EU-wide ban on imports of Russian gas. Such a ban is often seen as one of the potentially most effective economic sanctions. Indeed the EU buys more than half of total Russian gas exports (BP 2013), and gas export revenues constitute around one fifth of the Russian federal budget (RossBusinessConsulting, 2012 and our calculations). Thus, by banning Russian gas the EU may indeed be able to exert strong economics pressure on Russia.

However, the feasibility of such sanction is questionable. Indeed, in 2012 Russia supplied around 110 bcm of natural gas to EU-28 (Eurostat), which constitutes 22.5% of total EU gas consumption. There are a number of alternatives to replace Russian gas, such as an increase in domestic production by investing in shale gas, or switching to other energy sources, such as nuclear, coal or renewables. However, many of the above alternatives, e.g. shale gas or nuclear power, involve large and time-consuming investments, and thus cannot be used in the short run (say, within a year). Others, such as wind energy, are subject to intermittency problem, which again requires investments into a backup technology. The list of alternatives implementable within a short horizon is effectively down to replacing Russian gas by gas from other sources and/or switching to coal for electricity generation. Below, we argue that even if such a replacement is feasible, it is likely to be very costly for the EU, both economically and environmentally.

Notice that any replacement option will be automatically associated with a significant increase in economic costs. This is due to the fact that a substantial part of Russian gas exports to Europe (e.g., according to Financial Times, 2014 – up to 75%) are done under long-term "take-or-pay" contracts. These contracts assume that the customer shall pay for the gas even if it does not consume it. In other words, by switching away from Russian gas, the EU would not only incur the costs of replacing it, but also incur high financial or legal (or both) costs of terminating

the existing contracts with Russia, with the latter estimated to be around USD 50 billion (Chazan and Crooks, Financial Times, 2014).

Due to this contract clause, own costs of replacement alternatives become of crucial importance. The coal alternative is currently relatively cheap. However, a massive use of coal for power generation is associated with a strong environmental damage and is definitely not in line with the EU green policy.

What about the cost of reverting to alternative sources of gas? First, in utilizing this option, the EU is bound to rely on external and potentially new gas suppliers. Indeed, the estimates of potential contribution within the EU – by its largest gas producer, the Netherlands – are in the range of additional 20 bcm (here and below see Zachmann 2014 and Economist 2014). Another 15-25 bcm can be supplied by current external gas suppliers: some 10-20 bcm from Norway, and 5 bcm from Algeria and Libya. This volume is not sufficient for replacement, and is not likely to be cheaper than Russian gas.

This implies that the majority of the missing gas would need to be replaced through purchases of Liquefied Natural Gas (LNG) on the world market, in particular, from the US. This option may first look very appealing. Indeed, the current gas price at Henry Hub, the main US natural gas distribution hub, is 4.68 USD/mmBTU (IMF Commodity Statistics, 2014). Even with the costs of liquefaction, transport and gasification – which are estimated to be around 4.7 USD/mmBTU (Henderson 2012) - this is way lower than the current price of Russian gas at the German border (10.79 USD/mmBTU, IMF).

However, this option is not going to be cheap. A substantial increase in the demand for LNG is likely to lead to an LNG price hike. Notice that, at the abovementioned prices, US LNG starts losing its competitive edge in Europe already at a 15% price increase. Just for a very rough comparison, the 2011 Fukushima disaster lead to 18% LNG price increase in Japan in one month after disaster. Some experts are expecting the price of LNG in Europe to rise as much as two times in these circumstances (Shiryaevskaya and Strzelecki, Bloomberg, 2014).

Moreover, it is not very likely that there will be sufficient supply of LNG, even at increased prices. For example, in the US, which is the main ”hope” provider of LNG replacement for Russian gas, only one out of more than 20 liquefaction projects currently has full regulatory approval for imports to the EU. This project, Cheniere Energy's Sabine Pass LNG terminal, is planned to start export operations no earlier than in the 4th quarter of 2015 with a capacity of just above 12bcma (World LNG Report, 2013). Of course, there are other US and Canada gas liquefaction projects currently undergoing regulatory approval process, but none of them is going to be exporting in the next year or two. Another potential complication is that two thirds of the world LNG trade is covered by long-term oil-linked contracts (World LNG Report, 2014), which significantly restricts the flexibility of short-term supply reaction, contributing to a price increase. All in all, LNG is unlikely to be a magical solution for Russian gas replacement.

