EU-RUSSIA GAS BLUES

By Giacomo Luciani

EU-Russia gas relations have come under the spotlight following the annexation of Crimea and the eruption of civil war, with direct Russian involvement, in Eastern Ukraine. Yet tensions in gas relations have been building up for the last two decades, and are primarily related to Europe's strategic decision to unify the gas markets of the member countries and enforce competitive and transparent trading conditions.

Gazprom, Russia's state-controlled natural gas company and the largest extractor of natural gas in the world, forcefully opposed this strategy in association with its traditional partners, incumbent gas importing companies. Following a long war of attrition that has evolved over the better part of the last twenty years, it now appears that Gazprom is on the verge of accepting the transformation of the European gas market, and is behaving competitively to preserve its market share. The Ukrainian conflict has been instrumental in precipitating this shift, facilitating the task of the European Commission in coalescing consensus on the need to rein in Gazprom's excessive market power.

Whether European dependence on Russian gas is bound to diminish, however, is less clear. Russian gas remains an essential component of Europe's gas supply, and abundant Russian reserves guarantee that the European Union will be able to continue relying on Russia for the foreseeable future.

Russian-European gas relations have always been politically sensitive. Russian gas exports started in the early 1970s (Germany in 1973, Italy in 1974), and were largely commercially motivated: Put simply, Russia discovered a lot of gas, much in excess of its own domestic needs; and the major European countries were motivated to diversify away from oil following the price increases of 1973 and subsequent years.[1] Europe was eager to avoid excessive dependence on Middle Eastern oil, especially from the Persian Gulf. Importing

Giacomo Luciani teaches at Sciences Po, leads the Master in International Energy program at the Paris School of International Affairs, and directs the Executive Master in Oil and Gas Leadership program at the Graduate Institute of International and Development Studies in Geneva.

Journal of International Affairs, Fall/Winter 2015 Vol. 69, No. 1.

contract with Russia in 1960, it met strong criticism from NATO allies.[2] But gas imports were even more controversial, as the United States imposed a ban on sales of turbines and parts needed to pressurize the gas for long-distance transport; and the European allies developed their own technology to bypass the ban. Throughout the 1980s, the idea that dependency on Russian gas supplies might undermine the resolve of key European allies such as Germany, France or Italy was a recurrent theme in NATO debates.

The main bone of contention between Europe and Gazprom was Europe's policy efforts to establish a single, competitive and transparent internal gas market.

Yet, dependence on oil supplies from the Middle East remained the primary European preoccupation. Thus, when the Soviet Union collapsed, the EU was quick to engage in energy diplomacy with the Russian Federation and the other former Soviet Union republics, with the aim of establishing a close partnership centered on energy trade and investment.

Europe's preoccupation with stability of gas supplies was the main motivation for launching the idea of a European Energy Charter.[3] Eventually, the United States, Canada and Japan became involved in the negotiations, and the European focus of the initiative was partially lost. But it was always clear that the Charter and the subsequent Energy Charter Treaty were expected to be the foundation of an innovative kind of energy partnership, which would be reserved to the countries of the former Soviet Union (and not extended to those of the Middle East and North Africa).

But, as it turned out, the Russian Federation maintained reservations on the Energy Charter Treaty's stipulations concerning investment and transit: Although the Russian government, under Boris Yeltsin, had signed the treaty, the Duma never ratified it. The EU insisted for years that Russia ratify the treaty, to no avail—until Vladimir Putin formally issued a decree terminating Russia's involvement with the Energy Charter in August 2009.[4]

Among other important provisions, the Treaty enshrined the principle of Third Party Access (TPA) to transport infrastructure, notably gas pipelines, and prohibited transit countries from interrupting the flow. Russia was in an ambivalent position concerning TPA; on the one hand, it would have benefitted with respect to its transit across Ukraine, but on the other hand, it might have been forced to concede transit to Caspian producers wishing to export to Western Europe. In the end, Moscow opted to seek alternative solutions for guaranteeing transit through Ukraine.

Delivery at Baumgarten

It should be underlined that political preoccupations were evidently always present in the minds of Soviet technicians and planners who designed the original system of pipelines to transport gas from the Western Urals to Western Europe. It is not by chance that all pipelines converged at an export point in Ukraine (Uzghorod—at the time, the possibility of Ukraine becoming an independent country separate from Russia was not a consideration) and crossed to Western Europe through what was then Czechoslovakia, a single country under Soviet military occupation since Prague's Spring in 1968. The main line ended at Baumgarten, in Austria, while a separate spur served East Germany. From Baumgarten, various pipelines served West Germany, Italy and other Western European countries.

