

TALKING PAST EACH OTHER: TRANSATLANTIC PERSPECTIVES ON EUROPEAN GAS SECURITY

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When press reports started to emerge at the end of February indicating that the Arbitration Institute of the Stockholm Chamber of Commerce had finally reached a conclusion in its years-long consideration of competing claims between Ukraine's state oil and gas company, NAK Naftogaz, and Russia's Gazprom, for a brief moment it seemed that an inflection point had arrived. Perhaps the bitter, long-running test of wills would end relatively calmly, with neither Naftogaz nor Gazprom securing anything approximating the tens of billions of dollars that they sought as damages. Moreover, with Europeans and Russians growing weary of sanctions and after progress on several aspects of European gas supply security—market rules, energy infrastructure, and company governance—perhaps political factors could recede into the background.

In just a few short weeks, that appearance was shown to be a mirage. Policymakers' attention is understandably dominated by troubling political preoccupations—persisting reports of Russian meddling in foreign elections, suspicious chemical attacks in Britain, escalating American sanctions, trans-Atlantic tensions, isolationist impulses in the United States and in some European states, and recurrent concerns about corruption in Ukraine. Meanwhile, even in a time when plenty of gas is available on the global market, European gas supply arrangements are growing less certain, not more, and this uncertainty risks adding still further stress to overloaded circuits. The current agreement for the transit of Russian gas across Ukraine expires at the end of 2019, and Russia has indicated it aims to cancel the contract even sooner. Domestic EU production is falling while demand grows. Political factors may thus play an even greater destabilizing role in the next 18 months. In this piece, we review the state of play in the wake of the Stockholm arbitration decision and the prospect that sellers, buyers, transit countries, and interested outside parties can find a way to calm the waters and bring economics back to center stage, without pretending for a moment that today's political challenges don't matter.

Comments from Afar

For years, few energy topics have spurred greater sensitivity than the views of outsiders about Europe's energy security. European decision makers, of course, feel more than capable of assessing

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and defending their countries' interests. Regardless, American policymakers and analysts have long commented on these issues from afar. In the proper proportion, this is only natural: the United States and most European nations are treaty allies and close trading partners. We have a direct stake in each other's prosperity and security. We know that this means we will sometimes hear from each other the kinds of challenging viewpoints that close friends express—whether that means European views on climate policy, the future of the Iran nuclear deal, or American views about European energy security.

American official commentators have at times felt that their distance from Europe enabled a clear-eyed estimation of opportunities and risks exactly because their concerns did not involve the fate of US-based companies. Europeans, on the other hand, have at times felt that American policymakers' concerns about the effects of Russian gas exports to European markets were overblown. In the early 1980s, US policymakers deemed natural gas trade to be a critical lifeline for the Soviet economy and thus a source of funds for the Soviet military.¹ The Americans replied with a number of instruments—including economic sanctions² and, according to published reports, even the extraordinary step of covert action against one of the main Soviet gas transmission pipelines flowing to Europe.³ By comparison, today's private and public American policy advocacy seems tame, though that does not mean that it is more welcome in the view of some European decision makers. Russian officials have always dismissed American voices as utterly irrelevant to Moscow's gas-related interactions with Europe.

Russian Gas for Europe: On Whose Terms?

The history of gas supply from Russia (and earlier, the Soviet Union) to the European Union has been one of predominant commercial predictability, punctuated by episodes of politically motivated disruptions. Numerous European gas companies have engaged deeply with Gazprom since the late 1960s.⁴ The Europeans have applauded the Russian company for its technical capabilities and its reliability as a producer and shipper. The European companies' business models depend on uninterrupted supplies of inexpensive gas—whether for use by power generators, space heating and cooking, or industrial consumers. It is therefore understandable in commercial terms that they would seek to build relations for the long term in part by cross-investment with Gazprom and by supporting Gazprom's commercial interests in Europe in return for access to upstream production. A comparatively recent development is the emergence of competition for Gazprom within Russia. No longer does Gazprom enjoy a complete export monopoly, as other producers can export LNG since 2013, which Novatek has begun to do from its Yamal LNG terminal.

