

EUROPE AND NORD STREAM 2

Myths, Reality, and the Way Forward

Margarita Assenova
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The Issue

Right now, the Nord Stream 2 pipeline represents one of the greatest threats to European solidarity and energy security. Promoted by one of the largest gas suppliers in the world—Russia’s state-owned Gazprom—this pipeline is a direct challenge to European law, the principle of fair play in the market, existing regulatory protections for consumers, and the bedrock political cohesion that has united U.S. and European interests for decades. Should the Russian government succeed in completing Nord Stream 2, the negative consequences for Europe will be many, and the benefits few. This presents a two-fold question for EU and U.S. leaders: Does Europe need Nord Stream 2? And if not, what does Russia seek to accomplish in pushing for its completion?



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Planned route of Nord Stream 2. Map credit: BiznesAlert.



For the purposes of this report, CEPA will use Nord Stream 1 for the existing pipeline from Vyborg, Russia to Greifswald, Germany (two strings with a capacity of 27.5 bcm each), and Nord Stream 2 for the planned expansion of the pipeline from Ust-Luga, Russia to Greifswald, Germany.

Table of Contents

Findings 1

Recommendations 2

Overview 4

Nord Stream and European Energy Security 8

Natural Gas as Moscow's Geopolitical Tool 17

Impact of Nord Stream 2 25

Impact on Ukraine 29

European and U.S. Reactions 36

Endnotes 41



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FINDINGS

- ⤵ The Nord Stream 2 natural gas pipeline project is primarily a **political project** meant to advance one of the Kremlin's prime goals: extending geo-strategic influence over Europe by dominating the European energy market.
- ⤵ Securing financing is the **biggest vulnerability** of Nord Stream 2, given the current sanctions on Russian economic activity. By taking a leadership role in protecting Europe's energy security, the U.S. Administration can impede Gazprom from obtaining project financing for Nord Stream 2 from Western companies.
- ⤵ The EU does **not need more pipelines** for Russian gas, as currently about 40 percent of Russia's existing pipeline export capacity is idle.
- ⤵ Nord Stream 2 would **increase Europe's dependence** on a single supplier (Russia) and concentrate 70-80 percent of Russian gas imports to Europe in one Kremlin controlled route.
- ⤵ If completed, Nord Stream 2 would **undermine EU unity**, as the project seeks to favor some countries over others—amplifying Russia's "divide and rule" approach to energy politics.
- ⤵ Nord Stream 2 would position Russia as Europe's main gas supplier and could stifle opportunities for non-Russian companies to export liquefied natural gas (LNG) to the EU as rising gas prices in Europe make LNG more competitive to pipeline gas. This would **harm consumers** and would expressly contradict U.S. and EU policy priorities.
- ⤵ The Nord Stream 2 project would **undermine the EU's energy strategy**, which is based on promoting a diversity of energy sources through a proliferation of import routes. Russia seeks the opposite.
- ⤵ Gas from Nord Stream 2 will not necessarily be cheaper, as it would increase Gazprom's **sole-source provider leverage** over consuming countries. The hardest hit will be America's allies in Central and Eastern Europe.
- ⤵ Transporting Russian gas through Germany to Central and Eastern Europe would reduce gas transport capacities for non-Russian gas from Western European regional gas markets and **restrict market opportunities for companies delivering non-Russian gas**.
- ⤵ Contrary to Nord Stream 2's advocates, projected European gas demand increases are not a foregone conclusion. EU energy consumption is actually **expected to decrease** by 11 percent by 2040 and the share of gas in Europe's energy mix is projected to change by only 1 percent.
- ⤵ The Nord Stream 2 pipeline (along with the Turkish Stream pipeline under the Black Sea) will dramatically change the gas supply map of Europe by eliminating Ukraine as a major gas transit country and bypassing most of Central and Eastern Europe. This will leave Ukraine in a vulnerable international and financial position and expose it to further Russian aggression, thus threatening European stability.
- ⤵ Contrary to Gazprom's claims, Ukraine's gas transit system is in **good technical condition** and has been able to withstand random reductions of gas volumes and pressure on the Russian side.

- ⌚ If Nord Stream 2 is completed, Europe and Gazprom will lose the flexibility and spare capacity of the Ukrainian system and will likely have to invest more in storage for emergencies and peak demand. This may indirectly **increase the cost** of natural gas in Europe.
- ⌚ Nord Stream 2 poses a **risk of environmental damage** in the Baltic Sea, including a number of sites protected under the Natura 2000 program.

RECOMMENDATIONS

The Nord Stream 2 project should be stopped if the United States and European Union (EU) are determined to enhance European energy security, further liberalize the gas market, preserve European unity, protect member states from Russia's monopolistic energy competition and financial subversion, and decrease the risk of a further escalation in Russia's war against Ukraine. There are several means for halting Nord Stream 2:

- ⌚ **Tougher Sanctions.** The U.S. Administration must move toward implementing the sanctions authorized last year by the U.S. Congress. Congress granted the U.S. Administration bold new powers and a clear mandate to expand sanctions on Russia, including its new pipeline projects. The Administration has legal authority to apply sanctions and restrictions on private sector interests that seek to facilitate the Nord Stream 2 pipeline project. Since Congress passed H.R.3364—Countering America's Adversaries Through Sanctions Act—in August 2017, Russia has actually escalated its campaign against the West. The Kremlin has clearly not received the message that
- it may no longer challenge the rules-based international order upon which transatlantic solidarity is based. More comprehensive sanctions by the U.S. Administration would send that message to Moscow.
- ⌚ **Enhanced U.S. Leadership.** America must not be a spectator on Nord Stream 2—it must lead. If individual U.S. allies inside the EU feel they are “in it alone” against larger European powers or daunting financial interests, they are unlikely to exercise their full rights to oppose the completion of Nord Stream 2 under existing EU legal and political mechanisms. The best way to guarantee a robust and unified transatlantic coalition against Nord Stream 2 is for the United States to put itself forward as the leader of states who are opposed to the project on compelling legal, economic, and policy grounds. There are many avenues that can be used to leverage U.S. leadership, including co-signed public letters and multilateral working groups. A strong projection of U.S. leadership today will advance shared transatlantic interests far into the future.
- ⌚ **Greater EU Resolve.** EU leaders now have an unparalleled opportunity to demonstrate their ironclad commitment to the principles of the European Union by taking a stand against Nord Stream 2. The EU was founded on laudable principles such as the rule of law and the equality of all member states. However, Nord Stream 2 runs against EU competition rules and violates the 2009 EU Gas Directive. The European Commission proposed to update the EU Gas Directive, in order to ensure that the core principles of EU energy legislation are applicable to all gas pipelines to and from third countries. The proposed amendments would strengthen the legal case against the Nord Stream 2 pipeline.¹ By

opposing Nord Stream 2, EU leaders and member states alike can demonstrate that individual state financial interests do not trump the rule of law or the equality of all EU member states.

④ **Intensify Multilateral Dialogue with**

Germany. As the largest and wealthiest EU member, Germany's interests and outlook on Nord Stream 2 must be taken into account. However, Germany needs to understand the reasons driving the opposition of 20 EU members and the United States to a Russian energy project that undermines EU unity and transatlantic cohesion. Even if Nord Stream 2 is never completed, Moscow has evidently managed to widen divisions—both within the EU and between the United States and Germany—that need to be mended. Thus, increasing the tempo of high-level visits to Germany by U.S. officials and by EU member governments, and reinforcing Track II formats for engaging and explaining transatlantic opposition to Nord Stream 2 should be a high priority for all allies. The transatlantic dialogue on energy must be tightly moored to a strategy that benefits all participants.

④ **Develop More Alternatives to Russian**

Energy. Current EU laws prohibit monopolies in the energy sector and restrict monopolistic practices of providers such as Gazprom. The EU's stand on energy security is clear: European consumers lose when they depend on an energy monopoly and they win when multiple alternatives abound. While Russia will continue to play an important role in Europe's energy supplies, the EU needs to further diversify its energy imports. Support for the Southern Gas Corridor from Azerbaijan to Turkey and Southeastern Europe is critical for upholding the EU energy strategy based on diversity of suppliers. Further, the EU has the opportunity to increase the financial and

regulatory incentives for energy alternatives such as LNG, shale gas, renewables, and nuclear power to continue diversifying its energy mix.

④ **Uphold EU Law Consistently and Uniformly.**

The EU Gas Directive, the Third Energy Package, and previous European court rulings clearly show that the planned Nord Stream 2 pipeline, which would be owned and operated solely by Gazprom, are in conflict with European strategy. The European Parliament has the opportunity to affirm that EU laws apply to Nord Stream 2. The European Council can do its part by stating unequivocally that European laws pertain to the EU's territorial waters and exclusive economic zone. The message from Brussels must be clear: all companies doing business in the EU must play by European rules. This would send a strong message to Moscow that the Nord Stream 2 pipeline and the companies involved in building it would not be exempt from EU law.

④ **Firm Support for Ukraine.**

The United States and the European Union must commit to upholding the territorial integrity of Ukraine by all means, including major economic and energy projects with Russia that would affect Ukraine. Nord Stream 2 would divert most of the Russian gas transit from Ukraine and leave the country vulnerable to further aggression from Moscow—which in turn would threaten peace and security in Europe. American and European leaders must develop and coordinate a joint strategy to protect Ukraine and hold Russia responsible for annexing Crimea and launching a war in eastern Ukraine. The strategy should take into consideration how economic cooperation with Russia would hinder the diplomatic efforts to resolve the conflict.

Photo credit: Kremlin.ru.



OVERVIEW

The Nord Stream 2 project is a prospective offshore natural gas pipeline from Russia to Germany, running in parallel to the existing Nord Stream 1 pipeline on the Baltic seabed.² If constructed, Nord Stream 2 would double the system's total capacity from 55 billion cubic meters (bcm) per year to 110, all slated for direct delivery through a single transit route to one country, Germany. This volume would constitute more than 70 percent of all Russian gas supplies to the EU, based on 2017 levels, which was a record year for Russian gas exports.³

The project has become extremely divisive within the EU and the European Energy Union and has raised concerns in the United States because it would dramatically change the gas supply map of Europe. For the first time, Gazprom would have direct, unobstructed

access for the majority of Russian natural gas exports to lucrative Western markets. By redirecting most of its gas exports to Germany, Russia would be able to bypass Ukraine and most of the Central and Eastern European countries that rely exclusively on Russian gas. Such a development would pose a serious challenge to European energy security and could also endanger the security and sovereignty of several new EU members, along with their eastern neighbors Ukraine, Moldova, and Belarus. Additionally, it would give Russia an unprecedented advantage in Western European gas markets—thus ensuring Moscow's lasting economic and political influence in Germany and the EU.

For more than a decade, Russia has planned a number of new natural gas routes to Europe passing under the waters of the Baltic and

“Moscow has promoted these new projects as *“purely economic and purely commercial.”*”

Black seas: South Stream under the Black Sea and through the Balkans to Central Europe; Turkish Stream under the Black Sea and through Turkey to Greece and potentially Italy; and the enormous Nord Stream (1 and 2) corridor under the Baltic Sea directly to Germany. Moscow has promoted these new projects as “purely economic and purely commercial,” justified by expected increases in gas demand and diminishing natural gas production in Europe.⁴ One common goal of each of these projects, however, has been to divert gas transit from Ukraine, ever since the country embraced a pro-Western orientation and its society demanded democratization and inclusion in Western institutions.