The pipeline network was conceived for the political setup existing at the time and made little sense after the collapse of the Soviet Union. In several cases, pipelines entered and exited Ukrainian territory; the Ukrainian border had simply been considered unimportant. As such, it was clear from the immediate aftermath of the collapse of the Soviet Union that something would need to be done to guarantee correct functioning of the system.

Initially, concerns focused on the technical conditions of the main pipeline in Ukraine, which was feared to be seriously wanting. The EU launched several technical cooperation projects aimed at assessing the good health of the pipelines in Ukraine, and paid for the main Western European gas companies to survey the system.[5]

The implication—then and in subsequent years, up to the present—was that the EU should invest in the Ukrainian pipelines to ensure their integrity and functionality, and gain a measure of control. However, Brussels itself cannot directly invest in pipelines. There were attempts to encourage the Western European importing companies to do so, but these met with one major difficulty: The import contracts specified (and still do, to an extent) Baumgarten, Austria as the delivery point for Russian gas, i.e., the point at which the ownership of the molecules changes and ceases to be Gazprom's. This meant that there was no commercial justification for European importing companies to invest upstream of Baumgarten, as delivery to that point was (and continues to be) the responsibility of Gazprom.[6]

Gazprom never accepted a change in the delivery point, nor saw with favor any suggestion that the European importers should invest in the pipeline in Ukraine, because it has pursued the strategic goal of integrating downstream and reaching the final consumer in Germany, Austria, Italy, or elsewhere in Europe.[7] Gazprom could see very well that the value of the molecules increased significantly as they crossed borders and reached their final market. Thanks to their market power, European importers were able to get a much better price from the final consumer than they were paying to Gazprom, thus enjoying a significant "gas rent."[8] This was quite evident both to the European Commission and to Gazprom: The former moved to eliminate this rent by enforcing competition; in contrast, Gazprom aimed at increasing its share of the rent through a strategy of downstream integration, which, while falling well short of creating effective gas-to-gas competition, would nevertheless have enhanced the security of European supply.

But in fact, although concerns for security of supply became progressively more important in European Union discourse—especially since 2004 and 2007, when enlargements brought countries into the Union that are fully dependent on Russia for their gas—the main bone of contention between Europe and Gazprom was Europe's policy efforts to establish a single, competitive and transparent internal gas market.

The European Commission's strategic stance

Following the successful example of the United States and UK, the European Commission started pushing for the establishment of a single, competitive gas market in the mid-1990s. To scholars of the process of European integration, the determination with which successive Commissions pursued this goal is no surprise. In fact, in setting its agenda, the Commission must always be mindful of the legal basis for its action, which is found in the EU treaties. The Commission does not have a strong mandate on energy issues in general; it is only in the 2007 Treaty of Lisbon, amending the 1993 treaty establishing the European Union, that energy was listed for the first time as an area for shared competence between the Union and member states. Previously, it was exclusively reserved for member states, and even after Lisbon, the latter Commission maintained exclusive control on the most crucially important aspects, notably taxation and the structure of their respective energy balances. With respect to energy security, the Commission also has restricted legitimacy, as member states are primarily responsible for their security and defense policies.

In contrast, the Commission enjoys a very strong mandate for the creation of a single European market across all industries and services. It also enjoyed, from the very beginning of the process of European integration, a strong mandate in matters related to competition and fighting dominant and monopoly positions. Market segmentation, whether geographic or other, is anathema under European law, as is any other form of restrictions to trade within the Union. It is therefore to be expected that the Commission will pursue the objective of a single, competitive and transparent European gas market; and, notwithstanding the occasional reticence of this or that member state, it will in the end prevail.

As could also be expected, the Commission's drive met with resistance on the part of the entrenched national gas monopolies, as well as of Gazprom, which is the main source of gas for most of them. (Other external suppliers, notably Algeria, were no less hostile to the Commission's initiative.) European gas importers had long enjoyed a cozy and highly profitable relationship with Gazprom and its predecessor, the Ministry of Gas of the Soviet Union, despite occasional tensions (due in particular to Gazprom's desire to integrate downstream, which importers obviously did not view with favor).[9] This was a relationship based on large-volume, long-term import contracts with tight take-or-pay provisions and rigid national market segmentation, worth billions of dollars. Relations were cordial, with frequent exchange of courtesies and gifts at the top—bordering on reciprocal corruption, but justified by the supreme importance of the deal for both sides.