But the history of Gazprom's European business has not all been felicitous. For many years, it also involved a persistent disregard for the evolving rules of the EU marketplace—indeed, a disregard for rules other than those determined by the Kremlin. In 2011, the European Commission's Directorate General for Competition (DG Comp) conducted searches of ten Gazprom-affiliated offices across Central and Eastern Europe. In 2015, after a long period of investigation, DG Comp formally announced charges against Gazprom for anticompetitive business practices. Gazprom, it said, was inappropriately hindering competition by barring the re-export of gas purchased by its customers, by engaging in predatory pricing, and by obstructing the creation of new gas transmission infrastructure that would allow a smoother-



functioning European gas market.⁵ Gazprom rejected the European Commission's claims, stating that as a "strategic government-controlled business entity," it was exempt from EU competition rules.⁶ The sands beneath Gazprom's feet were shifting, however. New sources of natural gas were entering the market from Australia, the United States, and elsewhere. European demand dropped through the beginning of the current decade, and the European Commission held the formal possibility of fining Gazprom in an amount equal to as much as 10 percent of its global turnover.

Series of Disruptions

Europe had also witnessed over the years several instances in which Gazprom's insistence on following only Russian rules contributed significantly to bad outcomes for its customers. In January 2006, with winter temperatures plummeting across the continent and after months of confrontation with Naftogaz over the renewal of gas supply and transit terms, Gazprom reduced shipments across Ukraine by an amount that the company said was equal to Ukraine's consumption. Farther to the west, in central Europe, off-takers saw their delivered volumes drop until Gazprom relented and restored full throughput. In January 2009, another standoff between Gazprom and the Russian state on one side and Naftogaz and the Ukrainian state on the other culminated in another gas shutoff. This time, the interruption of supply persisted for 19 days before the sides reached a new agreement. In the meantime, citizens of Ukraine, Slovakia, Romania, Bulgaria, and the Balkan states suffered in underheated apartments at the peak of winter.⁷

In early April 2014, with conflict in eastern Ukraine spiraling upward in the wake of the Maidan uprising in Kyiv, and with Russian forces and mercenaries invading Crimea and the regions (oblasts) of Donetsk and Luhansk, again stable gas supply to and through Ukraine was placed in doubt. Russian President Putin sent a letter to 18 European heads of state or government, nominally warning them of the risks that Ukraine might siphon off gas intended for European purchasers. But the letter, dripping with acrimony, was understood by many as a threat. It claimed that Russia had been subsidizing Ukraine's underperforming economy, and it accused European leaders of profiting off Ukraine to Russia's detriment. "To a large extent," President Putin wrote, "the crisis in Ukraine's economy has been precipitated by the unbalanced trade with the EU member states, and this in turn has had a sharply negative impact on Ukraine's fulfillment of its contractual obligations to pay for deliveries of natural gas supplied by Russia."⁸

The implied threat did not translate into a new disruption—even despite the very sharp tenor of EU-Russian relations after the shooting down of the Malaysian Airways flight MH17 in the summer of 2014. But the threat had already affected the thinking of political leaders in Europe and North America regardless. President Obama called for a restoration of the G-7 consultative format, and his counterparts readily agreed, signaling that the participating countries no longer would engage Russia, which had been slated to host the G-8 summit in Sochi that year. In May, energy ministers of the G-7 countries plus the European Commission gathered in Rome and issued a clear call, echoed by their leaders roughly one month later, for an intensified focus on energy security. When the G-7 leaders met in Brussels in June 2014, they declared, "The use of energy supplies as a means of political coercion or as a threat to security is unacceptable. The crisis in Ukraine makes plain that energy security must be at the



center of our collective agenda and requires a step change to our approach to diversifying energy supplies and modernizing our energy infrastructure.”⁹

Creating an Energy Union

In the European Union, the need for improved gas supply security took on particular importance, as a number of EU member states had already felt the bite of Russian gas cutoffs before. EU gas demand had been declining since 2011 (only to see significant growth again since 2016, but not yet to 2011 levels). But the greater drama is on the European Union’s gas production slide: offshore North Sea production is in long-term decline (especially in the UK offshore), there is very moderate support for new exploration (e.g., of shale), and the Dutch government has announced that production from the giant Groningen field, which has been plagued by earthquakes, will be sharply curtailed and terminated by 2030.