All of the above discussion suggests that it may be prohibitively expensive for the EU to do *completely* without Russian gas. Maybe the adequate solution is partial? That is, shall the EU cut down on its imports of natural gas from Russia, by, say, a half, instead of completely eliminating it?

On one hand, this may indeed lower the costs outlined above, such as part of take-or-pay contract fines, or costs associated with an LNG price increase. On the other hand, cutting down on Russian gas imports may lead to an important additional problem, loss of *buyer power* by the EU.

Indeed, the dependence on the gas deal is currently mutual – as outlined above, not only Russian gas is important for the EU energy portfolio; the EU also represents the largest (external) consumer of Russian gas, with its 55% share of the total Russian gas exports. In other

words, the EU as a whole possesses a substantial market power in gas trade between Russia and the EU, and this buyer power could be and should be exercised to achieve certain concessions, such as advantageous terms of trade from the seller etc.

However, the ability to have buyer power and to exercise it depends crucially on whether the EU acts as a whole to exercise a credible pressure on Russia. That is, the EU Member States may be much better off by coordinating their energy policies rather than diluting the EU buyer power by diversifying gas supply away from Russia. This coordination may be a challenge given the Member States' different energy profiles and environmental concerns. Also, such coordination requires a stronger internal energy market that will allow for better flow of the gas between the Member States. While demanding any of these measures would be double beneficial: they will improve the internal gas market's efficiency, and at the same time reinforce the EU's buyer power vis-à-vis Russia.

To sum up, the EU completely banning Russian gas imports does not seem a feasible option in the short run. In turn, half-measures are not necessarily better due to the loss of the EU's buyer power. Thereby, the best short-term reaction by the EU may be to put the effort into working up a strong unified energy policy, and to place "gas at the very back end of the sanctions list" for Russia as suggested by the EU energy chief Gunther Oettinger (quoted by Shiryaevskaya and Almeida, Bloomberg, 2014).

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Chloé Le Coq

Stockholm Institute of Transition Economics (SITE)
Chloe.LeCoq@hhs.se
http://www.hhs.se/SITE/Staff/Pages/ChloeLeCoq.aspx

Chloe Le Coq is an assistant professor at the Stockholm School of Economics at the Stockholm Institute of Transition Economics (SITE) since 2007. Her main research interests are industrial organization and experimental economics, with particular focus on the energy markets and their regulation.
She has held visiting positions at University of Purdue, the University of California Energy Institute at Berkeley, and National Singapore University. Her recent work includes theoretical and experimental studies of anti-trust policy, auctions, forward trading.

Elena Paltseva

Stockholm Institute of Transition Economics (SITE)
Elena.Paltseva@hhs.se
http://www.paltseva.com

Elena Paltseva is a Research Fellow at SITE, Stockholm School of Economics and a Visiting Professor in Economics at the New Economic School, Russia. She received her PhD in Economics from Stockholm School of Economics in 2006.
Paltseva's main research interests are Political Economics, Applied Microeconomics and Industrial Organization.

Jesper Roine

Stockholm Institute of Transition Economics (SITE)
Jesper.Roine@hhs.se
http://www.hhs.se/SITE/Staff/Pages/JesperRoine.aspx

Jesper Roine is Associate Professor at the Stockholm School of Economics and Deputy Director at SITE with responsibility for policy and outreach. He holds a Ph. D. in Economics from Stockholm University and has held visiting positions at Northwestern University (MEDS, Kellogg) and the London School of Economics (STICERD).
His main research areas are political economy, income and wealth distribution and long-run development, areas in which he has published several articles in international journals. He also teaches undergraduate and graduate level courses, does policy work, and regularly contributes to the economics blog www.ekonomistas.se (in Swedish) of which he is one of the founders.