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Russia's Use of the "Energy Weapon" in Europe

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"Regardless of how the standoff over Ukraine develops, one lesson is clear: excessive dependence on Russian energy makes Europe weak."

—Donald Tusk, former prime minister of Poland (April 2014)

In June 2017, the US Senate voted 98–2 to pass a bill designed to strengthen existing US sanctions against Russia, including a provision that would allow sanctions against those who provide capital, services, or other support to projects that build, expand, or even maintain Russian energy export pipelines.[1] The fact that US policymakers are now openly debating extraterritorial measures to punish those who facilitate Russian energy exports suggests the two countries' geo-economic frictions could escalate, with commensurate impacts for E&Ps, service companies, and capital providers.

Transatlantic disputes over projects like the proposed Nord Stream-2 (NS-2) pipeline—which would increase Russian gas supplies to Europe—will likely continue for years to come, as US-Russia geopolitical competition intensifies and the political toxicity of Russia-related matters rises in Washington. Accordingly, this brief aims to inform and contextualize the discussion by (1) quantifying the potential exposure of key European countries to Russian gas price and supply manipulation, (2) showing how Moscow has used energy as an instrument of coercive diplomacy since the early 1990s, and (3) briefly assessing the impacts and future policy implications of Russian entities' past use of the "energy weapon" in and near Europe.

THE DEGREE OF DEPENDENCE ON RUSSIAN GAS, BY COUNTRY

Europe-Russia energy security discussions often focus on natural gas because manipulating crude oil and refined product supplies is generally a less effective tactic. Crude and related products are each traded in highly fungible global markets, so substitute supplies can be procured and transported relatively easily in the event that Russian exports are interrupted. By comparison, lower fungibility has historically constrained work-around options in the event of natural gas supply disruptions. In particular, Central and Eastern European consumers' lower connectivity to LNG and other potential replacement gas sources has perpetuated dependency on Russian supplies and made pipelines a natural strategic fulcrum for the Kremlin.

This analysis focuses on key members of the EU and/or NATO that could be subject to gas supply manipulations as part of a Russian attempt to drive a wedge between Washington and its core European partners. Therefore, not all countries in NATO, or what is often politically defined as "Europe," are included.

Russian gas imports equaled 23% of total UK gas demand in 2016, 25% in France, 40% in Italy, 55% in Denmark, 58% in the Czech Republic, 62% in

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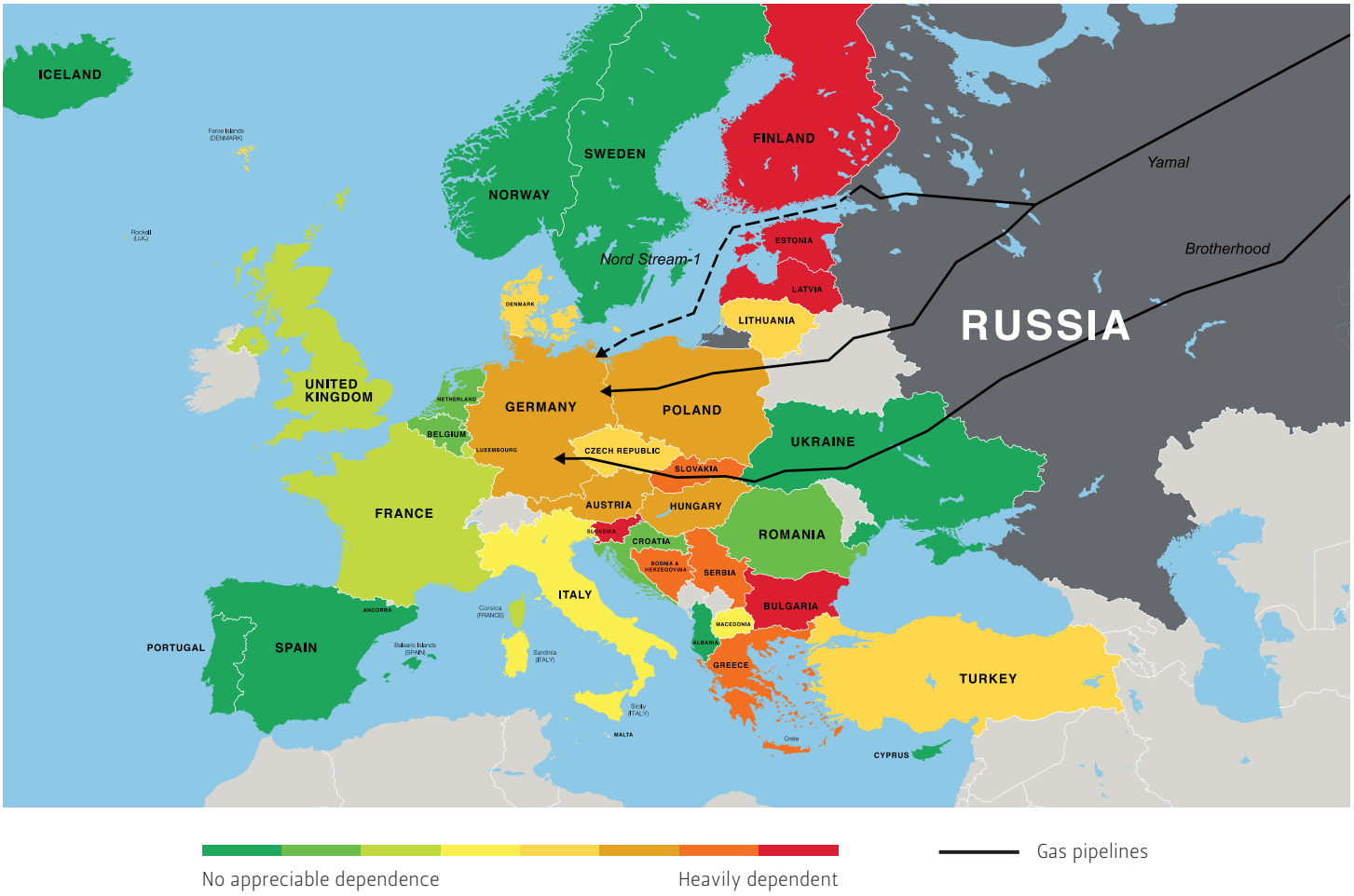
FIGURE 1 — KEY EUROPEAN COUNTRIES' DEPENDENCE ON RUSSIAN GAS