The closeness of relations may have contributed to convincing Gazprom that the Commission would bark but not bite, and the traditional way of conducting business might continue. This is certainly what Gazprom heard from its traditional interlocutors, the importing companies. In other words, resistance to the Commission's drive to establish a single European gas market was not just a matter of "the Russians versus us;" it was equally a matter of the European incumbents leading resistance to the Commission. Security of supply certainly was an argument, which they could leverage with their respective national governments.[10]

This game has not ended yet. Although it is by now clear that the incumbents have lost out, they still can take initiatives, launch investment projects, and influence their governments to revert to seeking a privileged bilateral relationship with Gazprom, while playing down the competitive ambitions of the Commission. The incumbent importers in the Nord Stream and South Stream projects are examples of such behavior.

The Onset of Gas-to-Gas Competition in Continental Europe

The resistance of incumbents was quite successful for an extended period of time. Notwithstanding three successive packages of legislation, there was precious little competition on European gas markets outside of the UK until at least 2009. Demand was rapidly growing, pulled by increased use of gas in power generation; and supply was certainly not abundant. In any market in which supply is barely sufficient to meet demand, competition is unlikely to thrive. It is only where excess supply is available that sellers will engage in competing for customers, and this did not happen before 2009. Since then, European gas demand has steadily declined, due to the drive toward renewable sources, coupled with cheap coal and an irrelevant price for CO2 emission permits. Hence, gas importers have been chasing customers, and competition has thrived.

Abundant supply greatly accelerated the process of maturation of competitive gas hubs, and previously insufficient transmission capacity has been increased to the point that today gas prices move closely in parallel between different hubs most of the time.[11] At the same time, Gazprom initially insisted on linking the price of gas to the price of competing petroleum products on the European market, even though gas has long ceased to compete primarily with petroleum products in Europe.[12] The prompt recovery of oil prices in 2009 and 2010 opened a wide gap between the price of gas imported via pipeline from Russia and the price of imported liquefied natural gas (LNG), in a market characterized by declining demand.

The position of the European importers of Russian gas quickly became untenable as they started taking huge losses. A major German importer, RWE (not the most important among Gazprom's German customers), resorted to arbitration and won a reimbursement for past excess payments in 2013.[13] Other importers, such as E.ON and ENI, preferred to negotiate, and in the end Gazprom has been forced to concede a change in the pricing formula that may guarantee the competitiveness of Russian pipeline gas with hub prices.[14]

Politically, the reality of significant losses has weakened European importers and strengthened the hand of the Commission. All former major importers are currently in a process of strategic repositioning, in different directions: E.ON is focusing on renewable sources; ENI on upstream oil and gas; Gaz de France has merged with Suez and renamed itself ENGIE to better adapt to the energy transition. Their political influence is much reduced.

The Commission has forcefully pursued its pro-competition agenda. In 2007, in the context of the third legislative package for the implementation of the single European gas market, a new rule was introduced mandating that individuals and companies from third countries cannot acquire control over an EU Transmission System Operator unless there is a specific agreement between the EU and that third country. This was specifically meant to prevent Gazprom from acquiring control of major pipelines within the EU—unless Russia accepted key EU policy tenets such as third party access and freedom of transit.[15]

Finally, in September 2012, the Commission launched an investigation accusing Gazprom of "abusing its dominant market position in upstream gas supply markets in Central and Eastern European Member States, in breach of Article 102 of the Treaty on the Functioning of the European Union."[16] The opening of the case caused visible irritation in the Kremlin, which reacted by putting pressure on key member countries' governments, insisting that Russia only could guarantee security of gas supply.

Gazprom's miscalculations

Gazprom further miscalculated in January 2006, and then again in January 2009, when the flow of gas to Western Europe was curtailed (as in 2006) or interrupted (2009) due to a price and payments dispute with Ukraine.[17] The company officially expected that Ukraine would refrain from using gas crossing its territory and destined for Western Europe. In fact, it is hard to believe that they truly expected this to happen. It was clear that in the middle of winter, Ukrainian consumers could not be left to freeze just because the gas was not intended for them. Gazprom accused Ukraine of stealing the gas and eventually, in 2009, cut off supplies completely. Consequences were especially severe for the countries of Southeastern Europe.[18]

Gazprom may have expected that the EU, out of concern for security of supply, would intervene to facilitate a better deal with Ukraine. Instead, the main impact of the company's attitude was to destroy its image as a reliable supplier that Europeans could trust, even despite political tensions in the past and difficulties in mutual understanding in the present. From that moment, there was no longer a tradeoff between security of supply, guaranteed by old-style import contracts from Russia, and the pursuit of competition. Russia had become unreliable, and the objective could only be diversification of import sources and reduction of Russia's share in European gas supply.