With the arrival of the new Commission under President Jean-Claude Juncker, the European Union announced that it would pursue the completion of a more unified energy market—an energy union. Numerous ideas were mooted as possible contributions to this goal. Some of these ideas seemed impractical or even undesirable—at least in the view of the authors. One especially puzzling idea—to create a collective buyers’ club to negotiate with Russian interlocutors—would undercut the ability of commercial companies to negotiate in their own interest. Other ideas, such as the Commission’s ongoing attempts to gain a greater negotiation mandate in connection with the proposed Nord Stream 2 pipeline from Russia to Germany under the Baltic Sea, spurred controversy because some EU member states have perceived them as extending to an unwelcome degree the Commission’s proper legal authority, with unknown implications for the future.

Some ideas made much better sense, such as completing the internal market for natural gas—namely, strengthening pipeline interconnections and enabling reverse flows to allow the dispatch of fuel to where demand is calling. Strengthening the regulatory framework for the EU gas and electricity market, spearheaded by the Agency for the Cooperation of Energy Regulators (ACER), based in Ljubljana, Slovenia, has been a good investment. At times institutions like ACER can help orchestrate decisions that may serve an obvious regional goal but that might encounter local complexities such as the tug-of-war between Poland and Lithuania about the division of costs of the interconnector between the two countries.¹⁰ Harmonization of national regulatory frameworks to facilitate competition and trade are also a critical part of its mission.

Also valuable was the development of better diagnostics on the European gas market. Following the outbreak of hostilities in Ukraine and the Putin letter, EU member states conducted—through the heart of the usually sacrosanct summer holiday season—stress tests assessing national-level vulnerability to gas supply interruptions. These tests were mostly a helpful reminder that European Commission-led efforts to further integrate European gas markets had been an overall successful policy, but they also made plain that a handful of EU member states and contracting parties in the Energy Community (Estonia, Finland, Bosnia-Herzegovina, the Former Yugoslav Republic of Macedonia, and Serbia) would be severely exposed if there were a protracted disruption in natural gas supply from Russia.¹¹ Other



member states that acceded to the European Union in the most recent expansions also had notable vulnerability.

From this dynamic there emerges an important challenge in today's European natural gas security equation: The newer EU member states, many of which are clustered on the easternmost edge of the European Union and are not among the Union's well-to-do countries, tend to have fewer gas supply options. This fact creates an additional degree of complexity because the resulting intra-EU tensions are playing out at a time when the European Union itself is facing a number of other challenges unrelated to energy—debates about the future form of the European Union, uncertainties surrounding Brexit, the appearance that some member states are departing from democratic norms, and migration pressures on the European Union's doorstep, to name but a few.

Another Persisting Challenge: Ukraine's Gas Sector Governance

Another aspect of the European gas security situation that merits consideration is the need for Ukraine to markedly improve governance in its natural gas sector. For the entire period since the breakup of the Soviet Union, natural gas in Ukraine has been synonymous with non-transparency, weak governance, and allegations of corruption. Gas supply deals routinely involved unknown, untested, but politically connected companies. Endless legal disputes, charges, and counter-charges became a staple commodity. In 2011, Ukraine joined the Energy Community. This step obligated Ukraine to adopt and put in practice the market rules under the European Union's Third Energy Package, including structural reform of the gas market; separation of upstream, marketing, and transportation functions; and creation of an independent regulator. These obligations were reinforced through the lending programs of the European Bank for Reconstruction and Development (EBRD) and the World Bank.¹²