NOTE "Dependence" is determined by percentage of direct Russian imports divided by total annual gas demand. Ukraine now uses reverse flows from neighboring states , so its Russian-origin gas supplies are "indirect."
SOURCES BP Statistical Review of World Energy 2017; GADM (countries); Gazprom (pipeline routes and gas import data)

Germany and Hungary, 64% in Poland, 70% in Austria, and 84% in Slovakia, according to data from BP and Russian gas producer Gazprom. If the NS-2 project comes online, dependence on Russian gas in Germany and surrounding countries could rise significantly. The Nord Stream-1 pipeline alone supplied gas volumes equivalent to 55% of Germany's total gas consumption in 2016. If German nuclear power plants shut down on schedule and NS-2 comes online in the 2019–2020 time frame, Russia's direct gas links to Germany could by themselves supply more than 80% of German gas consumption even at a relatively low pipeline utilization rate for NS-2.[2]

INSTANCES OF RUSSIAN ENERGY COERCION IN EUROPE AND THE FORMER SOVIET ZONE

The Kremlin's use of energy coercion began even before the USSR actually dissolved in December 1991. For instance, it interrupted oil supplies to the Baltic states in 1990 in an effort to crush the region's budding independence movements, although to no avail.[3] Russian energy companies—presumably with the Kremlin's blessing—have gone on to make multiple attempts over the past 25 years to use energy supplies to gain leverage over Russia's neighbors and advance Moscow's strategic priorities. The author has identified at

least 15 discrete instances where Russian entities used price and physical volume manipulation of crude oil or natural gas supplies—often amid political tensions—to pressure consumers located in Central and Eastern Europe and the former Soviet countries (Figure 2).

The "true" number of energy supply disruptions Russian entities have caused in and around the former Soviet zone is likely significantly higher than the number reported in this study. Consider, for instance, that in 1998 and 1999 alone, Russian oil producer Lukoil interrupted supplies of crude oil to Lithuania's Mažeikiai refinery at least nine times amid a contest between American and Russian interests to acquire a stake in the facility.[4] Smaller disruptions are not always necessarily reported, or they may instead be cast as "commercial" or "technical" disputes—even though many have political overtones.

Price conflicts and debts owed by customers—frequently exacerbated by unilateral gas price increases imposed by Gazprom—often become the pretext for supply curtailment. Such moves are part of a messaging campaign in which ostensibly commercial factors are used to legitimize gas price and/or supply manipulations that, in many instances, are motivated more by geopolitics than by concerns about corporate profitability.