So far, only one of the proposed projects—Nord Stream 1—has come to fruition, with the capacity to deliver up to 55 bcm of Russian natural gas to Germany through a pipeline laid on the Baltic seabed. This project was approved and commissioned in 2011—despite falling gas consumption in Europe at the height of the economic crisis—primarily because Russia’s European customers became worried by Gazprom’s interruption of supplies flowing through Ukraine in 2006 and 2009. Blaming Kyiv for the gas shortages, Moscow accelerated its bid to build new pipelines in order to bypass Ukraine. Although Poland and the Baltic States vehemently objected to Nord Stream, Germany went ahead with the project, which also included building two new high capacity onshore gas pipelines—the southbound OPAL and the westbound NEL.

After the demise of the South Stream project in 2014 under pressure from the European Commission, Nord Stream 2 has become Moscow’s top priority. However, neither Russia nor Europe needs more pipelines for

Russian gas. **In fact, the average annual utilization of Russia’s export capacity to the European Union was only 61 percent in 2017, leaving unused capacity of almost 100 bcm.**⁵

The current available transmission capacity for Russian gas to the 28 EU member states is 7,264 GWh/d, or 253 bcm per year, while Russian natural gas exports to the EU amounted to 155 bcm in 2017.⁶ Gazprom had a vacant export capacity of about 55 bcm in Ukraine alone and another 40 bcm elsewhere.⁷ **This means that Russia could export almost twice as much natural gas to the EU through its existing export pipelines as it would through the proposed Nord Stream 2.**

In a record year for Russian gas exports, Gazprom delivered to the EU, the Balkans, and Turkey a total of 194.4 bcm of natural gas in 2017, measured in standard Russian cubic meters. The European equivalent, measured at a different pressure and temperature, should be adjusted downward by 7.97 percent to 178.9 bcm.⁸ Russia’s total existing export capacity to Europe and Turkey, including Blue Stream, is 269 bcm per year, which means that Russia’s utilization rate in 2017 was 66.5 percent.^{9,10}

Russia, Germany, and a consortium of five Western European companies support the expansion of Nord Stream 1. Germany, the largest economy in the EU, sees the project as economically beneficial for itself and apparently underestimates the potential political consequences, such as complete dependence on Russian gas supplies that could make Germany susceptible to Russian political influence.

While Germany tries to separate its economic dealings from its political relations with Russia, many in Central and Eastern Europe consider Berlin’s support for the project counterproductive to transatlantic interests after Russia invaded Ukraine, meddled in the U.S., French, and German elections, and used a nerve agent to poison a former intelligence agent in the UK. Ironically, Germany issued final permitting approval for the Nord Stream 2 project on the day of the biggest collective expulsion of alleged Russian intelligence officers in history—from Europe, the United States and Canada—for Moscow’s role in the nerve gas poisoning of double agent Sergei Skripal and his daughter in the UK.

Contrary to Moscow’s claim that Nord Stream 1 was a purely commercial project, the Kremlin was pursuing geopolitical objectives, along with economic and commercial ones. With that pipeline, Moscow sought to bypass the Baltic States and Poland and deliver gas directly to Western markets. Completing Nord Stream 2 would permit Russia to suspend all gas transit through Ukraine and most of Central and Eastern Europe. The project is intended to undermine European energy security by limiting both the diversity of supply and diversity of transport options for other suppliers, make the EU markets more dependent on Russian gas, and allow Moscow to exert greater influence in Western Europe.

Some perceived Nord Stream 1 as a reasonable diversification of export routes for a large supplier. Russia supplied 155 bcm to the EU in 2017, constituting 31.6 percent of the total EU gas consumption of 491 bcm. It is the EU’s largest external supplier with a 43 percent share in all EU imports in 2017,

followed by Norway. But Nord Stream 2 goes far beyond reasonable diversification and prudent redundancy. Instead, the pipeline will serve as a monopolization tool, since it will channel the bulk of Russian gas supplies through a single transit route and make redundant the gas transmission system through Ukraine and much of Central and Eastern Europe. Unlike other suppliers, Russia uses natural gas as an instrument of influence, political pressure, control, subversion, and diplomacy from a position of power. The Kremlin's strategy to establish Russia as one of the poles of power in a multipolar world includes the use of energy as an instrument of subversion—from ingratiating itself with the West by offering energy discounts and enticing projects, to intimidating Eastern Europe with much higher gas prices and restrictive, decades-long contracts.¹¹

Russia's gas transport diversification strategy for its natural gas exports to Europe is not a typical market-driven expansion of export routes. Rather, for geopolitical and strategic reasons, its principal goal is to eliminate Ukraine as a transit country for Russian gas exports. Further, the Kremlin is trying to break the interdependence and interconnectivity of the European gas network by isolating Central and Eastern Europe, making it less relevant as a gas transit region. Following the gas supply interruptions in 2006 and 2009, the EU developed an extraordinary system of interconnectivity to shield vulnerable countries from Russia's energy monopoly. This system allowed Kyiv, after Russia's annexation of Crimea and attack on eastern Ukraine, to purchase natural gas from the EU—mostly Russian gas delivered to Poland, Slovakia, and Hungary and transported back to Ukraine through reverse-flow pipelines. Breaking the interconnectivity of this network will not just further isolate Ukraine, but will inevitably undermine the anti-monopoly

framework of the EU and create divisions within the Union, where twenty members oppose Nord Stream 2 and only a few firmly back it.

Currently, Ukraine is the main transit country for Russian natural gas to Europe and last year, it transported 93.5 bcm of gas to European consumers, a record figure for the past seven years.¹² It comprised about half of Russian gas exports to the EU and Turkey. At the end of 2017, a significant share of Ukrainian transit was rerouted to Nord Stream 1, after a decision by the Court of Justice of the European Union that temporarily lifted restrictions on Gazprom's usage of the full capacity of the OPAL gas pipeline (connecting Nord Stream 1 with Germany's gas network and extending to the Czech Republic).¹³ Ukraine still remained the main supply route of Russian gas coming to the EU, covering 39 percent of the total imports, while Nord Stream 1 accounted for 34 percent in the last quarter of 2017.¹⁴ This will change if Nord Stream 2 is built, leaving Ukraine with only 10-15 bcm of gas transit to Turkey and the Balkans.¹⁵

In addition to pressuring Ukraine, the Kremlin also aims to increase Russian influence in Western Europe, by establishing a monopoly on gas supplies in its markets. Such a scenario would create further divisions and disagreements within the EU, and place Russia in a prominent position as an important EU partner—to the detriment of Ukraine, which is fighting a Russian invasion, and its neighbors, whose security and sovereignty would also be threatened. The Nord Stream 1 expansion would also entangle Germany in Moscow's maneuvers to weaken and subvert the Central and Eastern European countries, pitting Germany against most new EU members.

NORD STREAM AND EUROPEAN ENERGY SECURITY

Does Europe Need Nord Stream 2?

If Nord Stream 2 were completed, the project would radically alter the gas supply map of Europe by:

- ⤵ Directing most of Russia's gas exports to Germany;
- ⤵ Eliminating Ukraine as a major transit country and bypassing Poland, Slovakia, and Hungary; and
- ⤵ Weakening the EU's eastern members and enabling Russia to exert greater economic and political influence over them.

Understandably, a number of key U.S. allies such as Poland and the Baltic States see the Nord Stream 2 project as a major security concern. Russia has routinely used energy supplies as an instrument of political and economic subversion in the past. The prospect of extensive Russian infrastructure near their maritime zones is perceived as a potential security risk if Moscow decides to "protect" its pipelines by expanding its military presence in the Baltic Sea. While the greatest international focus is currently on the pipeline's market and legal impact, this last possibility makes the Nord Stream 2 project a risk to European security.

Signaling the European Commission's concerns regarding Europe's dependence on Russian energy supplies, the EU

Commissioner for Energy, Miguel Arias Cañete, stressed at the Fourth Energy Summit in Brussels that "the international geopolitical situation requires the EU to look even more urgently at enhancing its own energy resilience." He also emphasized that Russian energy supplies into Europe should be subject to competitive pressures from other suppliers able to compete anywhere across the European market. Such competition, Cañete stressed in Brussels on 12 April, "will ensure that the continued role of Russia as one of our main energy providers does not come at the expense of our energy security and resilience, nor does it lead to excessive prices."¹⁶

Although the EU has made significant progress with respect to renewable energy and energy efficiency, fossil fuels such as coal, gas, and oil together account for more than 70 percent of its primary energy consumption. More than 80 percent of the oil and 70 percent of the gas is imported. The natural gas sector remains the main challenge for the EU since oil and coal markets are global, with multiple suppliers and multiple options for transportation. Natural gas is transported to the EU mainly by pipelines, with the share of liquefied gas imports accounting for only 12 percent in 2017. Natural gas imports to Europe are projected to grow in the short term, while long-term prognoses are varied and uncertain. Growth is predicted especially in LNG imports, prompting Gazprom to accelerate its mega-pipeline projects.

The Future of European Gas Demand

Since 2006, when plans for the Nord Stream 1 and South Stream pipelines were first

conceived, Russia has justified its ambition to build new pipelines to Europe by citing the expected increase in gas demand and a projected decline in indigenous gas production, which presumably would lead Europe to increase its gas imports. However, EU natural gas consumption dramatically decreased by over 22 percent during the economic downturn, from 496 bcm in 2010 to 381 bcm in 2014. It has yet to fully recover to 2010 levels.¹⁷ Although this sharp drop in gas consumption was due mostly to the economic and financial crisis, the EU decarbonization framework also played a prominent role and will continue to impact consumption of natural gas in the future.

Europe is the world's largest gas importing market. In 2016, almost 90 percent of Russia's natural gas exports were delivered to customers in Europe via pipeline, with the bulk of these volumes received by Germany, Turkey, Italy, Belarus, and the United Kingdom.¹⁸ But gas demand has fluctuated significantly over the past thirty years. It increased rapidly in the 1990s and 2000s with the development of the gas turbine and the construction of gas power plants, then started slowing even before the financial crisis of 2008 due to a maturing market, low population growth, higher gas prices, and the migration of industries to other geographic locations.¹⁹ EU gas demand projections through 2025 vary sharply, from a low-end forecast of 420 bcm per year to the much higher forecast of 570 bcm—a startling 150 bcm difference.²⁰ There are many factors that will determine future gas demand, particularly demand in power generation and transportation, but also including economic growth, commodity prices, renewable energy development, policies to reduce carbon dioxide (CO₂) emission, and technological innovation.

“In 2016, almost 90 percent of *Russia's natural gas exports* were delivered to customers in Europe via pipeline.”

The EU's green energy policy will remain a long-term factor in depressing natural gas demand. The EU 2020 energy strategy—enacted in 2009 and setting climate and energy targets for the year 2020—includes a 20 percent cut in greenhouse gas emissions (from 1990 levels), an increase in the use of renewable energy sources (RES) to 20 percent of total energy consumption, and a 20 percent improvement in energy efficiency. This strategy might seem to be conducive to increasing natural gas consumption in lieu of coal; but in reality, gas-to-coal switching in power generation was the main reason for gas demand reduction during the economic downturn, since coal was cheaper and the carbon dioxide (CO₂) price to enter the EU energy mix remained negligible.²¹

In addition, power generated from RES was added to the energy mix and its effect was significant. For example, a 200 GW increase in RES power regenerating capacity, installed between 2008 and 2014, would be the equivalent of a 60 bcm gas demand reduction, if coal or oil is not pushed out of the energy mix.²² Continuing implementation of EU energy and climate targets will likely lead to further installation of RES capacity in power generation and improvement in energy efficiency.