The pursuit of greater security led to the enforcement of the so-called "N-1 standard," which all EU member states were called to respect by the beginning of December 2014.[19] This standard is borrowed from the practice of power grids, and envisages that in the event of a disruption of primary gas supply infrastructure, the remaining infrastructure (N-1) has the capacity to deliver the necessary volume of gas to satisfy total gas demand for a period of sixty days of exceptionally high gas demand during the coldest period, statistically occurring every twenty years.[20]

The position of individual member countries with respect to the N-1 standard was widely divergent. Some member countries already met the N-1 standard through national production, storage or sufficiently diversified import sources. Other countries had to undertake substantial investment in adding import and transmission infrastructure that would allow them to meet the standard. This meant investing in LNG regasification plants and adding reverse flow capability to numerous existing pipelines, so that in the event of a cutback of supplies from the East, the central and eastern members of the Union could be supplied from the West.

Both initiatives, though motivated by concern for security of supply, also enhance the competitiveness of domestic gas markets by creating potential for new imports from different sources, which previously was not there. Gazprom's ability to geographically segment the European market, asking different prices to customers in different countries, has been further undermined; and since the outbreak of hostilities in the East, Ukraine has been able to import some gas from the West.

The connection between greater security of supply and enhanced potential competition is important to encourage respect of the N-1 standard. This was shown very clearly in the case of Lithuania, which fast-tracked the establishment of a regasification terminal that became operational in October 2014.[21] The mere fact of being able to diversify imports allowed Lithuania to obtain a 23 percent reduction in gas prices from Gazprom.[22] As of December 2014, the only country significantly short of meeting the N-1 standard is Bulgaria.[23]

Gazprom's drive to diversify export routes

Gazprom has long attempted to reduce its dependence on transit across Ukraine and attempted to strengthen bilateral relations with its most important partners through the pursuit of alternative pipelines. It has also spoken of acquiring an LNG export capability, but so far the only operational LNG plants in Russia are in Sakhalin, very far from the European market. The two main manifestations of Gazprom's strategy to reconsolidate old bilateral relations have been the Nord Stream and the South Stream projects.

The Nord Stream undoubtedly enhanced security of supply for Germany, and received considerable support from the German government for this reason. It was viewed with considerable hostility by the Baltic countries and Poland, as it offered Gazprom the possibility of serving its German customers, while at the same time denying supplies to them.[24] (One could say that if the German government were serious about the creation of a single European gas market, it would have insisted on a land route rather than a pipeline on the floor of the Baltic Sea connecting Russia directly to the German shore.) In this case, a national perspective may well be said to have prevailed: The deal had been signed by Chancellor Schröder, and upon leaving government, he was duly appointed chairman of the pipeline company. While a perfectly legal development, this was also a signal that Gazprom knows how to reward good friends, and will not hesitate to do so.

The importance of the Nord Stream for European security of gas supply cannot be understated. A "stress test" assessment, the results of which were published by the Commission in October 2014, confirmed what was intuitively evident: The outcome of an interruption of Russian gas supply through Ukraine would be less problematic than a total cut-off of Russian gas supplies. In the first case, gas would continue to flow through Nord Stream; not so in the second case.[25]

Even in light of such security considerations, the Commission has refused to grant an exception to Third Party obligations to the Ostsee-Pipeline-Anbindungsleitung pipeline (OPAL), which receives gas from the Nord Stream and takes it to other existing main grid pipelines. Because that pipeline is fully within the EU, an exemption allowing Gazprom to use the entire capacity was not granted. Gazprom received an exemption for the Nord Stream itself, but in fact cannot use the full capacity of the Nord Stream because it cannot use the full capacity of OPAL.

The main reason that led Moscow to abandon the original South Stream project is similar: The Commission refused to grant an exception to TPA obligations for the stretch of pipeline that would cross EU territory in Bulgaria and further.[26] That meant that, had it built the overland section of the South Stream pipeline, Gazprom would have been allowed to use only 50 percent of its capacity. In both cases, Brussels' imposition of TPA rules can be said to run up against the objective of increasing European security of supply.

Laying a new long-distance pipeline is an expensive undertaking. The Nord Stream cost about $8.2 billion, and TurkStream, the new incarnation of South Stream, is expected to cost some $10 billion.[27, 28] Although foreign investors were involved in the Nord Stream and the South Stream projects (none are involved in TurkStream), the fact is that pipeline projects are generally undertaken through the creation of a project-specific pipeline company and financed through highly leveraged project financing. The banks will underwrite the project risk only if the pipeline company has sufficient ship or pay engagements with companies intending to use the capacity. What this means is that in fact Gazprom has to guarantee the cash flow needed to serve the debt, and pay for the pipeline even if it were not to be used. Considering that the final sales price for the gas can only be what prevails on the freely traded European hubs, the bottom line is that the cost of the pipeline is entirely to the detriment of the producer's net revenue at the wellhead.[29]

Thus, for Gazprom or the Russian government to decide a politically motivated cut-off in gas flows through newly-built pipelines, the cost is not only the loss of gas sales revenue, but also the expense of still having to serve the pipeline debt. In other words, new pipelines are more of a hostage in the hands of the importer than a weapon in the hands of the exporter—provided that the importer's market is competitive and prices are arrived at independently of transmission costs.