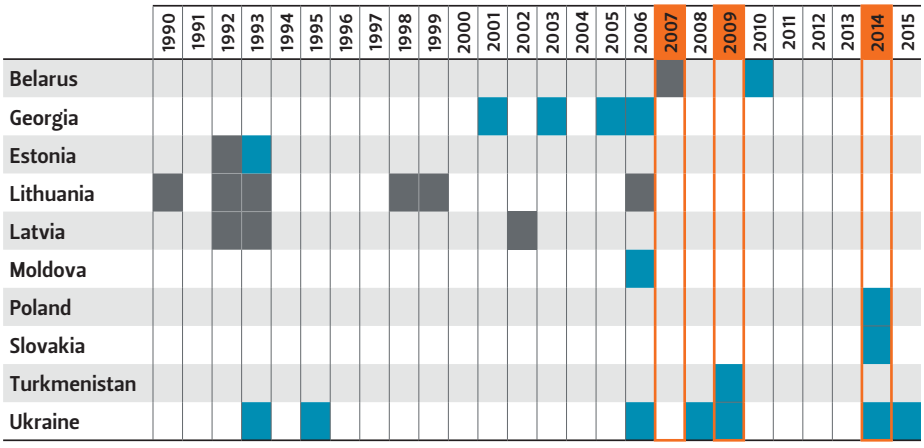
For instance, over the course of less than a week in late March and early April 2014, Gazprom raised the price of gas exports to Ukraine from $268.5 per thousand cubic meters (mcm) to $385.5 per mcm, and ultimately to $485 per mcm.[5] This rapid price increase was suspiciously timed—coming on the heels of Russia's invasion of Crimea—and transcends the bounds of commercial normalcy. Gazprom cited Ukraine's unpaid gas debts as justification for the price hike, yet Ukraine had consistently owed Gazprom substantial unpaid sums for gas deliveries since the January 2009 supply crisis was resolved and Gazprom had not previously made significant, sudden changes to gas pricing for supplies into Ukraine.[6] Similarly, the timing of "technical difficulties" in an oil pipeline supplying a specific refinery or export terminal is deeply suspicious when the troubles just happen to coincide with the rejection of a Russian suitor's acquisition attempt.[7]

Commercial gas suppliers are certainly within their rights to terminate supplies to consumers that have breached contractual terms by being in arrears.[8] Yet the time periods in which a commercial gas supplier in the European marketplace would usually allow a customer to remain in breach of the agreement are short—sometime only seven days from the time the supplier puts the consumer on notice.[9] Commercially minded gas suppliers expect a rapid and meaningful resolution of contract breaches. The transparent, punctual, and predictable processes they prefer to resolve disputes are a hallmark of standard commercial behavior.

Gazprom, in contrast, tolerates massive debts on the part of certain customers such as Naftogaz of Ukraine for years, then suddenly imposes stringent payment requirements and raises prices when geopolitical tensions increase between the Russian government and the consumer government. The Russian company's inconsistent oscillation between forbearance and sharp, severe price and/or supply changes that closely correspond

Policymakers' aversion to the potential short-term losses caused by a gas supply cutoff or a politically driven price increase could expose them to manipulation, undermine their resolve to stand up to Russian revanchism in and near Europe, and, ultimately, divide and weaken the EU and NATO.

FIGURE 2 — KNOWN OR PROBABLE POLITICALLY DRIVEN ENERGY SUPPLY OR PRICE MANIPULATIONS BY RUSSIA (1990–2015)



Instances involving crude oil are shaded gray; those involving natural gas are shaded blue.
Interruptions that caused systemic effects on oil or gas supplies in Europe occured during the years highlighted in orange.

SOURCES *BBC*; FOI; Keith Smith; *Reuters*; *The New York Times*

FIGURE 3 — DID RUSSIAN ENERGY COERCION ACHIEVE MOSCOW'S STRATEGIC GOALS?

		Estonia	Latvia	Lithuania	Georgia	Belarus	Ukraine
Preconditions	Exporter consolidates control of energy resources	✓	✓	✓	✓	✓	✓
	State control over export routes	✓	✓	✓	✓	✓	✓
	Exporter carries out price hikes and/or supply disruptions	✓	✓	✓	✓	✓	✓
Results	Target state acquiesces/concedes to exporter state demands	✗	✗	✗	✗	?	✗
	Target state diversifies energy supply sources after initial coercion attempts	✓	✓	✓	✓	✗	✓

NOTE Question mark indicates that the effectiveness of Russia's use of the "energy weapon" to achieve its policy objectives was unclear.
SOURCES Karen Smith Stegen;[10] author's analysis of Gazprom export volume data

Russia has demonstrated a rising appetite for taking strategic risks, and it would be naive to think that the Kremlin is not willing to unleash a "bolt from the blue" in the natural gas supply realm.

to geopolitical events disturbs consumers and reduces their confidence in Russia as a reliable energy supplier. If Gazprom (and ultimately, the Kremlin) truly prioritized commercial concerns over political ones, we would expect to see more frequent and consistent use of legal processes to enforce agreements and settle disputes (i.e., court and arbitration cases) and fewer questionably timed price increases and supply curtailments.