Despite all the support for better governance, change has come slowly to Ukraine's gas sector. Reporting lines for Naftogaz were an area of particular dispute (and remain so), presumably because some figures in or close to the Ukrainian decision-making structures believed that benefits could accrue to the party empowered to oversee the state company. In 2016, Ukraine finally submitted an unbundling plan to the secretariat of the Energy Community. Naftogaz also developed a corporate governance action plan. But the controversies and disputes did not end. In a pointed development in September 2017, all of the independent members of Naftogaz's supervisory board and the senior government official who served as the board's chair resigned. They attributed their decision to "political meddling in Naftogaz's work."¹³ By early in 2018, new external board members had been seated, and the Naftogaz management seemed intent on progressively professionalizing the company's operations. Even in the face of the massive tensions with Russia since the invasion in 2014 and despite chronic underinvestment, Ukraine has shipped high volumes of transit gas to European buyers,¹⁴ but it is too early to say whether the governance of Ukraine's natural gas sector has definitively changed.

The Stockholm Arbitration Case

The chronic disputes between Naftogaz and Gazprom, which led to the supply disruptions of 2006 and 2009, also precipitated the long-running arbitration case within the Arbitration Institute of the Stockholm Chamber of Commerce. In 2009, Naftogaz and Gazprom signed a



10-year framework agreement orchestrated by the European Commission, which formalized contracts on gas supply to and transit through Ukraine. This agreement seemed to mark a departure from the annual renegotiations that the two sides had engaged in until then, but in reality, quarrels over the terms and deliveries continued on a regular basis. The sides stuck to the agreement only as long as it suited them, and then they engaged in mutual recriminations, the Russian side asserting that the Ukrainians had failed to adhere to take-or-pay supply provisions and the Ukrainians asserting that the Russians had abrogated the ship-or-pay transit terms and engaged in predatory pricing. The fact that the European Commission had encouraged the original 2009 agreement and that EU buyers were directly affected by the disputes effectively gave the Commission a legitimate basis to bring the Russian and Ukrainian sides back to the table when new quarrels erupted. And erupt they did. Both Gazprom and Naftogaz filed cases with the Stockholm arbitration court, seeking payments in arrears and resolution of contract terms.

In late 2017 and early 2018, the Stockholm arbitration court issued two rulings, the first on the conditions of natural gas delivery to Ukraine and the second on the terms of the transit contract. Rulings from the Stockholm arbitration court are never made public, as contract terms are considered a private matter.¹⁵ Press reports indicate that Gazprom was found to owe Naftogaz a net payment of \$2.56 billion. For its part, Naftogaz had to pay Gazprom \$2 billion in debt, but Gazprom was found to owe Naftogaz \$4.56 billion for failure to abide by its ship-or-pay obligation. Going forward, the take-or-pay volumes that Naftogaz is to purchase from Gazprom on an annual basis are drastically reduced, and Naftogaz will be allowed to resell those volumes to other buyers (consistent with EU market terms, which disallow destination clauses). Russian gas sold to Ukraine will be priced in relation to the German hub price instead of using oil indexation. The court's decision seems to create uncertainties that could have major financial implications for Gazprom—for instance future required transit volumes. In turn, this fact may have contributed to the company's harsh initial response.

Many Comments, Little Calm

Both the Ukrainians and the Russians claimed that the Stockholm decisions vindicated their position, but Naftogaz appeared to take particular satisfaction that the net damages favored their side. Gazprom in turn reacted with an irritated and emotional response issued only hours after the Stockholm court announced its second ruling. This Russian outburst surprised most market observers, including some industry experts working directly with Gazprom. It also appeared to bury any hopes that the Stockholm decisions could mark a moment for de-escalation of the chronic tensions. The recent growth in Gazprom's sales to the European market (2017 marking the third consecutive record year) and the scale in Gazprom's financial turnover only made the company's angry response harder to comprehend from the outside.¹⁶

Matters went from bad to worse after the initial reactions. Gazprom cancelled the planned restart of natural gas deliveries to Ukraine. It returned the prepayment that Naftogaz had issued and indicated that it was going to start the process of terminating both the existing supply and transit contracts—even in advance of the scheduled end of the gas transit agreement at the end of 2019. In addition, it indicated that it would appeal both decisions of the Stockholm court.¹⁷ The irony is striking here: Gazprom refuses to respect the court's decision yet turns to the same court to terminate its existing contract.