In the light of this reasoning, the European Commission should have viewed both pipeline projects as enhancing European gas security of supply, and moved to encourage them. Yet, the preoccupation for fostering competition and limiting the role of Gazprom in the European market trumped security concerns. In the end, Gazprom has been forced to accept the idea of behaving competitively to be able to defend its market share in the key European markets.

In the case of the Nord Stream, whose capacity will double from 55 to 110 cubic meters per year (BCMY) according to announcements issued in June 2015, Gazprom has now accepted auctioning gas at the German border to independent buyers, who could then access the unused capacity available in the OPAL pipeline.[30] At the beginning of September 2015, Gazprom launched several auctions to sell spot gas, indicating that Gazprom accepts that Russian gas will compete with Russian gas on the German market.[31]

In the case of the TurkStream, whose capacity is expected to reach 63 BCMY, including 47 BCMY to be supplied to the Turkish-Greek border, it appears that Gazprom would also be ready to sell a substantial share of the gas on a spot basis at the border.[32] In fact, 16 BCMY would be allocated to Turkey, and would essentially serve the purpose of idling the pipeline that currently serves the Turkish market passing through Ukraine, Moldova, Romania, and Bulgaria; the rest would be made available to European importers at the Turkish-Greek or Turkish-Bulgarian border. Some of this gas could substitute for current shipments across Ukraine to Baumgarten, but this would require the building of a new pipeline in the Balkans or an increase of the capacity of the TAP pipeline from Turkey to Italy, which is currently in the process of being built. In addition, if existing long-term contracts were to be preserved, European customers would need to agree to a change of delivery point from Baumgarten to the Turkish border. None of this is to be taken for granted, and in fact some analysts believe that only the first of four phases (capacity 16 BCMY each) will be built, unless the potential for exports to EU customers is clarified. Even so, Gazprom's strategic move clearly indicates a willingness to fight for market share and readiness to now accept gas-to-gas competition.

TurkStream certainly gives Gazprom the tool to be able to flood the Turkish market with gas and drive the price on a future Turkish gas hub to such low levels that alternative imports from Azerbaijan, Iran, or Iraq might be seriously discouraged. This, however, would be an expensive strategy for Gazprom to adopt and one that, in the end, would favor European customers by offering access to cheap gas on the Turkish hub. In essence, then, the Commission could still claim to have won its battle with Gazprom.

The impact of the Russo-Ukrainian conflict

We have thus far shown that the EU-Russia gas conflict has roots that go back to the collapse of the Soviet Union and the rejection on the part of Gazprom of the prospect of a single, competitive, and transparent EU gas market. Gazprom underestimated the determination of the Commission to pursue this goal and the support that it had from member countries. Gazprom mistook the sometimes contradictory behavior of EU member countries as readiness to continue on the basis of old bilateral gas relations, where security of supply was ensured in the context of long-term, take-or-pay contracts with gas prices indexed to oil products. As such, the conflict was not about the political use of gas supplies but about the future shape of the European gas market. Concerns about security of supply became progressively more important due to EU enlargement and interruptions resulting from the Russo-Ukrainian gas conflict, yet remained subordinate to the objective of fostering gas-to-gas competition.

It is on this background that the occupation of Crimea and civil war in Eastern Ukraine came to bear. Diversification of gas imports away from excessive independence on Russia already was considered an important objective, but became an even more important one after Russian revisionism in Ukraine became apparent.

Concerns for the possible use of gas as a tool to influence Europe's political condemnation of Russian acts arose almost immediately. The Commission conducted studies to estimate the potential impact of an interruption of Russian gas supplies.[33] Two main scenarios were envisaged: one in which only the flow through Ukraine would be interrupted, the second in which all of Russia's gas supplies would be cut off. The first scenario assumed a repetition of the situation in 2006 and 2009, when non-payment of supplies or divergent opinions on prices led Gazprom to cut back on gas supplied to Ukraine, or hostilities in Eastern Ukraine damaged the pipelines. The second scenario assumed a will on the part of the Russian government to punish EU member countries for their political support to Ukraine.

The studies found that if cooperation could be achieved within the EU as well as with non-EU members of the Energy Community (including Ukraine, Moldova, and Serbia), a six-month supply interruption in winter would be manageable with limited physical shortfall, which could be addressed through a reduction in demand—which price increases might be sufficient to bring about. The Baltic countries, Finland and Poland, would be most affected under the second scenario, while for the southeastern European countries, there would be little difference between a complete interruption of Russia supplies and an interruption limited to gas flowing through Ukraine.