With the economic recovery, EU gas consumption levels started growing for three consecutive years: by 4 percent in 2015, 7 percent in 2016, and 6 percent in 2017, reaching 491 bcm, the closest level to that of 2010 since the recession.²³ Rising demand was also stimulated by the low oil and gas prices since 2014—a low gas price is the only

reference scenario associated with increased gas demand, according to the European Commission Energy Map 2050. At the same time, increases in the share of renewables in the total energy mix will lead to much lower gas demand, according to the same document.²⁴

In 2017, Gazprom recorded the highest imports to the EU, the Balkans, and Turkey, boosting its claim that the trajectory of EU gas demand would continue upward at a constant rate. Nevertheless, BP's Energy Outlook 2018 predicts that between 2016 and 2040, energy consumption in the EU will actually decline by 11 percent. European oil and gas production would also fall by over 60 percent by 2040; therefore gas import dependence is expected to rise from 72 percent to 89 percent.²⁵ According to BP, gas imports will rise to 37 Bcf/d by 2040, or 389 bcm a year. But even this increased number will only be a slight bump from the EU's total 2017 gas imports of 360 bcm. Europe will use less energy overall—but a greater percentage of the total will be from imported sources.

Gas demand may indeed increase when Germany closes its nuclear power plants by 2022 and EU members impose higher CO₂ prices. But that increase may be more modest than some expect, because natural gas is not the only alternative choice. Renewable energy sources will increase their share of EU energy consumption by 160 percent, while natural gas will only go up by 1 percent, according to BP. In addition, technological advancement and innovation in manufacturing and transportation could reduce gas usage in some sectors of the economy.

Major Russian gas pipelines to Europe. Map credit: Samuel Bailey.



Existing Pipeline Network for Russian Gas

The uncertainty of gas demand projections demonstrates that the increase in European gas demand in 2017 and 2018 can hardly justify new gigantic pipeline projects, since the total existing pipeline capacity carrying Russian gas exports to Europe greatly exceeds both the current and the projected demand. While Russian annual exports to the EU and Turkey grew from 110 bcm in 1990 to 194.4 bcm in 2017 (volumes are in Russian

cubic meters; in European cubic meters the 2017 figure is 178.9 bcm), the total existing pipeline capacity is over 273 bcm, including Blue Stream and the Trans-Balkan pipelines.²⁶ In other words, Gazprom is currently using only 65 percent of the existing total gas transit capacity available for Russian gas export to both the EU and Turkey, and has an even lower utilization rate of 60 percent for the EU alone.

However, almost half of all Russian gas exports to Europe and Turkey are transferred

through Ukraine (93.5 bcm). This is the primary reason behind Gazprom’s transit diversification strategy, which was introduced as soon as a democratic government took power in Kyiv after the 2004 “Orange Revolution”—ten years before Russia annexed Crimea in March 2014. Prior to the construction of Nord Stream 1, the total capacity of the Ukrainian gas transit system, 146 bcm, was fully booked by Gazprom.

Currently, there are several gas transit corridors from Russia to Europe and Turkey, which also reach Western European markets through the interconnected European gas network. Most of them traverse through Ukraine and Belarus:

- ④ **The Northern Lights** pipeline from the Urengoy gas field in Western Siberia to Belarus, Poland, Lithuania, and Ukraine, with a branch line supplying Saint Petersburg and Finland, has a maximum capacity of **51 bcm per annum**;
- ④ **The Yamal-Europe** pipeline starting at the Torzhok gas hub in Western Siberia to Belarus, Poland, and Germany, with a full capacity of **33 bcm per annum**;
- ④ **The Brotherhood** pipeline, the largest Russian gas transportation route, with a capacity of **100 bcm per annum**, runs from Urengoy in Western Siberia to Ukraine and Slovakia. The pipeline splits to reach the Czech Republic and extends to Germany, with a second branch to Austria that delivers Russian natural gas to Italy, Hungary, Slovenia, and Croatia;
- ④ The **Trans-Balkan** transportation route—with maximum capacity of **20 bcm per annum**—originates in Ukraine, deriving from the Soyuz

“The Kremlin has decided to **completely eliminate Ukraine as a gas transit country.**”

Transmission Capacity for Russian Natural Gas to Europe and Turkey at European Import Points

Point	Direction	Technical Capacity (GWh/d)
Greifswald	RU-DE	1570.3
Imatra	RU-FIN	249
Narva	RU-EST	12.6
Värskä	RU-EST	35.7
Korneti	RU-EST-LAT	283.5
Kotlovka	RU-BEL-LITH	325.43
Tietierowka	RU-BEL-POL	7.3
Kondratki	RU-BEL-POL	1024.3
Wysokoje	RU-BEL-POL	169.1
Drozdovychi	RU-UA-POL	135.6
Uzhgorod	RU-UA-SK	2080
Beregovo	RU-UA-HU	605.2
Orlovka	RU-UA-RO	766.2
		7,264 GWh/d 692 mcm/d at GCV 10.5 253 bcm/y
+ Blue Stream	RU-TR	16 bcm/y
	Total Export Capacity	269 bcm/y

Source: Author's calculations based on ENTSOG's Transmission Capacity Map 2017.

and Central Asia pipelines, and supplies Moldova, Romania, Bulgaria, and Turkey;

- ⤵ **Nord Stream 1** from Russia to Germany under the Baltic Sea, with a capacity of **55 bcm per annum**; and
- ⤵ **Blue Stream** from Russia through the Black Sea, with a capacity of **16 bcm**.

One study by the Oxford Institute for Energy Studies claims that the available infrastructure for Russian gas delivered to Europe has the capacity of about 230-240 bcm and the average annual utilization of Russia's export capacity reached 87 percent in 2017.²⁸ The

study cites a Gazprom presentation showing that the Yamal-Europe, Blue Stream, and Nord Stream 1 pipelines are currently at over 90 percent capacity utilization, leaving the "politically sensitive Ukrainian route" as the only available option for expansion. The study concludes that a physical constraint could limit Europe's access to one of its largest and cheapest sources of gas supply in the 2020s if the question of pipeline capacity is not resolved.

The transmission capacity available to Gazprom appears to be underestimated by 30-40 bcm per year in the above-cited study. When using the ENSOG's gas transmission

data for 2017 (which provides transmission capacity data at each cross-border import point from Russia, Belarus, and Ukraine to the EU), the total natural gas import capacity is 7,264 GWh/d or 692 mcm/d (at GCV 10.5).²⁹ This amounts to 253 bcm annually and it does not include Blue Stream from Russia to Turkey, since the pipeline does not enter the EU.

Obviously, Russia has abundant spare export capacity without Nord Stream 2. With a total available export capacity to the European Union of 253 bcm, Russia has delivered 155 bcm of natural gas, according to EU's official statistics. In fact, claims that Russia is *restricted* in its capacity do not seem to add up, since Russia enjoys *unused* capacity of almost 100 bcm per year—half of which is via the Ukrainian gas transmission system.

The Role of Ukraine

Much of the existing gas transport infrastructure linking Russia to Europe was built in the Soviet era. In the 1990s, Moscow started implementing a strategy to construct new pipelines to diversify its European supply routes away from Ukraine. The first one was Yamal-Europe to Belarus, Poland, and Germany, where construction stretched for more than 10 years until it reached full capacity in 2006. In the meantime, Gazprom built the Blue Stream pipeline from Russia under the Black Sea to Turkey, which has delivered 16 bcm of Russian natural gas to Eastern Turkey since 2003.

The third project became Nord Stream 1 under the Baltic Sea to Germany, operational since 2011. Following the preliminary ruling of the European Court of Justice to temporarily allow Gazprom to book the full capacity of

the OPAL pipeline, a considerable share of Ukrainian transit was rerouted to Nord Stream 1 in the last quarter of 2017. This means that in 2018, gas transit through Ukraine will be further reduced, awaiting the final judgment of the European Court of Justice in 2019.

Ukraine still remained the main supply route of Russian gas transiting to the EU in 2017, delivering 60 percent of total Gazprom exports. However, if the Nord Stream 2 pipeline is built, Ukraine will lose another 55 bcm of its current transit flow, with the rest threatened to be rerouted through the prospective Turkish Stream pipeline, another Black Sea project that Gazprom began constructing in 2017.

It is clear that the Kremlin has decided to completely eliminate Ukraine as a gas transit country and possibly obstruct its gas supplies in the future. Since the annexation of Crimea and Russian aggression in Ukraine's Donbas region, Ukraine has decreased the volume of natural gas it buys from Russia and increased the natural gas it buys from its western neighbors. However, much of the natural gas Ukraine purchases from Western Europe physically originates in Russia. If Gazprom decides to reduce deliveries to Poland, Slovakia, and Hungary—in case Nord Stream 2 is built and Eastern Europe finds itself encircled by Russian pipelines—the EU may not be able to supply Ukraine through reverse-flow pipelines. Gazprom would have a much stronger position in Western Europe and could use that leverage to advance its economic warfare against Ukraine.

Commercial or Political Project?

Proponents of the Nord Stream 2 project insist that it is an economically beneficial

undertaking for Europe, as it would diversify import routes and secure bigger volumes of natural gas as European production declines. German Chancellor Angela Merkel has repeatedly said that the project is good for Germany, particularly in light of the imminent shutdown of the country's nuclear plants in the next few years. Opponents argue that Russia does not need new infrastructure to deliver more gas, as it does not utilize its existing one. They reason that Europe needs diversification of supplies to *reduce* dependence on Russian energy sources; more Russian pipelines do not serve this goal. Most of the Central and Eastern European states see the project as a geopolitical endeavor by Moscow, which uses energy not only for commercial purposes but also as a political tool.

Russian President Vladimir Putin claims that the Nord Stream 2 project is “purely commercial” and “absolutely depoliticized.” He told journalists in Austria in February 2018, “We know that production in Europe is falling. Liquefied natural gas is not competitive in the European market, at least today. This is an obvious thing. If our partners support this project, then we will also do it.”³⁰

But is the project likely to be commercially profitable for Gazprom and its Western investors? The offshore portion of the project alone will cost €9.5 billion (\$11.6 billion). Along with the cost of building additional onshore pipelines, this amount will not be easy to recoup in the current competitive gas market in Europe. Western companies that are planning to provide 50 percent of the funding for the project are undoubtedly well aware of these numbers.

Unlike Nord Stream 1, built and owned by a

Gazprom-led consortium with the participation of four European energy companies, Nord Stream 2 is entirely owned by Gazprom as the single shareholder in the Switzerland-registered Nord Stream 2 AG.^{31,32} This puts the project in a very different position in respect to EU competition rules and existing natural gas directives adopted in the Third Energy Package.