On March 2, the US State Department's spokesperson Heather Nauert issued a statement on Twitter, saying that natural gas supply and transit must never be a political weapon. Gazprom should send natural gas through Ukraine's transit pipeline per the Stockholm court's decision, Nauert said. "Russia should prove it is a reliable gas supplier."¹⁸ Nauert's Twitter message underscored the fact that official US positions on Russian engagement in European energy security have shown a certain steady skepticism since the 1980s. This skepticism is also reflected in the "Countering America's Adversaries Through Sanctions Act (CAATSA)," which the US Congress passed with an overwhelming majority, and which President Trump signed into law on August 2, 2017. This legislation introduced greater rigidity into US policy toward Russia, as it cemented in place sanctions that cannot be removed without Congressional action. CAATSA contains language that could be used to place sanctions on the Nord Stream 2 project specifically, though the authors see no sign that this Administration is willing to take such a step at this time.¹⁹ Regardless, the new sanctions law adds to the significant regulatory uncertainty that clouds Europe's gas relationship with Russia.

In mid-March, the European Commission's Vice President Sefcovic cautioned both Gazprom and Naftogaz to adhere to the ruling of the Stockholm court, emphasizing the importance of respecting the rule of law.²⁰ The European Commission also called for consultations between Gazprom and Naftogaz when the latter triggered an early warning mechanism after the gas cutoff. Most European officials applied a hands-off approach, with very limited high-level engagement with Moscow.

Berlin commented on the Stockholm case in a manner similar to Vice President Sefcovic's statement, saying that Germany hoped that all sides would respect the Stockholm court's decision, as this would be in their long-term interest. The German spokesperson also indicated that Germany continues to consider the Nord Stream 2 pipeline project to be "a purely commercial" undertaking.²¹ Only a few weeks later, as German Chancellor Angela Merkel prepared for a working visit to Washington, the Chancellor struck a different tone regarding Nord Stream 2, indicating that without some compromise that assured Ukraine a role in gas transit after 2019, the new pipeline could not be built. Whether the Chancellor's statement reflected a change of German position is unclear; she merely expressed the view that she had expressed earlier that Europe would be better served if Nord Stream 2 did not result in an end of transit across Ukraine.²² In the view of the authors, to debate the question of whether the German position changed is to revert to what has been a pointless distraction—the question of whether Nord Stream 2 is a "commercial" project or a "political" one. To us, it seems self-evident that Nord Stream 2 has both a commercial rationale for participating companies, as well as political implications that would only make sense for national leaders to consider with care.

What's Ahead? Renewed Disruptions or a Calmer Discussion?

So where do matters stand in the wake of all these disputes, tensions, charges, and counter-charges? Given the serious political issues in our time, is there scope for the vitally important topic of European natural gas supply security to move to a form in which economic factors play a more central role? For better or for worse, the predominant risk we see is that in the absence of concerted effort on all sides, the elements of progress in European gas supply could get drowned out by the political challenges on all sides.



It is worthwhile to consider the positive developments that have occurred on a variety of fronts. Most significantly, the European Commission and EU member states have achieved real progress in fostering the energy union that President Juncker has emphasized as a top priority since the very start of his tenure. Interconnecting pipelines, more effective and better streamlined regulatory structures, badly needed vulnerability assessments, and new supply security rules have all contributed.