In fact, a complete interruption of Russian supplies never was realistic. Gas exports to Europe are too important for the Russian economy to be jeopardized in a tit-for-tat escalation of economic hostilities. Although revenue from gas has been much less important for the Russian government than revenue from oil exports, it remains the country's primary export and linkage to the European economy.[34] Russia has always acted to defend and possibly increase its share of the European gas market.[35] Supply interruptions in 2006 and 2009 were clear miscalculations, not signals intended to show what might happen if the EU steps up the level of political conflict.

Thus, the net effect of the Ukrainian crisis has been to embolden the European Commission to resist granting TPA exemption to the OPAL and Northern European natural gas pipelines, to make life difficult for the South Stream project, and to press on with the antitrust case against Gazprom: After having hesitated for close to three years following the initial announcement of an inquiry, the Commission served a so-called statement of objections to Gazprom in April 2015.[36] At the time of writing, Gazprom's answer was not yet public.

Conclusion

Russia has viewed all of these actions as being politically motivated, but they are well aligned with the long path to the implementation of a single European gas market. If anything, the Commission initially slowed its action to avoid piling up reasons for tension with Moscow, but it certainly cannot be said to have opened a new front. The main objective of the Commission for the past twenty years has been the pursuit of a single European gas market, in the belief that gas exporters would feel obliged to compete in order to access it and defend their market share. So far, developments are vindicating this belief, as Gazprom is finally accepting that it shall have to compete to preserve market share.

Diversification of European gas imports away from Gazprom may or may not occur. If Gazprom is determined to defend its market share, and ready to lower prices to the extent needed to shut out other potential competitors, reliance on Russian gas may well continue. What has changed already is the political significance of such reliance: Russian gas is no longer an issue of necessity, but one of convenience; through investing in improved interconnections within the Union and increased LNG regasification capacity, the EU could today withstand a significant or even complete interruption in Russian supplies. Prices would of course increase, but enough gas—especially LNG—is available from other sources, and more is expected to become available in the coming years. Gazprom will need to keep on competing if it wants to maintain a large share of the EU market.

NOTES

1 Jonathan Stern, "Gas Pipeline Cooperation Between Political Adversaries: Examples from Europe," Chatham House, January 2005.

2 On this deal see, among many other sources, Daniel Yergin's The Prize, Chapter 26.

3 The concept of a European Energy Charter was first proposed by the Prime Minister of the Netherlands, Ruud Lubbers, at a European Council meeting in Dublin in 1990. The Charter was signed in The Hague in 1991. It was a document of principles which opened the door to the negotiations of the subsequent Energy Charter Treaty, turning principles into enforceable norms. On the Treaty, see Thomas T. Wälde, The Energy Charter Treaty, Kluwer, 1996.

4 "Putin Rejects Energy Charter Treaty," Moscow Times, August 7, 2009. See also Andrei Belyi, "Russia's Position on the Energy Charter," Chatham House, April 2012.

5 Projects were launched in the context of the INOGATE program and involved all major importers, notably Ruhrgas (today E.ON), Snam, and Gaz de France.

6 At that time I was vice president for international projects at ENI, and participation in INOGATE projects was one of my responsibilities. I discussed several times this point with the leadership of Snam, then an ENI subsidiary, and was always told that the company could not justify investing in pipelines upstream of Baumgarten because the delivery point was there, and what happened upstream of that point was Gazprom's responsibility.

7 (I) I raised this point with various Gazprom representatives in several conferences, and always drew an angry reaction on their part. It is obvious that Gazprom could very easily have solved the problem of transit through Ukraine by accepting to deliver gas at the Russian-Ukrainian border rather than at Baumgarten. This move would have shifted the responsibility of monitoring and guaranteeing transit through Ukraine to the western European importers. But Gazprom intended to integrate downstream, and pursued every opportunity to buy stakes in pipelines closer to their final markets.

(II) The most important example of Gazprom's downstream drive has been the establishment of Wingas in 1993 as a joint venture between BASF's Wintershall and Gazprom. Wintershall owns 50 percent plus one share and Gazprom 50 percent minus one share. In 2013, the two companies agreed on a complete takeover by Gazprom, but the deal had to be called off because of political hostility in Germany. See Wall Street Journal, "BASF, Gazprom Call Off Asset Swap Amid Political Tensions," December 18, 2014. However, very recently the deal has been revived, and it remains to be seen whether it will survive the European Commission's objections to Gazprom's abuse of dominant position, as discussed below. See Financial Times, "BASF and Gazprom revive asset swap agreement," September 4, 2015; and Wall Street Journal, "BASF, Gazprom Resurrect Asset Swap," September 4, 2015). But Gazprom has marketing subsidiaries in most EU member countries, not just in Germany.