Five European energy companies—Royal Dutch Shell, Austria's OMV, France's Engie, and Germany's Uniper and Wintershall—agreed to finance the project by providing €950 million each. Gazprom had initially attracted them with a promise of gaining 10 percent ownership in the pipeline for their investment, but that deal fell through after Poland's Office of Competition and Consumer Protection issued its objections in August 2016, arguing that the planned joint venture would undermine local competition. The Polish competition watchdog stated that Gazprom had a dominant position with respect to transmission of gas to Poland and the joint venture would only exacerbate that dominant position.³³

This objection led to negotiation of a different financing scheme. Under the new agreement, Gazprom would remain the sole shareholder of Nord Stream 2 and cover 50 percent of the cost of the pipeline, while the five European companies would provide the other half. Evidently, Gazprom attracted European partners with high interest rates for their short-term and long-term loans, although it still cannot be ruled out that the financing scheme would be linked to the companies acquiring bonds in the future.³⁴ If this happens, it could be considered a violation of the EU's competition rules.

After signing the financing agreement in Paris in April 2017, Gazprom Chief Executive Alexei Miller lauded it as a “breakthrough,” underscoring the importance Moscow places on securing the support of Western energy companies: “It’s a firm confirmation of foreign participation in the project, it’s an important financial basis for the project to be completed by the end of 2019.”³⁵

Apparently, securing funding for each company’s contribution will not be easy; each of the European companies is looking for partnerships or project financing to meet its commitment. The German energy group Uniper, for example, is reportedly looking for a partner to share its costs; Austrian OMV will turn to project financing; and France’s Engie hopes that “pan-European support will bring financial aid” to the project.³⁶

The financial maneuvering around Nord Stream 2 highlights a critical point. **Securing financing is the biggest vulnerability of the Nord Stream 2 project in the elevated sanctions environment against Russia.**

The U.S. President can prevent any Western company from working with Gazprom to obtain project financing for Nord Stream 2, under the terms of the Countering America’s Adversaries Through Sanctions Act, passed in July 2017.³⁷

While Western partners are taking a risk in funding Gazprom’s project, Nord Stream 2 clearly makes commercial sense for Moscow, because this large gas corridor would safeguard Russia’s position as the largest natural gas supplier to Europe. It would essentially allow Gazprom to lock in the Western European gas market before LNG imports increase and become competitive. Nord Stream 2 is therefore a direct challenge

to the EU’s policy of preventing monopolistic competition from taking root inside Europe; and in promoting diversification away from sole-source providers like Russia.

Europe’s gas supply options are increasing. The dramatic changes in the gas market brought about by the American shale gas revolution are already affecting Europe. This is not just on account of the current (relatively marginal) level of American LNG imports into Europe, but also from deliveries via other countries as well. For example, Gazprom was forced to slash the prices it charged for natural gas sold to Lithuania after Vilnius leased an LNG terminal in 2014 and enlisted Norway’s Statoil to deliver LNG to the Baltic States. Likewise, in June 2017, the American company Cheniere Energy made its first delivery of American LNG to the Klaipėda liquefied natural gas floating storage and regasification unit terminal in Lithuania. Moreover, Lithuanian gas traders can and do purchase supplies that are already on the water. This is because the Klaipėda LNG terminal has granted Lithuania options—effectively ending Russia’s gas supply monopoly in that country. As former Lithuanian Minister of Defense Rasa Juknevičienė said, “The Kremlin’s most important tool was gas, through which Russia delivered not only a natural resource but also corruption, financed Kremlin-friendly politicians, and bought media influence.”³⁸

LNG is also becoming more competitive in Europe as gas prices are rebounding. Contrary to Putin’s declaration that liquefied natural gas is not competitive in the European market, American LNG prices are not far from current European gas import prices. The U.S. gas price at Henry Hub—a U.S. distribution hub for natural gas—was around \$2.80 per

million BTU in April 2018. After factoring in liquefaction fees, shipping costs to Europe, and regasification fees, that would rise to \$6 per million BTU, higher than current European spot prices, according to Gazprom's estimates last year. But the EU natural gas import price increased from \$5.24 last year to \$7.81 in April this year.³⁹ While a spread of \$2 between the price at Henry Hub and European spot prices is barely sustainable for U.S. companies to sell LNG to Europe, the current spread of \$5 is more than enough to cover shipping and other expenses and make American LNG imports highly competitive. Furthermore, U.S. companies are already investing in upstream development to reduce the cost of American LNG and drive down prices. Once the cost of delivering liquefied natural gas becomes more affordable, more LNG facilities will be built.

Since U.S. LNG exports to Europe are expected to increase in the near future, Gazprom faces the prospect of fierce price competition with the United States in the European market. The Russian giant would have to choose between defending its market share by reducing gas prices or cutting back on supply to keep prices high. According to Jason Bordoff, a former adviser to President Obama, if Gazprom decides to compete over

price and defend its market share (the likely choice) then "the Russian company will need to accept it is entering a price war that may hit its revenues even if it can keep raising sales in a region hungry for energy."⁴⁰ This could present a highly negative outcome for the Kremlin.

On balance, the Nord Stream 2 pipeline will require significant investment by Gazprom and equally large project financing by European companies. It will provide a low return over a long period of time, as Gazprom will have to sell at market prices to Germany (and other Western European countries). Gazprom will likely try to recuperate its investment by increasing gas prices for Central and Eastern European states, which are overly dependent on Russian gas: Poland, Hungary, Slovakia, Bulgaria, Belarus, Moldova, Serbia, and Ukraine. Although Ukraine no longer imports gas from Russia, the volumes it purchases from the EU are actually Russian gas sent to Ukraine through reverse-flow pipelines. If the Russian gas sold to Slovakia, Hungary, and Poland becomes more expensive, Ukraine will end up paying for those increases. Moreover, Gazprom could refuse to sell additional volumes of gas to the countries that supply Ukraine as part of its economic warfare against Kyiv.

Russian President Vladimir Putin and Gazprom CEO Alexei Miller. Photo credit: Kremlin.ru.



NATURAL GAS AS MOSCOW'S GEOPOLITICAL TOOL

The Kremlin aims to establish Russia on the world stage as one of the poles of power in a multipolar world. A key element of this strategy is the use of energy as an instrument of influence, political pressure, control, subversion, coercion, corruption, and diplomacy.⁴¹

Despite being the largest country in the world

in terms of territory, Russia does not have many competitive advantages relative to the West, with an economy the size of Spain's, a dwindling population, declining social cohesion, and a corrupt authoritarian political system.^{42, 43} But Russia is the world's second largest producer of natural gas and the third largest producer of oil. Energy is Russia's main competitive advantage and it uses it as a tool in its foreign policy in a number of ways—from ingratiating itself with the West by offering energy discounts and enticing projects to sowing divisions among the EU's 28 members, threatening Central and Eastern

Europe with high gas prices and restrictive, decades-long contracts, corrupting politicians, and employing energy in economic warfare against countries that seek to distance themselves from Russia's orbit.

Since Vladimir Putin came to power in 2000, Russia has initiated a number of new pipeline projects in Europe to secure its market share, counter the competition, and divert gas transmission routes from Ukraine. Nord Stream 1 illustrated the Kremlin's use of engineered gas wars as a political tool to punish Ukraine for the 2004 "Orange Revolution," discredit it as a reliable gas transit country, and gain direct access, for the first time, to profitable Western markets. Nord Stream 2 followed the "Euromaidan Revolution" in Ukraine, the subsequent Russian annexation of Crimea, and the Moscow-supported armed insurgency in eastern Ukraine. South Stream was a megaproject pursuing geopolitical goals, but the European Commission was determined not to allow EU laws to be ignored and the project eventually failed. Its replacement, Turkish Stream, if completed, would divert the last Russian gas transmitted through Ukraine directly to Turkey under the Black Sea.

Nord Stream 1 and 2

Russia has used gas markets specifically to coerce foreign governments and influence them indirectly through energy companies and industrial lobbies or by targeting politicians directly. Nord Stream 1 was a glaring example of enticing Western politicians to make decisions that favor Russian interests in exchange for lucrative future returns. Former German Chancellor Gerhard Schröder was a strong advocate of Nord Stream 1 during his time in office.

He developed a close personal relationship with Russian President Vladimir Putin, who exploited it, among other things, to obtain support for the pipeline.

Schröder signed an agreement with Gazprom to build Nord Stream 1 just two weeks before the German parliamentary election in September 2005, which his Social Democratic party lost. A month later, shortly before he stepped down as Chancellor, the German government guaranteed €1 billion (\$1.27 billion) of the Nord Stream project cost, should Gazprom default on a loan from Deutsche Bank intended to finance the pipeline. Days after his chancellorship, Schröder joined Nord Stream AG as head of its supervisory board, drawing a high salary.⁴⁴

The massive loan guarantee, the largest ever issued by a German government, triggered a probe by the European Commission to determine whether it constituted state aid and if so, whether it was compatible with EU subsidy rules. German politicians, including some from Schröder's party, also called for a parliamentary investigation into the "pipeline affair." Gazprom ended up not taking advantage of the guarantee after criticism in the Russian press as well.⁴⁵

Schröder subsequently rose up through the ranks of the Russian energy industry to become chairman of the board of Nord Stream 2 and, in 2017, the Russian government nominated him as chairman of the board of directors of the Russian state-owned energy giant Rosneft, which is currently under U.S. and European sanctions for Russia's annexation of Crimea.⁴⁶ The appointment caused an uproar in Germany, with the chairman of the Bundestag's Foreign Affairs Committee, Norbert Röttgen, accusing

“Energy is a major instrument for Russia to wield its influence in the EU.”

Schröder of working to increase Germany's energy dependence on Russia. But this uproar did not dissuade Berlin to continue pushing for Nord Stream 2.

The former German Chancellor became synonymous with Western politicians using their high-level positions to cater to Russian energy interests. Lithuania's President Dalia Grybauskaitė caught the *zeitgeist* when she said that further development of the Russia-Germany gas pipeline Nord Stream means the “Schröderization” of the European Union's energy policy.⁴⁷

Although German Chancellor Angela Merkel has criticized her predecessor's ties with Russian energy companies, she seems to have embraced Moscow's key argument: that Nord Stream 2 is simply a commercial project, just another pipeline that will bring cheaper gas to Germany. Merkel has no apparent close ties to President Putin or any Russian energy companies; rather, she seeks to smooth Germany's transition to a low-carbon economy, after the decision to shut down the country's nuclear power plants in the wake of Japan's Fukushima disaster.

However, most observers, energy experts, and many politicians in Europe and the United States are convinced that Nord Stream 2 is also a geopolitical project, since its commercial justification appears to be hollow. As illustrated earlier, the total capacity of Russian pipelines to the EU is currently 253 bcm (compared to the much lower volume of 155 bcm exported by Gazprom to the EU's 28 member states). **As Russia does not need more capacity for commercial reasons,** the project appears to be a geopolitical tool aimed at weakening Ukraine.

Photo credit: Thawt Hawthje.



Despite the risks inherent in the massive Nord Stream 2 project, Gazprom has attracted partners in Europe to raise half of the project financing. These include France's Engie, Austria's OMV, British-Dutch Royal Dutch Shell, Germany's Uniper and Wintershall, which have agreed to provide half of the project financing as loans, but will not have a stake in the pipeline. Three of these companies have shares in Nord Stream 1: Wintershall Holding and PEG Infrastruktur AG (a subsidiary of Uniper) each have a 15.5 percent stake, and Engie has a 9 percent share. Furthermore, these companies have heavily invested in gas fields in Siberia.