Also positive has been the apparent progress between Russia and the commission on the terms under which Gazprom could sell gas into the EU market. In mid-March 2018, shortly after the issuing of the Stockholm tribunal decision, the European Commission's competition authorities (DG-Comp) released for comment a proposed settlement in the antitrust case that has been pending since 2011. The Commissioner for competition policy, Margrethe Vestager, said, "We believe that Gazprom's commitments will enable the free flow of gas in Central and Eastern Europe at competitive prices. They address our competition concerns and provide a forward-looking solution in line with EU rules. In fact, they help to better integrate gas markets in the region."²³

We see two significant aspects in this development. First, we view the proposed settlement as an indication that Gazprom now accepts the validity of EU market rules to an extent no one could have anticipated even three years ago; evidently, Gazprom is ready to end its destination clauses, determine prices based on European hub pricing rather than oil indexation, and end tied infrastructure deals that were meant to undercut unbundling rules. The second interesting consideration is the timing of the proposed settlement; it seems to signal the European Commission's recognition that Russian gas will, by virtue of its plentiful supply and low cost, have a considerable long-term role in EU markets as long as Gazprom can accept legal terms under which all suppliers must operate.

A third positive factor has been the progress achieved by Ukraine. As noted above, it is still too early to assert that Ukraine has moved past its chronic bad governance. Nonetheless, it does appear to be making progress on professionalizing its gas sector and implementing its obligations under the Energy Community. Let us hope that Ukrainian political leaders are realizing at last that the quickest way to end their country's role in the supply chain for gas to Europe is to continue to fail to operate on a transparent basis. Ukraine alone cannot force the Kremlin to adopt a more neighborly approach in the Russian-Ukrainian gas trade. But a reforming Ukraine can at least make plain to European partners that it is committed to breaking with the legacy of gas-related corruption and thus to being a good, stable business partner.

A last positive factor has been the evolution of the global LNG industry, with the United States now a significant and growing supplier. With American LNG—as well as supplies from other sources—available in the North Atlantic for competitive prices, European gas buyers have even more choices than they had in the past. US gas will struggle to compete head to head with Russian gas on price, but US LNG can serve a critical role for buyers that prefer a diverse portfolio and as an effective ceiling on European natural gas prices without any linkage to oil prices. EU gas buyers will have choices other than the traditional domestic, Russian, Norwegian, and North African sources.



The Importance of Moving Beyond Standard Arguments

In our judgment, however, the good news mentioned above will not necessarily prove sufficient to move European natural gas security onto a more stable, economically oriented footing. Instead, we see a risk that today's political complexities could delay or even obstruct the critical business of reaching new, stable transit arrangements. What is needed is an approach that is cognizant of the political complications of this time but that seeks to build on the positive developments.

Yes, relations between the North Atlantic community and Russia have suffered significantly since 2014, and merely scanning the headlines should make clear why that is so. No party has an interest in ignoring ongoing political tensions that must be worked through with complete candor and directness. Russia has an obvious interest in selling gas to Europe, and as long as Gazprom does not have undue market power (which then would create strong impulses to abuse that power), those Russian gas sales can bring benefit to European buyers. The European Union and its member states, which have made significant progress in creating an internal market for natural gas, nonetheless have additional vital internal work to do. There are political impacts of proposed new energy infrastructure, as the German Chancellor recently acknowledged. And newer members of the European Union in central and eastern Europe should neither have their worries about Russian pressure tactics ignored, nor should they ignore the need to be part of a functioning European gas market if indeed the European Union is to complete its energy union. Implied in this is a profoundly challenging task: the European Union needs to establish a shared view among member states of how far-reaching the energy union should be. Does energy remain a topic of shared competence, in EU parlance, where national decision-making mixes with EU-wide decision-making, but with substantial emphasis on the former? How do member states and European institutions move beyond pleasant-sounding affirmations of the need for "solidarity," which in reality seem likely to be undercut by local interests that wish to preserve the status quo?

Where the United States is concerned, the times call for more strategic communication. For allies to express concerns about each other's policies is natural, even if it can be trying or even unwelcome at times. But overblown rhetoric or the careless intermixing of energy security concerns and commercial advocacy for US exports is extremely unwise, as it calls into question whether one is trying to speak candidly to friends or sell US goods. This powerfully undermines the credibility of otherwise well-intended policy dialogue.