8 Reinforced by destination clauses that Gazprom wanted to insert in all long-term supply contracts. Gazprom formally renounced destination clauses in 2003 ("Commission reaches breakthrough with Gazprom and ENI on territorial restriction clauses" European Commission Press Release, October 6, 2003) but in fact the major importers of Russian gas have been very prudent in encroaching in each other's territory, abstaining from going much beyond the classic oligopolistic "hostage taking" strategy.

9 The creation of the Wingas joint venture was part of a tug-of-war with Ruhrgas (now E.ON), the main importer of Russian gas in Germany. This was later patched up, leading to Ruhrgas acquiring some Gazprom equity. Ruhrgas' equity interest in Gazprom grew between 1998 and 2003, reaching 6.4 percent of total equity. It was later progressively dismantled in several asset swaps through which E.ON acquired interests in upstream assets in Russia and sold to Gazprom its gas marketing business in Hungary (see "Press Release: E.ON sells Gazprom stake," E.ON, December 1, 2010; and "Press Release: E.ON and Gazprom Reach Understanding on Participation in Gas Field," E.ON, July 13, 2006).
The similarly, in Italy, Gazprom threatened its traditional customer ENI with building a competing pipeline (the Volta project) in association with rival Edison. The project was abandoned after several concessions on the part of ENI and the latter's involvement in the Blue Stream pipeline project connecting Russia with Turkey, which itself was meant to cement the reestablished close partnership between the two companies. In other words, ENI diverted the attention of Gazprom from the Italian to the Turkish market.

10 Incumbent importers still maintain that Gazprom is the best guarantor of security of supply, and that the European Union should pursue close cooperation with Russia and not insist on enforcing a competitive market. This line has resonated positively with several EU member countries, including the German, Italian, Hungarian, and Greek governments.

[11] Beatrice Petrovich, "European Gas Hubs: How strong is price correlation?" Oxford Institute of Energy Studies working paper NG79, October 2013; and Beatrice Petrovich, "European Gas Hubs Price Correlation: Barriers to convergence?" Oxford Institute of Energy Studies working paper NG91, September 2014; and Beatrice Petrovich, "The Cost of Price De-linkages Between European Gas Hubs," Oxford Institute of Energy Studies working paper NG101, September 2015.

[12] Jonathan Stern, "Is There A Rationale for the Continuing Link to Oil Product Prices in Continental European Long-Term Gas Contracts?" Oxford Institute of Energy Studies working paper NG19, April 2007; and Jonathan Stern and Howard Rogers, "The Transition to Hub-Based Pricing in Continental Europe: A Response to Sergei Komlev of Gazprom Export," Oxford Energy Comment, February 2013.

[13] Christoph Steitz and Vera Eckert, "Gazprom dealt pricing blow as loses court case to RWE," Reuters, June 27, 2013.

[14] "Press Release: E.ON Reaches Settlement with Gazprom on Long-Term Gas Supply Contracts and Raises Group Outlook for 2012," E.ON, July 3, 2012; and Guy Chazan, "Eni in Spot Market Gas Deal with Gazprom," Financial Times, May 23, 2014; and "Press Release: Eni: Agreement Signed with Gazprom on Revision of Gas Supply Terms," ENI, May 23, 2014.

[15] "'Gazprom Clause' Issues Russia Ultimatum For Energy Co-operation," EurActiv, September 20, 2007.

[16] "Press Release: Antitrust: Commission opens proceedings against Gazprom," European Commission, September 4, 2012.

[17] Jonathan Stern, "The Russian-Ukrainian Gas Crisis of January 2006," Oxford Institute of Energy Studies, January 2006; and Simon Pirani, Jonathan Stern, and Katja Yafimava, "The Russo-Ukrainian Gas Dispute of January 2009: A comprehensive assessment," Oxford Institute of Energy Studies working paper NG27, February 2009.

[18] Aleksandar Kovacevic, "The Impact of the Russia–Ukraine Gas Crisis in South Eastern Europe," Oxford Institute of Energy Studies working paper NG29, March 2009.

[19] "Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC," Official Journal of the European Union, November 12, 2010. It should be noted that while the three successive legislative packages aiming at enforcing a single competitive European gas market had taken the legal form of directives, in 2010 the legal form chosen was that of a regulation. In European law, a directive is legislation that is not immediately enforceable and must be transformed into national law by the parliaments of each member country (with the possibility of variations in the national interpretation of the directive); in contrast, a regulation is immediately enforceable throughout the Union.

[20] Ibid.