Energy is a major instrument for Russia to wield its influence in the EU. Moscow has not stopped seeking ways to dominate Europe's gas market, as well as means to circumvent the European Commission's rules and regulations. One of the most significant goals

the Kremlin is pursuing by concentrating most of Russian gas exports in one route is to "bilateralize" Russia's relations with the EU through Germany. In other words, by enlisting the largest EU economy in the success of the project, Moscow aims to cut other EU members out of the decision-making process. Apart from being an economic powerhouse, Germany is also essential in maintaining sanctions against Russia. This is a major security concern for Ukraine, which has been fighting Russian intervention in its eastern territories for four years.

South Stream

The South Stream natural gas pipeline project was announced in 2007, shortly after former German Chancellor Schröder signed on Nord Stream 1. The idea to construct a pipeline from Russia to Europe under the Black Sea was further developed in 2009, after serious

interruptions by Gazprom of supply flows to Europe via Ukraine. Just like in the Nord Stream 1 case, the gas supply blockages through Ukraine were used to justify the project.

South Stream embodied every development in the European gas market that the EU was trying to prevent through the adoption of the Third Energy Package, which introduced a clear separation of supply and production activities from network operation, strengthened regulatory oversight by independent national energy regulators, and reinforced consumer protections.

- ④ The EU requires “unbundling” (e.g., separating energy producers and suppliers from network operators). Gazprom wanted to be both the supplier of natural gas and the owner and operator of the transportation infrastructure in Europe, creating a monopoly.
- ④ The EU requires allowing pipeline access to, and reserving pipeline capacity for, third-party suppliers. Those requirements extend to pipelines coming from non-EU states. Gazprom wanted to retain its position as the sole gas supplier, and also remain the pipeline owner, refusing to reserve capacity for any other gas supplier.
- ④ Instead of allowing an independent national regulator to determine gas transit fees (which are only supposed to cover network maintenance and repair costs), Gazprom wanted to retain control over setting up the transit fees to be paid to each country.

The EU adamantly opposed the project as a violation of the Third Energy Package and EU competition rules. In the end, it was the European Commission’s infringement procedure against Bulgaria for establishing

a joint venture between Gazprom and Bulgargas without an open tender that was the doom of South Stream. Bulgaria suspended the joint venture in June 2014 and Putin cancelled South Stream in December 2014, blaming Sofia for its demise.

By that time, it had become clear that Gazprom would not be able to overcome EU opposition to the project. Moreover, the European Commission had started an anti-monopoly probe against Gazprom that threatened serious financial fines. But most importantly, by the end of 2014, the sanctions for annexing Crimea were hitting Moscow’s ability to access international financing, oil prices were rapidly falling and shrinking Russia’s energy revenues—two major developments that probably had more to do with South Stream’s demise than Bulgaria pulling out of the venture.

As with Nord Stream 2, Moscow claimed that the South Stream project was entirely commercial, but observers clearly understood Russia’s political motivations. A comparison of Russia’s motivations and European reactions in the two cases highlights the key elements of Russia’s geopolitical energy strategy.

Moscow’s Strategy: Getting Ahead of the Competition

South Stream served as a tool to discourage investment in the EU-backed Nabucco project from Azerbaijan through the Caucasus and Turkey to Central Europe. Eventually, Nabucco was canceled by the Shah Deniz Consortium, which decided to invest in Southeastern Europe instead and build the Trans-Adriatic pipeline from Turkey through Greece to Italy. Gazprom was competing with Nabucco by luring the participating states with promises of cheap gas, high transit fees, and thousands

of new jobs, offering generous financing schemes, and raising hopes that each of these countries could one day serve as a “regional gas hub” for Russian gas.

Nord Stream serves as a tool to consolidate Russia’s position as the main European gas supplier and increase its market share in the EU from 31.6 percent to 35 percent and even reach 40 percent, as some Gazprom officials hope. Russian natural gas production has increased from 420 bcm to 470 bcm between 2016 and 2017 and may grow to 750 bcm by 2035. Therefore, Gazprom urgently needs larger markets able to pay a good price for its gas. It has lost its biggest client, Ukraine, which was buying up to 118 bcm of Russian gas in 1991. The volumes declined to 55 bcm in 2010—but that was still as much as the entire planned capacity of Nord Stream 2. Moscow is in a hurry to build Nord Stream 2 and lock in the European market before LNG supplies from the United States and elsewhere increase their share in the European energy mix. Nord Stream 2 is thus a tool to preempt the arrival of a robust competitor, giving unfair advantage to one supplier and closing options to others.

Circumventing Ukraine’s Transit Route

Both South Stream and Nord Stream were designed to bypass Ukraine as a transit country for Russian gas supplies. Although European studies have found that gas transit through Ukraine has stabilized and the EU is better prepared to handle incidental supply interruptions, Moscow adamantly seeks to avoid any commercial relations with Kyiv. In fact, when Sofia suspended South Stream in June 2014, the Russian newspaper

Kommersant admitted that Bulgaria’s decision would foil Moscow’s goal of bypassing Ukraine in transiting natural gas to Europe. Unless and until Nord Stream 2 is built, supply predictability will continue to depend on relations between Moscow and Kyiv.⁴⁸

By late 2014, Moscow had annexed Crimea and started a covert military intervention in eastern Ukraine, so it was clear that the Kremlin wanted to avoid transiting gas through Ukraine at any price. This makes both pipelines, South Stream and Nord Stream 2, fundamentally political, rather than commercial projects. The question is whether the EU should allow Russia to divert the gas to Germany and escape responsibility for starting a war in Europe. **If Russia succeeds in fully or partially circumventing Ukraine as the transit state for Russian gas to Europe, Ukraine would be more vulnerable to Russian military aggression and Western countries less motivated to protect it.**

Undermining European Anti-Competition Legislation

South Stream was a serious challenge to EU energy legislation at every level, as described above. Nord Stream 2 similarly defies EU anti-monopoly legislation by potentially creating a gigantic gas corridor through a single route, which would undermine free market competition, create exclusive market zones, and allow preferential access to Gazprom. This pipeline will effectively abolish every rule that has been put in place to open up the gas markets in the EU and to enhance investments in energy infrastructure and cross-border trade.

The Third Energy Package, which Gazprom is trying to sidestep, similarly provides a basis

to challenge Nord Stream 2. The offshore pipeline is 100 percent owned by Gazprom and runs through EU territorial waters and economic zones. It then connects to two onshore pipelines that are subject to EU energy laws.

In the South Stream case, the European Commission reacted harshly to the Bulgarian parliament's controversial amendment to the Energy Act that would have exempted a part of the pipeline from the EU's Third Energy Package—namely, the undersea section of the pipeline in Bulgarian territorial waters and two kilometers onshore. It was uncovered that Gazprom facilitated the amendment using pro-Russian members of parliament.⁴⁹ Ironically, the German Foreign Minister Frank-Walter Steinmeier was the one who raised the amendment's illegality with the Bulgarian President Rossen Plevneliev in May 2014.⁵⁰ The European Commission and most Western countries were extremely active in opposing Gazprom's attempt to evade EU laws in the South Stream case, despite the attempt of several participating states to exempt the pipeline from the Third Energy Package.

Dividing the EU

Both projects have succeeded in dividing the EU and creating a climate of confrontation between Western and Eastern members. In the South Stream case, several EU member states, most notably Bulgaria, Austria, and Hungary, lobbied the European Union to exempt South Stream from Third Energy Package legislation.⁵¹ In the Nord Stream case, Central and Eastern European members are trying to stop the project that would divert gas imports from Russia almost entirely to Western Europe, leaving them vulnerable to

Russian demands. These are the countries most dependent on Russian gas imports and they have historically also paid the highest prices because of a lack of supply alternatives.

Turkish Stream

When Vladimir Putin announced the cancellation of South Stream during his December 4, 2014, visit to Ankara, he also proposed a South Stream substitute, the Turkish Stream pipeline, which is slated to come onshore in western Turkey. The pipeline would use the already constructed the onshore sections of South Stream and the funds earmarked for that project.

Turkish Stream would follow South Stream's previously planned 660-km route beneath the Black Sea, but extend a further 250 km toward Turkey instead of making landfall in Bulgaria, thus avoiding EU territory. It is not clear whether the pipeline would be extended onshore to Greece or another Balkan country or would end in a storage facility to be built near the Turkish-Greek border. One of the possible scenarios is that Gazprom would try to use the Trans-Balkan pipeline in reverse. Turkish Stream is 100 percent Gazprom-owned and will not involve any foreign investors.

The initially announced capacity of this new pipeline is 63 bcm, exactly the capacity of the defunct South Stream.⁵² However, Gazprom's current construction plans list Turkish Stream capacity as 31.5 bcm.⁵³ On April 30, 2018, Gazprom announced that the first segment of the pipeline has been laid on the Black Sea floor.⁵⁴

The strategic purpose of Turkish Stream is not fundamentally different from that of South Stream: to isolate Ukraine and put pressure on the government in Kyiv, undermine the strategic importance of the Azerbaijan-led Southern Gas Corridor as a non-Russian transit route for non-Russian gas supplies, and divide EU member states. Furthermore, through Turkish Stream, Moscow is also aiming to undermine Azerbaijan's strategic partnership with Turkey, torpedo Baku's budding relations with southeastern European capitals, and stall its expanding partnership with the EU.

IMPACT OF NORD STREAM 2

Nord Stream 2 has sharply divided the EU. Those who claim it is merely a commercial venture are vehemently opposed by countries which are heavily dependent on Russian energy and have dealt with Russian subversion for decades. Even if the pipeline is never constructed, Moscow has already managed to inflict significant collateral damage to the unity of the European Union that will not be easily repaired. Twenty of the EU's 28 members oppose the project, and only three are die-hard supporters—Germany, which stands to benefit the most, and two countries that have companies participating in the project, Austria and the Netherlands. Putting the largest European economy's narrow business interests ahead of the serious security concerns of almost all new EU members, and completely ignoring the Kremlin-launched war in Ukraine, has been a bitter lesson for many capitals in Central and Eastern Europe. As Brussels is negotiating the terms of Brexit with the UK, Berlin seems to be further undermining the unity of the

European Union, which was created on the principle equality and respect for the national interests of all members.

Most Central and Eastern European states, which exclusively rely on Russian gas supplies, oppose the project as it threatens to not only bypass Ukraine, but also a large part of Central and Eastern European states, potentially isolating them from Western gas markets and leaving them vulnerable to pressure and manipulation by the Kremlin. Gazprom has long served as an arm of the Russian government, making it a powerful weapon for energy-poor countries along its borders. The European Commission has serious economic and political reservations about Nord Stream 2, but so far it has not found consensus among member states on the legal arguments it presented to the European Council to stop the project.

Implications for Western Europe

The EU's current import capacity exceeds 700 bcm—around 500 bcm from pipelines and 204 bcm from LNG regasification terminals.⁵⁵ In 2017, the EU imported 360 bcm of natural gas; consequently, almost half of the total EU import capacity is presently not utilized.

The LNG regasification capacity utilization rates are low, but market studies show that Europe is well positioned to receive more LNG in the oversupplied global gas market. Europe offers liquid markets, ample storage opportunities, and an interconnected gas network capable of moving gas volumes quickly. In addition, EU legislation guarantees third-party access to regasification terminals as well as the implementation of an effective secondary market for regulated and exempted terminals.⁵⁶

Reichstag building, Berlin. Credit: Pxhere.