Last but not least, what is needed is direct, quiet, nuanced dialogue—fewer tweets, fewer threats, fewer rhetorical flourishes. And this last is needed in time to reduce brinksmanship and avoid the risks of new natural gas supply disruptions at the end of 2019 and beyond.

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The views represented in this commentary represent those of the authors.

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Notes

1. Central Intelligence Agency, "The Soviet Gas Pipeline in Perspective—a Special National Intelligence Estimate," September 21, 1982, accessed April 23, 2018, <https://www.cia.gov/library/readingroom/docs/19820921.pdf>.
2. Bernard Gwertzman, "Reagan Lifts the Sanctions on Sales for Soviet Pipeline; Reports Accord with Allies," New York Times, November 14, 1982, accessed April 23, 2018, <https://timesmachine.nytimes.com/timesmachine/1982/11/14/031128>.
3. David E. Hoffman, "Reagan Approved Plan to Sabotage Soviets," Washington Post, February 27, 2004, accessed April 23, 2018, https://www.washingtonpost.com/archive/politics/2004/02/27/reagan-approved-plan-to-sabotage-soviets/a9184eff-47fd-402e-beb2-63970851e130/?utm_term=.774c6d173feb.
4. For a detailed history of Soviet-European natural gas trade, see Red Gas, by Per Hogselius, accessed May 9, 2018, <https://www.palgrave.com/us/book/9781137286147>.
5. European Commission—Press Release, "Antitrust: Commission Invites Comments on Gazprom Commitments Concerning Central and Eastern European Gas Markets," March 13, 2017, accessed April 23, 2018, http://europa.eu/rapid/press-release_IP-17-555_en.htm.
6. James Kanter, "In Accusing Russian Energy Giant Gazprom, E.U. Begins a Test of Wills," New York Times, April 22, 2015, accessed April 23, 2018, <https://www.nytimes.com/2015/04/23/business/international/gazprom-european-antitrust-european-union.html>.
7. Jonathan Elkind, "Energy Security: Call for a Broader Agenda," in Energy Security: Economics, Politics, Strategies, and Implications, eds. Carlos Pascual and Jonathan Elkind, Brookings Institution Press, 2010, available at <http://www.jstor.org/stable/10.7864/j.ctt6wpg69>.
8. A. Anishchuk, "Putin's Letter to European Leaders on Ukraine's Gas Debt," Reuters, April 10, 2014, accessed April 23, 2018, <https://www.reuters.com/article/us-ukraine-crisis-russia-gas-letter/putins-letter-to-european-leaders-on-ukraines-gas-debt-idUSBREA391DB20140410>.
9. G-7 Leaders, "The Brussels G-7 Summit Declaration," accessed April 24, 2018, http://europa.eu/rapid/press-release_MEMO-14-402_en.htm.