Gazprom's choices can create serious consequences for gas consumers further down the pipeline in Europe. At least three of the gas supply manipulations shown in Figure 2 caused systemic disruptions deep into Europe—particularly the January 2009 gas shutoff that Gazprom instituted due to Ukraine's gas debt, which caused pressure drops as far west as France and forced businesses and schools across southeastern Europe to shut down amid severe cold.[11]

HOW EFFECTIVE HAS RUSSIAN ENERGY COERCION BEEN IN ACHIEVING MOSCOW'S STRATEGIC AIMS?

Energy supply disruptions can, in the short term, cause firms and consumers to incur significant economic losses, which can then become social problems as well. And in the immediate aftermath of supply and price disruptions, the directly affected countries have sometimes had to make tactical concessions to Moscow—such as Ukraine paying higher prices for gas in the wake of the 2009 shutoff, or then-president of Ukraine Leonid Kuchma's decision to accept gas debt forgiveness in exchange for allowing Russia to retain most of the Black Sea naval fleet after a September 1993 gas shutoff.[12]

Yet over a longer time frame, the perception that energy supplies have been politicized can induce consumers to either move to new energy sources entirely, or at least to diversify their energy sources to reduce exposure to future volume and price risks arising from a single supplier. Energy supply and price manipulation in the former Soviet zone has generally driven the targeted countries further from Moscow's orbit. Historical examples of national responses to Russian energy coercion—such as the Lithuanian and Ukrainian experiences—suggest that after a period of initial disruption, traders and consumers generally rebuild supply channels in ways that are more resilient and diversified, and less directly reliant on Russian suppliers.

In the most extreme cases, using the "energy weapon" may have actually backfired by precipitating additional anti-

Russia sentiments in countries such as Ukraine and Georgia, which emerged from domestic political revolutions with a generally pro-Western, pro-Europe orientation. Despite multiple energy coercion actions, both Ukraine and Georgia eventually experienced armed conflict with Russian military forces and Russian-backed proxies, and the outcomes of these conflicts have generally proven muddled at best for Russian interests.

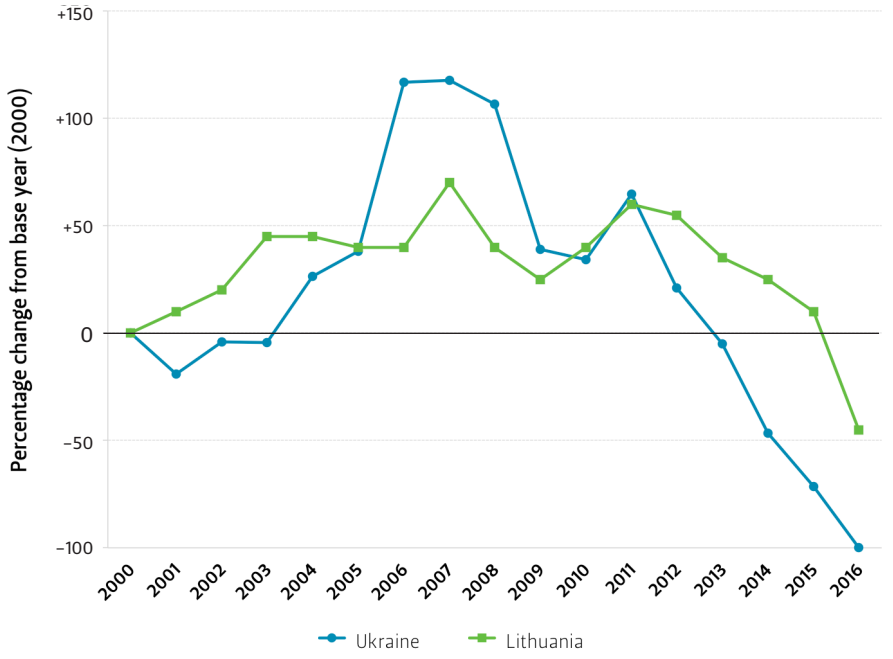
For example, Ukraine and Lithuania have moved decisively to reduce direct gas imports from Russia over the past five years (Figure 4). Ukraine has done so by increasing its imports of gas from Slovakia, Hungary, and Poland via new pipeline interconnections that allow "reverse flows" of gas from west to east at scale for the first time.[13] Baseload gas supplies in Central Europe still typically come from Russia but are also often intermingled with volumes from Norway and the Netherlands as pipeline connectivity improves. The mixing of gas molecules makes it much harder for Gazprom to single out specific consumer countries for volume—or especially price—manipulation.