Concentrating 70-80 percent of all Russian gas delivered to Europe in a single transit route through Germany will endanger Europe’s policy of diversification of energy sources and suppliers, as the demand for LNG would likely drop in a market oversupplied with Russian gas and locked into long-term contracts. This would leave the existing regasification terminals idle.

At present, half of Europe’s pipeline capacity is available to Russian gas flowing from east to west. Should Nord Stream 2 be built, Russian gas from the Nord Stream corridor would be transferred to Central and Eastern Europe in the opposite direction—from west to east. This shift will limit pipeline capacities that are now available to other gas suppliers, including from LNG suppliers, and restrict

market opportunities for companies delivering non-Russian gas.

Berlin says that the pipeline is an “economic project” that will deliver cheaper gas to German industries, blunting the impact of the imminent shutdown of German nuclear plants, and turn Germany into a European hub for Russian gas.⁵⁷ The arguments that “the more pipelines, the better” and “this is the same gas, only a different pipeline” are employed to justify Berlin’s pursuit of expected economic investments, promised lower gas prices, and potential gas transit fees. The biggest danger to Germany is political, however, as it will become heavily dependent on Russian gas imports, Russian contracts, and Russian economic investment.

Implications for Northern Europe and the Baltic States

The Northern European and Baltic states watch Nord Stream 2 particularly carefully, because of the project's potential to create national security risks for those regions. By concentrating 70-80 percent of Russian gas supplies designated for the EU, the Nord Stream 1 and 2 pipelines will become infrastructure of strategic importance for Russia. Since both pipelines and the natural gas they transport would belong to the state-owned company Gazprom, the Kremlin would be in a position to reinforce its military presence in the Baltic Sea under the cover of "protecting" its infrastructure. Russia has already significantly militarized the Baltic Sea. Additional Russian military deployment in the European Economic Zone of a number of EU and NATO member states could lead to heightened tensions within these alliances. The Nordic states are mostly concerned with security and defense issues, in particular the use and security of their ports. Finland has issued all necessary permits for the construction of Nord Stream 2, taking a neutral position and hoping that the project will not be politicized. Finland's Balticconnector will cross Nord Stream 1 and its ports will be used for the construction of Nord Stream 2.⁵⁸

The three Baltic States have been principally concerned for their security if Russia tries to control the Baltic Sea both militarily, competing with NATO, and economically, dominating the EU's energy supplies. The Baltic presidents brought their concerns to Washington and received the support of U.S. President Donald Trump earlier this year.

Poland has led the opposition to Nord Stream

2, just as it did in the case of Nord Stream 1. Many in Warsaw, including then-Foreign Minister, Radosław Sikorski, referred to Nord Stream 1 as a "Molotov-Ribbentrop pipeline," after the 1939 Soviet-Nazi deal to carve up Poland and other states in the region.⁵⁹

Current Polish Prime Minister Mateusz Morawiecki has asserted that the project is "unnecessary, detrimental, and divisive" and would make an all-out Russo-Ukrainian war more likely.⁶⁰ Polish President Andrzej Duda has also criticized the project and stressed that Poland has been taking measures to reduce its energy dependence on Russia, including the opening of an LNG terminal in Świnoujście, which has been receiving gas from Qatar and the United States. Lithuania has spared no expense for a floating LNG terminal, which helped it reduce natural gas dependency on Russia and also drove down Gazprom's prices.⁶¹

Implications for Central Europe

Most Central and East European states see Russia as a political and security threat, based on their own historical experiences, but also judging by the experience of Ukraine, which is fighting an assertive and expansionist Russia on its own territory. They perceive Nord Stream 2 as a Trojan horse in the EU energy market, a tool for dividing the EU, derailing efforts to diversify gas supplies, and establishing economic and political dominance over the continent by Russia.⁶²

There are, however, differences and nuances in each country's position. While the Baltic States perceive the pipeline as a security threat, the **Czech Republic** is less vocal, since it could be a beneficiary of the project. The OPAL and EUGAL pipelines will connect with

the Transgas system in the Czech Republic and transport gas from Germany to Austria, so Prague would benefit from significant gas transit tariffs. Furthermore, some analysts argue that the Kremlin has allies in Prague.”⁶³ The Czech government, however, has generally defended the positions of the EU and NATO.

Slovakia has suffered from Russian gas supply interruptions in the past. It has been a key transit country for Russian gas to Central and Southern Europe and a main source of reverse-flow supplies of Russian gas to Ukraine as well. Bratislava is critical of the impact of Nord Stream 2 on Ukraine’s security and economy, but has also advocated for lifting the sanctions against Russia.⁶⁴ If Nord Stream 2 were to be built, Slovakia would lose its position as a gas transit and distribution center and would become merely an end destination. The country may have difficulties accessing competitive gas markets in Western Europe, since the west-east pipelines have limited capacity and will be filled with Russian gas provided under costly long-term contracts.⁶⁵

In addition, prices for Russian gas in both Slovakia and Hungary will likely increase, to cover the large investment Gazprom would make to build the new pipeline and the transit tariffs for a much longer transportation route from Russia through the Baltic Sea to Germany and the Czech Republic. Gas prices for Ukraine will also increase because of the longer route and higher transfer tariffs.⁶⁶

Hungary has criticized Nord Stream 2, but seemingly not out of concern for the potential impact on Ukraine and its security. Budapest has recently restarted negotiations with Russia and Serbia for the construction of a smaller-size pipeline that would be supplied

through Russia’s Turkish Stream pipeline.

Implications for Southeastern Europe

Bulgaria is also eager to join in a potential pipeline connection to bring gas from Turkish Stream to the EU. Former energy minister Delyan Dobrev announced in 2017 that Sofia would “subordinate its gas plans to the construction of Turkish Stream and develop its gas transit network in order to supply the excessive gas quantities from Turkey to other countries.”⁶⁷ Bulgaria lost the Gazprom-promised benefits when the South Stream project was cancelled and also got on the wrong side of Russian President Putin, who blamed Sofia for the demise of the project. Sofia plans to utilize its existing gas network to transport spare natural gas from Turkish Stream to the EU, while fully complying with the Third Energy Package.

In reality, Bulgaria, Greece, and Macedonia are genuinely worried that if both Nord Stream 2 and Turkish Stream are built, gas transit through Ukraine could be suspended and the Trans-Balkan pipeline completely abandoned. This pipeline is the only gas supply route for Bulgaria and Macedonia and plays a major role in supplying gas to Greece. The next two years will be a critical time for these countries, because of the uncertainty of the Ukraine route while the Southern Gas Corridor from Azerbaijan is still under construction. But even when Caspian Sea gas eventually reaches the Balkans, the contracted volumes with Greece and Bulgaria are very small, just one bcm for each country, and will only increase marginally over time. Consequently, Bulgaria is trying to preserve the option of using the Trans-Balkan pipeline in reverse and wants to build a sizeable gas storage facility.

IMPACT ON UKRAINE

Ukrainian President Petro Poroshenko has called the planned Nord Stream 2 gas pipeline from Russia to Germany a “political bribe” to secure the loyalty of Western European countries to Moscow.⁶⁸ Meeting with the Chancellor Merkel in April, he stressed that Nord Stream 2 is a political project aimed at imposing a political and energy blockade on Ukraine. Speaking alongside Poroshenko, Merkel seemed to have shifted her rhetoric by stating that Nord Stream 2 is not possible without clarity on how Ukrainian transit will proceed. “This isn’t only about an economic project. There are political factors to be considered,” she added.⁶⁹ A few weeks later, however, Germany started the construction of the pipeline that would help divert all gas transit from Ukraine.

On April 5, 2018, the Ukrainian parliament appealed to the international community to stop the Nord Stream 2 pipeline. The lawmakers insisted that the European Commission should consult with Ukraine on this project, in line with the Association Agreement and the Deep and Comprehensive Trade Agreement between Brussels and Kyiv. They called for stricter sanctions on Moscow for invading Ukraine, covering Gazprom and affiliated persons.⁷⁰

A day later, Gazprom head Alexei Miller was added to the list of Russian officials sanctioned by the U.S., under the Countering America’s Adversaries Through Sanctions Act (CAATSA), adopted in July 2017.⁷¹ In response, Gazprom published the contract it awarded to another sanctioned individual close to

Vladimir Putin, Gennady Timchenko and his company Sroytransgas, to build the onshore connection to Nord Stream 2 on Russian territory.⁷²

Timchenko was included in the U.S. sanctions list of March 20, 2014. His Volga Group and ten related companies, including Sroytransgaz, were sanctioned by the U.S. Treasury Department on April 28, 2014. Sroytransgaz’s involvement in tenders to build South Stream pipeline sections in Bulgaria and Macedonia caused a sharp reaction in Washington and Brussels, contributing to the eventual suspension of the project. Now, Timchenko’s company will be one of the contractors building the Nord Stream 2 infrastructure, along with European companies including DeepOcean, Halfwave, Europipe, and Kvaerner.⁷³

The most significant impact of Nord Stream 2 will be on Ukraine. Kyiv is concerned that stripping Ukraine of its role as a major gas transit country will leave it vulnerable to increased Russian military aggression and threaten the country’s very existence. For as long as the West has a stake in the security of energy supplies flowing through Ukraine, leaders in Kyiv believe that their country would remain relevant to the West, thus its sovereignty would be better protected. They view Nord Stream 2 as a tool for increasing Germany’s dependence on Russian gas and potentially boosting Moscow’s influence in Berlin.

The total gas volumes exported through Ukraine is expected to drop to about 80-85 bcm in 2018, since Gazprom is now using the full capacity of Nord Stream 1, following an EU court decision in mid-2017. If Nord Stream 2 is completed, it would enable Gazprom to

divert 55 bcm of Russian gas that is currently being transited through Ukraine. This would leave only about 25-30 bcm to be moved through the extensive Ukrainian transmission system. That volume would be subsequently diverted to Turkish Stream, half of which is already built. In other words, **Ukraine would no longer be important to Russia as a gas transit route, and the Kremlin would have a freer hand to launch an aggressive subversion campaign or a more extensive military offensive against the country.**

The Russian government has mobilized all available resources to justify the development of new international gas pipelines that would bypass the traditional transit countries in Eastern Europe. The main target has been Ukraine, which has been a thorn in Moscow's side ever since the "Orange Revolution" brought Viktor Yushchenko to the presidency in 2004. The attempt to poison Yushchenko during the campaign was a signal of how critical it was for Putin to prevent a democratic government—one that would assert Ukraine's independence from Russia—from coming to power in Kyiv.

The main threat that Ukraine presents to Russia is the possibility of becoming a truly independent democratic state with a solid economy and a participatory society. Ukraine has far to go in building a fully-fledged democracy and a system based on the rule of law, a task not made easier by the war raging in its eastern part. Nevertheless, a thriving democracy in Russia's neighborhood is worse for the Kremlin than NATO troops at its borders. It would set an example for Russia's own population that could inspire Russian citizens to strive for democracy and endanger Putin's authoritarian regime. In this respect, Moscow perceives the European Union, with its democratic standards and foundation

in the rule of law, as a bigger threat to the current Kremlin leadership than NATO.