10. This issue was eventually settled by ACER in 2014, a historic event in that it was the first ruling of ACER of this kind. See: Agency for the Cooperation of Energy Regulators, “ACER adopts a decision on the allocation of costs for the Gas Interconnection project between Poland and Lithuania,” August 11, 2014, accessed May 15, 2018, <https://acer.europa.eu/Media/News/Pages/ACER-adopts-a-decision-on-the-allocation-of-costs-for-the-Gas-Interconnection-project-between-Poland-and-Lithuania.aspx>
11. European Commission, “Gas Stress Test: Cooperation Is Key to Cope with Supply Disruption,” press release, October 16, 2014, accessed May 2, 2018, https://ec.europa.eu/energy/sites/ener/files/documents/IP-14-1162_EN.pdf.
12. A. Prentice, “Renewal of EBRD Loan to Ukraine’s Naftogaz Will Depend on Reform Progress: EBRD,” Reuters, September 22, 2017, accessed May 3, 2017, <https://www.reuters.com/article/us-ukraine-naftogaz-ebrd/renewal-of-ebrd-loan-to-ukraines-naftogaz-will-depend-on-reform-progress-ebrd-idUSKCN1BX172>.
13. Anton Antonenko, Roman Nitsovych, Olena Pavlenko, and Kristian Takac, “Reforming Ukraine’s Energy Sector: Critical Unfinished Business,” Carnegie Endowment for International Peace, accessed May 2, 2018, <https://carnegieeurope.eu/2018/02/06/reforming-ukraine-s-energy-sector-critical-unfinished-business-pub-75449>.
14. Marc-Antoine Eyl-Mazzega points out that roughly 50 percent of Russia’s gas sales to Europe transited Ukraine in 2017, permitting Gazprom to break supply records and secure bond offerings for the Power of Siberia and Nord Stream 2 projects. See “The Gazprom-Naftogaz Stockholm Arbitration Awards: Time for Settlements and Responsible Behaviour,” Edito Energie, March 2018, accessed May 3, 2018, https://www.ifri.org/sites/default/files/atoms/files/eyl-mazzega_gazprom_naftogaz_stockholm_arbitration_awards_2018.pdf.
15. Because the Stockholm arbitration decisions are never made public, we base our discussion on published reports, which appear to have been confirmed by statements from the two companies. For example, see the detailed discussions of the arbitration rulings, Eyl-Mazzega, “The Gazprom-Naftogaz Stockholm Arbitration Awards,” 2018, and Simon Pirani, “After the Gazprom-Naftogaz Arbitration: Commerce Still Entangled with Politics,” <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/03/After-the-Gazprom-Naftogaz-arbitration-commerce-still-entangled-with-politics-Insight-31.pdf>, accessed on May 3, 2018.
16. See Eyl-Mazzega, “The Gazprom-Naftogaz Stockholm Arbitration Awards,” 2018.
17. AFP, “Gazprom Appeals Swedish Arbitration Court’s Ruling,” March 22, 2018, accessed May 10, 2018, <https://www.thelocal.se/20180322/gazprom-appeals-swedish-arbitration-courts-ruling-naftogaz-gas>.
18. Twitter feed of Heather Nauert, Spokesperson of the US Department of State, March 2, 2018, 3:09 pm, Accessed May 1, 2018, <https://twitter.com/statedeptspox/status/969711312392609795?lang=en>.



19. Upon signing the bill, the President called it “seriously flawed.” See “Statement by President Donald J. Trump on Signing the “Countering America’s Adversaries Through Sanctions Act,” August 2, 2017, accessed May 12, 2018, <https://www.whitehouse.gov/briefings-statements/statement-president-donald-j-trump-signing-countering-americas-adversaries-sanctions-act/>.
20. Interfax-Ukraine, “EC Expects Gazprom to Comply with Stockholm Arbitration Ruling—Sefcovic,” accessed May 2, 2018, <https://en.interfax.com.ua/news/economic/493834.html>.
21. T. Escritt, “Germany Calls on Gazprom, Ukraine’s Naftogaz to Settle Dispute,” Reuters, March 2, 2018, accessed May 15, 2018, <https://www.reuters.com/article/russia-ukraine-germany/germany-calls-on-gazprom-ukraines-naftogaz-to-settle-dispute-idUSS8N1QC01L>.
22. Simon Pirani and Katja Yafimava, “Russian Gas Transit across Ukraine Post-2019: Pipeline Scenarios, Gas Flow Consequences, and Regulatory Constraints,” Oxford Institute of Energy Studies, February 2016, accessed May 10, 2018, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/02/Russian-Gas-Transit-Across-Ukraine-Post-2019-NG-105.pdf>.
23. European Commission, “Antitrust: Commission Invites Comments on Gazprom Commitments concerning Central and Eastern European Gas Markets,” press release, March 13, 2017, accessed May 2, 2018, http://europa.eu/rapid/press-release_IP-17-555_en.htm.



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