[21] "Floating LNG Terminal 'Independence' Sails Into Klaipėda," DELFI by the Lithuania Tribune, October 27, 2014.

[22] Milda Seputyte, "Lithuania Grabs LNG in Effort to Curb Russian Dominance," Bloomberg, October 27, 2014.

[23] "Report on the implementation of Regulation (EU) 994/2010 and its contribution to solidarity and preparedness for gas disruptions in the EU," European Commission Staff Working Document, October 16, 2014.

[24] The first move by Gazprom to diversify its export routes away from Ukraine was the Yamal-Europe pipeline, which reaches Germany crossing Belarus and Poland. Gazprom chose to launch an entirely new pipeline, the Nord Stream, rather than increasing the capacity of Yamal-Europe, in an obvious statement of dissatisfaction with the attitude of Poland.

[25] "Communication from the Commission to the European Parliament and the Council on the Short Term Resilience of the European Gas System: Preparedness for a possible disruption of supplies from the East during the fall and winter of 2014/2015," European Commission, October 16, 2014.

[26] Jonathan Stern, Simon Pirani, and Katja Yafimava, "Does the Cancellation of South Stream Signal a Fundamental Reorientation of Russian Gas Export Policy?" Oxford Energy Comment, January 2015.

[27] "Fact Sheet: Nord Stream By The Numbers," Nord Stream, November 28, 2013. https://www.nord-stream.com/download/file/documents/pdf/en/2013/11/nord-stream-by-the-numbers_177_20131128.pdf.

[28] The TurkStream figure is quoted in "Russia Presses Ahead With Plan for Gas Pipeline to Turkey," New York Times, January 21, 2015. It refers to the offshore portion of the pipeline only, and it is not clear

whether it relates to the first phase only or the full projected capacity. Any such cost estimate is very uncertain, but the point is that it is not a cheap project.

[29] That said, Chi Kong Chyong, Pierre Noël, and David M. Reiner have argued (in "The Economics of the Nord Stream Pipeline System," EPRG Working Paper 1026 and Cambridge Working Paper in Economics 1051, September 2010) that the unit cost of shipping through the Nord Stream is clearly lower than using the Ukrainian route, and is only slightly above shipping through the Yamal-Europe pipeline. The difference may be that Gazprom may decide not to ship gas through the Ukrainian route, but needs to ship gas through the Nord Stream to service the debt incurred for its construction.

[30] Katya Golubkova, Vera Eckert, and Timothy Gardner, "Gazprom, European Partners Sign Nord Stream-2 Deal," Reuters, September 4, 2015.

[31] Jack Farchy, "Gazprom bows to Brussels by holding first European gas auction," Financial Times, September 7, 2015.

[32] "TurkStream," Gazprom, accessed September 27, 2015, http://www.gazpromexport.ru/en/projects/6/.

[33] "Communication from the Commission to the European Parliament and the Council on the Short Term Resilience of the European Gas System: Preparedness for a possible disruption of supplies from the East during the fall and winter of 2014/2015," 2014.

[34] Simon Pirani, James Henderson, Anouk Honoré, Howard Rogers, and Katja Yafimava, "What the Ukraine Crisis Means for Gas Markets," Oxford Energy Comment, March 2014.

[35] James Henderson and Tatiana Mitrova, "The Political and Commercial Dynamics of Russia's Gas Export Strategy," Oxford Institute of Energy Studies working paper NG102, September 2015. The authors conclude, "It seems very likely that the mutual dependency between Europe and Russia over gas imports will remain for the foreseeable future. It would appear inevitable that Europe will continue to buy significant amounts of Russian gas given both the long-term contracts in place and the lack of viable pipeline alternatives. Equally, Russia will need to continue to maintain Europe as a major export customer in order to sustain Gazprom and Kremlin revenues at a time when low oil prices and a declining economy are impacting the overall tax take. Gazprom has shown that it is willing to respond to competitive pressure by adjusting its price level and its contractual terms, albeit that some of these changes have been forced upon it by arbitration cases. Nevertheless, its average price in the first half of 2015 was only just above the UK spot price. However, its strategy has to date been very reactive rather than proactive (...). In order to fend off future competition it may need to consider a more fundamental change to a market-based approach that can allow it to respond to challenges more quickly. Its leadership has indicated that the company is taking some steps in this direction, in particular in north-west Europe where hub-based pricing is most prevalent, but no specific plans have yet been spelled out."

[36] "Press Release: Antitrust: Commission sends Statement of Objections to Gazprom for Alleged Abuse of Dominance on Central and Eastern European Gas Supply Markets," European Commission, April 22, 2015; see also Alex Barker and Jack Farchy, "Brussels Risks Russian Ire with Gazprom Antitrust Case," Financial Times, April 21, 2015.