Gas Supply Crises

The gas supply interruptions in 2006 and 2009 that caused shortages in Europe are often described as "pricing disputes" between Russia and Ukraine. But the fact that President Putin personally authorized Gazprom to halt deliveries of Russian gas to Ukraine, broadcasted on state-controlled television, is often forgotten. The cut-off meant that Gazprom stopped paying transit fees (compensated in natural gas in lieu of cash) to Ukraine. Halting supplies to Ukraine in the midst of January left the country a Hobson's choice: either reduce transited volumes to Europe or let its own people freeze in the cold.⁷⁴ When Ukraine eventually reduced gas supplies to Europe, Russia accused Kyiv of "stealing" from European customers and jeopardizing Europe's energy security. Such propaganda served Moscow's goals: either obtaining silent consent in Europe to its taking control of the Ukrainian pipeline system, or justifying the construction of new pipelines diverting gas transit from Ukraine.

In 2009, Moscow caused a second gas crisis in Europe, cutting off all supplies through Ukraine to Europe for two weeks. Officially, Moscow demanded payments for past deliveries of gas to Ukraine, but its calculation was again to acquire Ukraine's pipeline system in exchange for the debt. Moscow launched another political propaganda campaign in Europe to present Ukraine as an unreliable gas transit country.⁷⁵ This time, however, Moscow miscalculated. The crisis exposed Europe's overdependence on Russian gas, the lack of sufficient storage capacity and interconnectors to allow for

Photo credit: Kremlin.ru.



reverse flows during gas shortages, and the need to de-monopolize Gazprom-controlled markets.

Economic Warfare

After the “Euromaidan Revolution” in Ukraine in 2014, followed by Russia’s annexation of Crimea and aggression in eastern Ukraine, the Kremlin set out to negotiate the expansion of the Nord Stream pipeline and build a new undersea corridor to western Turkey, in order to reroute all of its exported gas from Ukraine. In the current political situation, with Russia at war with Ukraine, taking control of Ukraine’s pipeline system is no longer an adequate goal for Moscow—now it wants Ukraine to be economically weakened, so that Kyiv cannot

sustain its military defense in the Donbas. In other words, **the Kremlin’s economic warfare against Ukraine aims to secure a military victory for Moscow.**

One of the first acts of economic warfare (apart from the takeover of all Ukrainian companies in Crimea) took place shortly after Victor Yanukovich, the pro-Russian president, was ousted in early 2014. Gazprom demanded that Ukraine repay debts for delivered gas, but at prices much higher than those negotiated by Yanukovich’s government. Amid tense price disputes and ongoing military actions in the Donbas, Gazprom stopped deliveries to Ukraine, which resulted in a pressure drop in pipelines throughout Central and Eastern Europe.

Ukrainian Prime Minister Arseniy Yatsenyuk asserted that Russia’s move was part of a larger pattern of Kremlin aggression that, “began with the annexation of Crimea, the Donbas terrorists, supplying Russian weapons and sending Russian bandits to the territory of Ukraine.”⁷⁶

By 2015, Ukraine, with the help of the EU, had made arrangements to buy natural gas from other neighboring countries: Slovakia, Hungary, and Poland. Although Ukraine still acts as a transit country for deliveries of natural gas from Russia to Europe, it no longer buys gas from Russia. In 2013, Ukraine was Gazprom’s third-largest client, importing 22.6 bcm from Russia. In 2017, Ukraine imported a total of 14.1 bcm of natural gas, none of it from Russia. Ukrainian authorities expect no direct import from Russia until the Kremlin ends its occupation of Ukrainian territory.

In 2015, Gazprom refused to extend an agreement to suspend its take-or-pay claims and payment demands for gas supplied to occupied regions in eastern Ukraine until the Arbitration Institute of the Stockholm Chamber of Commerce ruled on its dispute with Naftogaz, the Ukrainian gas network operator. On February 28, 2018, the arbitrators ruled that Gazprom should pay \$4.63 billion to Naftogaz for failure to meet minimum gas transit obligations. Since the court previously ordered Naftogaz to pay Gazprom for gas supply arrears, Gazprom’s net payment will be \$2.56 billion. Naftogaz said that the interest on Gazprom’s debt would compound at \$526,000 per day.⁷⁷

The arbitrators also decided that gas supplied by Gazprom to the war-ravaged Donetsk and Luhansk regions (areas not under Kyiv’s exclusive control) could not be billed to

Naftogaz. The arbitrator reduced the take-or-pay obligation of Naftogaz from 41.6 bcm to 4 bcm per year, while ordering Gazprom to sell 5 bcm of gas to Naftogaz at the price offered at the nearest liquid European hub. That price is lower than the current price available to Ukrainian companies at the country’s western border.⁷⁸

Gazprom reacted harshly to the decision, called it biased, and immediately returned to Naftogaz a pre-paid amount for small volumes of gas ordered in the midst of a European cold spell. As the expected gas was not delivered, pressure in the gas system suddenly fell, and Kyiv scrambled to send gas to European gas consumers. Ukraine had to reduce domestic gas consumption by 14 percent and buy emergency gas supplies from Poland at a higher price to ensure gas transit to its European customers—earning the praise of the U.S. State Department.⁷⁹

Following the February arbitration decision, Gazprom announced that the company had launched procedures in the Stockholm international arbitration court to terminate its gas supply contracts with Naftogaz. The Russian company also declared that it would not sign a new contract with Naftogaz once the current one expires at the end of 2019. Subsequently, Gazprom filed a request with a Swedish court to partially annul the final arbitration ruling.⁸⁰

Domestic Gas Production

In addition to importing gas from the EU and independent gas suppliers, Ukraine also ramped up its domestic production of natural gas, despite losing offshore gas fields appropriated by Russia in Crimea. The total proven reserves of Ukraine are

estimated at approximately 870 bcm, out of which about 420 bcm, including 50 bcm in Crimea, are difficult to reach, which means that recoverable gas reserves are nearly 447 bcm. Shale reserves are estimated at about 85 bcm, half of them—44 bcm—located in a conflict zone. As of 2017, explored reserves of gas in Ukraine at the existing rate of production—about 20.5 bcm per year—will last for 22 years.⁸¹

According to various estimates, gas reserves of the Black Sea shelf are between 3,000-13,000 billion cubic meters. Ukrainian domestic gas production was severely affected by the annexation of Crimea. Nevertheless, the decline in domestic production was reversed in 2016, followed by an increase in 2017. The expected volume of domestic gas production is slated to reach 27 bcm by 2020, according to the domestic production development plan approved by Ukraine's Cabinet of Ministers.

Contrary to claims by Russian-sponsored propaganda, the capital investments of the Ukrgezvydobuvannya Company, responsible for more than 70 percent of domestic production, increased to 5.6 billion Ukrainian Hryvnia (UAH), \$214 million in 2016, more than 39 percent compared to 2015. In 2017-2020 Ukrgezvydobuvannya plans to invest more than 100 billion UAH (\$3.8 billion) to develop domestic production, according to Naftogaz.⁸²

Russian Disinformation Campaign

Moscow and its advocates have claimed that Ukraine's transmission system is unreliable and poorly maintained. Russia argues that Ukraine only wants to preserve the gas transit through its territory, because the transit fees

are a significant contribution to the domestic economy. Ukraine earned about \$3 billion from the transit of Russian gas to the EU in 2017. The revenue is indeed a significant contribution to the state budget. However, Kyiv's equal concern is that Nord Stream 2 will have devastating consequences for the Ukrainian gas transmission system, since its completion will mean downsizing in the system that will cause thousands of jobs to be lost.⁸³

Ukraine's Gas Transmission System: Reliable or Not?

In the public debate over gas shipments to Europe, Russia's advocates justify the "need" for Nord Stream 2 by questioning the reliability of Ukraine's gas transmission system. The Ukrainian gas transmission system was developed during the Soviet era as a central distribution network for Soviet gas exports to Europe. The largest Brotherhood pipeline from Western Siberia is the main gas transmission artery. It also receives gas from the Northern Lights pipeline and the Soyuz pipeline, supplied from Central Asia.

The Ukrainian transmission system has a capacity of 146 bcm (based on maximum daily total flows) or 161 bcm (based on maximum daily flows on each delivery point).⁸⁴ When assessing these flows, it is apparent that the Ukrainian gas transportation system is able to operate at design capacity and has a significant level of flexibility during peak periods of gas supply and consumption. For example, in September 2017, when the Nord Stream 1 pipeline was under scheduled maintenance, the rate of annualized transit flows through Ukraine was 120 bcm—a sizable figure.

“Kyiv’s equal concern is that **Nord Stream 2** will have *devastating consequences for the Ukrainian gas transmission system.*”

One common refrain from Nord Stream 2 advocates is that the Ukrainian transmission system is vulnerable to disruption due to frequent incidents. However, the statistics show that Ukraine’s incident rate over the last 20 years has never exceeded 0.06 incidents per 1,000 km. This is actually a *far lower* incident rate than that of Russia’s 0.22 per 1,000 km; Russia has *four times* more disruptions per 1,000 km of pipeline than Ukraine. Besides, the bulk of the incidents cited by critics of the Ukrainian transmission system were clustered in 2015 and isolated to the war-torn Donetsk and Luhansk regions—Ukrainian territories controlled by Russian military and its proxies since 2014. Moreover, no transmission pipelines run through these regions.⁸⁵

Since January 2014, Ukraine has contended with the Russian invasion of its territory and an ongoing conflict in the eastern part of the country. During this time, Ukraine has nevertheless transmitted 305 bcm of Russian gas. In fact, in 2017, the Ukrainian route to Europe accounted for 52 percent of Russian gas delivered to Europe and Turkey. The European Commission continuously monitors gas flows via Ukraine and has been given full access to the infrastructure.⁸⁶ Meanwhile, Ukrtransgaz became a participant-observer of the European Network of Gas Transmission Systems operators in 2013.⁸⁷

The Ukrainian transmission system also appears to be markedly versatile. It takes a high degree of flexibility to endure the extreme fluctuations in volumes and varying gas pressure levels that the Ukrainian transmission system is subject to, unlike the Nord Stream 1 and Yamal pipelines that enjoy stable supply flows. ENSOG data demonstrates that Nord Stream 1 and Yamal are operated at capacity level, with very few

fluctuations, while the Ukrainian pipeline system is forced to deal with uneven capacity utilization.⁸⁸ Indeed, Russia may also have a compelling reason to keep open its export routes to Europe via Ukraine. This was demonstrated in September 2017, when Nord Stream 1 underwent scheduled maintenance. That month, the Ukrainian system carried up to 180 million cubic meters of gas per day. Without the Ukrainian transmission system, Gazprom would lose a versatile and reliable route with extensive backup capacity.

Another common refrain from Nord Stream 2 advocates is the level of transit tariffs charged for moving gas across Ukraine. A close look at the numbers, however, reveals that much of the criticism over tariffs is unfounded. After Ukraine joined ENSOG as an observer, it introduced new laws and an independent regulator. As such, Ukraine's tariffs changed in 2015, increasing from \$2.73 (per 1,000 cubic meters per 100 km) to \$4.50. In March 2017, the Ukrainian independent regulator introduced entry-exit tariffs for gas transmission within the territory of the country. The "entry-exit" model complies with the provisions of the Third Energy Package. The entry tariff is currently \$11.82 and exit tariffs vary from \$3 to \$7.65 per 1,000 cubic meters, which must be applied per day. The Ukrainian authorities note that the tariffs increased in response to actual costs based on Energy Community rules, Ukrainian law, and the Ukrainian entry-exit tariff methodology based on the values of the Regulatory Asset Base (RAB), which is compliant with European

regulation. Significantly, Gazprom refuses to pay the new tariffs introduced in 2015 or 2017, preferring instead to pay the tariffs set in its 2009 contract with Ukraine.