In effect, Ukraine has substantively unlinked itself from direct imports of Gazprom molecules but can still procure Russian-origin gas. To boot, the price of reverse flow gas supplies is ultimately determined largely by trading on European hubs, rather than by Gazprom's monopolistic pricing. European hub prices can be volatile, but thus far this appears to be a cost Ukraine is willing to pay to distance itself from Gazprom.[14]

For its part, Lithuania's Klaipėdos Nafta has leased a floating LNG regasification and storage vessel from Norway's Höegh LNG for a 10-year term, with the option of purchasing the vessel once the lease expires.[15] The terminal can potentially regasify approximately 4 billion cubic meters (bcm) per year, which is roughly twice Lithuania's total annual gas needs; in 2016, it sent out 1.46 bcm of gas.[16] The effects on Lithuanian gas security have been significant, as the country is now much less vulnerable to a cutoff of gas supplies from Russia and also gets better prices for the volumes it still purchases from Gazprom. Indeed, once Lithuania's Litgas signed a term sheet with Norway's Statoil for the procurement of LNG, Gazprom quickly responded with a 23% discount on gas prices.[17] The discount helped bring Lithuania's gas prices from among the highest in Europe down to a more market-driven level.

Perhaps the most critical challenges of additional Russian gas supplies into Europe from the NS-2 pipeline arise in the political arena. Plentiful gas supplies today have impeded attempts to build the infrastructure necessary to ensure long-term, strategic European gas supply security. For instance, French regulators said in 2016 that "there is no economic need" for an interconnector pipeline crossing the Pyrenees that would help better integrate Spain's substantial LNG regasification capacity with the broader European market, citing "stable demand and overcapacity in recent years."[18]

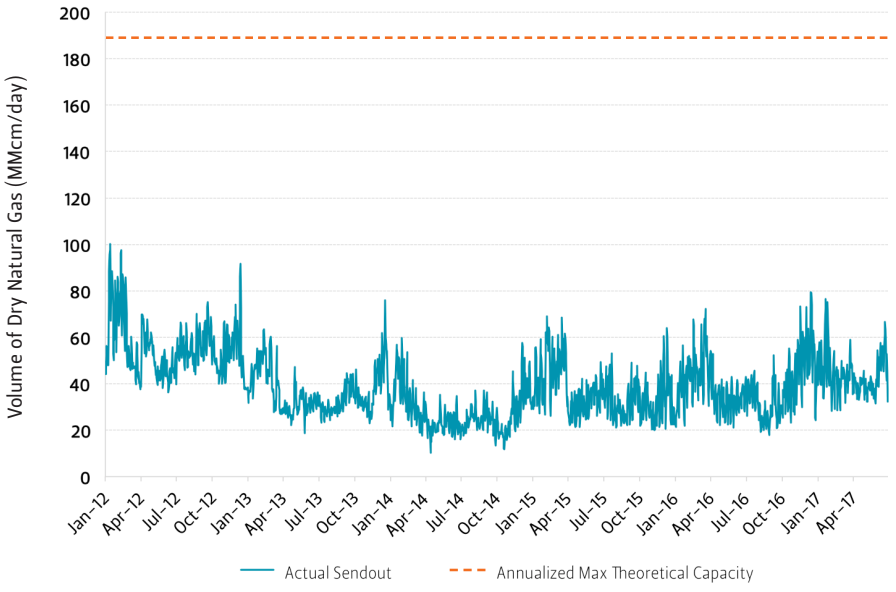
FIGURE 4 — CHANGE IN UKRAINE AND LITHUANIA'S DIRECT GAS IMPORTS FROM RUSSIA (2000–2016)



SOURCES Gazprom; Naftogaz of Ukraine

Failing to deepen Spain's connection to Europe's emerging gas hub architecture is a serious blow to supply diversification efforts. Spain's six operational LNG receiving terminals and seventh mothballed facility have a total annual sendout capacity of nearly 69 bcm of gas per year.[19] Spain only consumed 28 bcm of gas in 2016, which suggests that if pipeline infrastructure permitted, the country could boost LNG terminal utilization and serve as a gateway for non-Russian gas into Europe. Spanish LNG use peaks in the winter. Using the maximum peak in the past five years as the "set point" for determining sustainable spare sendout capability suggests that if prices rendered the trade economic and there was enough infrastructure capacity to ship the gas, nearly 33 bcm per year of additional gas could be sent from Spanish LNG terminals into the European market without threatening their ability to serve local consumers (Figure 5).

FIGURE 5 — ACTUAL DAILY GAS SENDOUT FROM SPAIN'S LNG TERMINALS VS. THEORETICAL CAPACITY (2012–PRESENT)



SOURCE Gas Infrastructure Europe

NOTE Data converted from gigawatt hours (GWh) to millions of cubic meters (MMcm) using a conversion factor of 0.1 MMcm/GWh on Gasunie unit converter.

THE WILD CARD: RUSSIAN USE OF ENERGY COERCION AGAINST A MAJOR WESTERN EUROPEAN CONSUMER

The current dataset lacks information on the most critical potential scenario for energy security planners and analysts: namely, what could happen if Russia targeted a larger country that, militarily and economically speaking, is systemically important to Europe. Ukraine and Georgia did not rise to this level, but Germany, which is poised to dramatically increase its intake of Russian gas through a direct bilateral linkage, does. In such cases, the target country's economic importance and leadership role in Europe would potentially magnify the impact of "tactical" concessions and confer strategic importance on them.

Policymakers' visceral aversion to the potential short-term losses caused by a gas supply cutoff or a politically driven price increase could—particularly if dependence on Russian gas increases—expose them to manipulation, undermine their resolve to stand up to Russian revanchism in and near Europe, and, ultimately, divide and weaken the EU and NATO.[20]

The psychological reality that the anticipated risk and pain of a potential future event are worse than if the event actually happens matters to the Russia gas dependency discussion for at least three core reasons. First, increased Western European dependence on Russian gas would raise questions about the willingness of some of those countries to aid smaller Central and Eastern European nations, such as the Baltics, in the case of Russian aggression or subversion. This dynamic is especially meaningful because the robustness of the United States' strategic commitment to NATO—which has traditionally been the alliance's bulwark—has been called into question on multiple occasions by President Donald Trump. History suggests Moscow believes it can get away with singling out smaller countries, as when Russian state-owned oil pipeline company Transneft disrupted oil supplies to Lithuania in 2006 with impunity, even

though the country had been a member both of NATO and the EU for two years by that time. European leaders' failure to draw a unified set of red lines creates the risk of emboldening Russia to continue using energy as a wedge issue.

Second, implicit threats of energy supply interruptions—or enticements such as price discounts to certain firms or countries—could be used to dissuade key countries from supporting sanctions or other measures opposed by Moscow and sow serious, long-term divisions within Europe and between the US and its partners in NATO and/or the EU. And third, Western European leaders' concerns about energy supply security would also offer the Kremlin a point of vulnerability that could be exploited under the latest Russian military operational concepts. In particular, the Russian government uses influence campaigns "to target enemy leadership and alter their orientation in such a way that they make decisions favorable to Russia and take actions that lead to a sense of despair within their leadership and establish a base for negotiation on Russian terms."[21]

For these reasons, although the Russian "energy weapon" has not been widely successful to date in the former Soviet zone, its use against Western European countries in various—perhaps more nuanced and sophisticated—forms still constitutes a strategic threat that warrants close attention from policymakers in Washington and throughout Europe.

Russian behavior can be unpredictable, and scenarios that may seem unlikely at present can materialize rapidly in the future. Just weeks before Russia invaded Crimea in 2014, virtually no US or European analysts anticipated such a move. Overnight, assumptions were shattered as the "Little Green Men"—unidentified members of Russian special forces that infiltrated Ukraine to organize protests and lead paramilitary operations—took control of key installations and infrastructure.[22] In the past decade, Russia has demonstrated a rising appetite for taking strategic risks, and it would be naive to think that the Kremlin is not willing to unleash a "bolt from the blue" in the natural gas supply realm. Planning and physically preparing for such a contingency can help deter future attempts by Russia to use gas as a coercive instrument in Western Europe, but Nord Stream–2 risks further weakening Western Europe's resolve to take such measures in a timely fashion.

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