Yet all of this is looking backwards. Looking forward to 2020 and beyond, the transit tariffs in Ukraine will significantly decrease due to the end of the RAB-tariffs duration. This is because entry-exit tariffs are affected by the use of the accelerated depreciation of gas "transit assets," the utilization level of transit capacities, and the cost of capital until the end of 2019. The accelerated appreciation will be fully recognized by then, and tariffs will decrease significantly. This will bring Ukrainian tariff rates down to 3-4 times cheaper than the expected tariffs for Nord Stream 2. Moreover, Ukrainian tariffs could be further reduced if Gazprom booked capacity of the Ukrainian gas transmission system after 2020.

After years of financial struggles, Naftogaz has turned a profit in recent years—\$800 million in 2016 and \$1.5 billion in 2017. Although Kyiv has undertaken reforms of Naftogaz to reduce corruption and make it more competitive, Ukraine needs to speed gas market reform to ensure gas transit reliability and continuing EU support. The separation of the gas transmission function from Naftogaz and engaging a reputable Western transmission system operator to co-manage the gas network will make European gas shippers more confident of the stability of the Ukrainian transit route.

EUROPEAN AND U.S. REACTIONS

Nord Stream 2 presents one of the most consequential dilemmas of the EU's energy policy and accordingly, of its security policy as well. Recent gas crises have compelled the EU to come forward with a comprehensive European energy security strategy. Subsequently, the EU developed an entirely new regime of regulatory, legal, and commercial protections for European consumers against monopolistic energy suppliers like Russia. This strategy led to the establishment of the Energy Union, built on solidarity and trust. Russia has challenged the EU's resolve to successfully protect its energy security, Nord Stream 2 is one such challenge, while another is Russia's refusal to accept the decision of the Stockholm arbitration tribunal in its dispute with Ukraine in 2018—a refusal that exposed Moscow's contempt of the EU's court system. Rejecting a ruling by a European commercial court validates concerns that Moscow's objectives in building Nord Stream 2 are not commercial but geopolitical.⁸⁹

Nord Stream 2 and the EU's Energy Security Strategy

Nord Stream 2 threatens to destroy the solidarity of the budding Energy Union. Using gaps in the EU legislative regime, Gazprom and German private companies are already building the pipeline, aiming to preempt any decision by the European Commission that could stop or restrict the project. On March 29, 2018, the German government granted permission for construction to begin on Nord Stream 2. The decision gave the green light to construction of a 31-kilometer (20 mile)

section of the pipeline in Germany's exclusive economic zone. In May, Germany began construction, not waiting for the European Commission's pending legal decision on the project.

The goal is clearly to make Nord Stream 2 a *fait accompli* with too high a cancellation cost. Berlin evidently forgets that South Stream was stopped after Gazprom and several European companies had made significant investments, including building the Russian portion of the pipeline, delivering piping to the port of Varna in Bulgaria, and dispatching a barge to start laying the pipeline under the Black Sea. Speeding up construction work is not a guarantee of success.

In fact, on November 8, 2017, the European Commission submitted to the European Council a legislative proposal to clarify the common rules for gas pipelines entering the EU. The Commission insists that Energy Union principles should apply to offshore pipelines, especially the requirements for transparency, reliability, and accessibility. On March 21, 2018, the European Parliament's Committee on Industry, Research, and Energy approved this proposal.

In the past, when a Commission proposal was submitted to the Council, even if it is not adopted, the Court of Justice of the EU has interpreted Article 4(3) of the Treaty of the European Union as imposing on member states "special duties of action and abstention" given that such proposal "represent[s] the point of departure for concerted Community action."⁹⁰ In other words, member states are required to ensure that the objectives pursued by the Commission's proposals are not circumvented before they can be considered and adopted.

OPAL and EUGAL Pipelines

The Nord Stream corridor creates further legal problems onshore with the existing OPAL and NEL pipelines and the prospective EUGAL pipeline, which are all designed to transport Russian gas from Germany to other points in Europe. The pipelines are subject to the EU's 2009 Gas Directive and must reserve capacity for alternative suppliers. In 2016, Poland objected to the European Commission's decision to allow Gazprom to use the full capacity of the OPAL pipeline in Germany. However, the European Court of Justice and the German Higher Regional Court issued rulings in July 2017 upholding the decision by the European Commission from October 2016 allowing Gazprom to use to between 80 and 100 percent of OPAL's capacity.⁹¹

The Polish state-controlled oil and gas company, PGNiG, is concerned that the court decision will permit Gazprom to participate in the annual bidding for OPAL's capacity and book the pipeline for the next 15 years. The Russian company could reserve 100 percent of OPAL's capacity in one sitting, which would strengthen the position of Gazprom on the basis of a permitted exception. Although this would be in line with EU regulations, it would go against the EU diversification policy included in the objectives of the Energy Union. By gaining permission to use up to 36 bcm of OPAL's capacity, Gazprom would effectively prevent the realization of Poland's Northern Gateway initiative that contributes to creating a diversified regional market using LNG and Norwegian gas.⁹²

Confirming Warsaw's worries, Gazprom has already succeeded in procuring downstream capacity for its Nord Stream 2 gas in the regular early capacity auctions in March 2017.

“Nord Stream 2 threatens to destroy the solidarity of the budding Energy Union.”

The Russian company made legally binding bookings and reserved all existing pipeline capacity until 2039 or 2042 from the Nord Stream 2 entry point in Germany to the Czech-Slovak border.⁹³

The construction of the EUGAL pipeline is critical for Nord Stream 2. With a capacity of 55 bcm, the pipeline would transport gas from Nord Stream 2 to the Czech Republic and would then connect with the Transgaz network in Slovakia, sending gas from west to east. The EUGAL system operator Gascade, owned by Gazprom and Wintershall, would manage the construction of the pipeline—putting Gazprom in control of both the construction and the operations of the pipeline.

EUGAL is supposed to guarantee Germany the position of a key gas hub on the European market. In the absence of alternative branches, the planned flow capacity of EUGAL suggests that most of the gas from Nord Stream 2 would be directed to Central European markets and Ukraine, as well as to the Balkans and Italy. Gazprom's strategy of locking the market and closing it to potential alternative gas suppliers, increased LNG deliveries, and regional gas market development projects could significantly undermine European energy security and divert gas transit away from Ukraine. Evidently, the EUGAL pipeline is becoming a threat to the free gas market in Europe, the transatlantic cooperation on LNG exports, and Ukraine's stability.

The European Union's Dilemma

In November 2017, European Council President Donald Tusk urged EU member states to quickly draft legislation to hinder

implementation of the Nord Stream 2 project. Brussels has previously clarified that the rules should apply to all gas pipelines intended for the import of raw materials, including their offshore segments.⁹⁴

Subsequently, the European Commission requested changes to the Gas Directive to ensure that all import pipelines on EU territory and in the EU economic zone are subject to rules prohibiting direct ownership by gas suppliers, require non-discriminatory tariffs, and make capacity available to third parties. But an opinion of the legal service of the Council of the European Union on March 1, 2018 has opposed the European Commission's proposal to extend the internal energy market rules to Nord Stream 2. The opinion said that applying EU rules to offshore pipelines might breach UN law regulating the seas. The Council's legal service stated that the Commission's proposal "lacks any reasoning on the regulatory power of the Union over offshore pipelines" crossing an EU member state's exclusive economic zone.⁹⁵

Nevertheless, the EU parliament's industry committee subsequently endorsed the proposal, which also calls for EU economic sanctions against third countries that violate the law. In addition, the draft proposes any exemption for pipelines from the Third Energy Package to be limited to five years and decided with the input of the Commission and affected member states.⁹⁶ The endorsement opened the way for the EU parliament to vote on the proposal and amend the Gas Directive.

According to British energy expert Alan Riley, the EU's energy regulatory regime already applies to Nord Stream 2. European Union law applies to the internal waters and territorial seas that Nord Stream 2 will

traverse, and it is highly probable that it also applies in the exclusive economic zone through which Nord Stream 2 will pass. Nord Stream 2 would find it difficult to comply with the liberalization obligations, Riley says, and it would not be able to obtain Article 11 security of supply certification required under the Gas Directive.⁹⁷

U.S. Reactions

A bipartisan group of 39 senators sent a letter in mid-March to the U.S. Treasury Department expressing opposition to the Nord Stream 2 pipeline. “If built, it would leave U.S. allies in Europe more exposed to the Kremlin’s ‘malign influence,’” the letter read.⁹⁸

U.S. State Department spokeswoman Heather Nauert warned that any company involved in the project could run afoul of the Countering America’s Adversaries through Sanctions Act, which imposed sanctions last year on Iran, Russia, and North Korea. The legislation extended the prohibition on providing technology in support of new deep-water, Arctic offshore, or shale projects not only to projects in Russia, but also to projects anywhere in the world—if a person or entity is already subject to sanctions and owns 33 percent or more shares. Congress authorized the President to impose additional sanctions on persons or entities providing support to energy export pipelines.⁹⁹



Photo credit: Architect of the Capitol.

Existing U.S. sanctions against Russia make it impossible for Russian companies to access international financing for big projects such as Nord Stream 2. The sanctions particularly targeted future energy development projects by four Russian energy companies: Novatek, Rosneft, Gazprom Neft, and Transneft.¹⁰⁰

Gazprom is not on the sanctions list, but its CEO Alexei Miller was included this spring. Gazprom will have to pay for Nord Stream 2 in cash, borrowing from the Russian Federal Reserve, because Gazprombank is among the companies sanctioned by the United States. Consequently, Gazprom desperately needs European partners to finance Nord Stream 2, enticing them with high interest rates for loans or future interests in Siberian oil and gas fields.

Partners and prospective contractors in Nord Stream 2 are worried by the potential sanctions, because they threaten punishment for foreign firms that help Russia advance new energy projects, including pipelines. The measures could pose problems for large German, French, Anglo-Dutch, and Austrian firms that have pledged substantial loans to Gazprom to finance Nord Stream 2. Senior EU officials criticized the sanctions, suggesting that they help U.S. companies gain traction in the European gas market.

Moscow has also claimed that the United States wants to stop Nord Stream 2 because it would compete with American LNG

exports to Europe. While President Trump has included American energy dominance among the priorities of his administration, U.S. exports are not directed by the government, but by the market. For several years, American LNG shipments have mostly gone to Asian markets, where demand is great and prices higher. Only since European gas import prices went up by almost 50 percent in the last year—from \$5.24 MMBtu one year ago to \$7.81 in April—has the EU LNG market become attractive to U.S. exporters.¹⁰¹

For a long time, the U.S. government has been careful to enforce sanctions on European companies, mostly because Germany has been instrumental in implementing EU sanctions against Russia. Since Germany started building the pipeline, however, U.S. patience seems to be coming to an end. On May 17, U.S. Deputy Assistant Secretary of State for Energy Diplomacy Sandra Oudkirk said in Berlin that Washington opposes the project because it would increase Europe's reliance on Russia for gas supplies. The planned pipeline also raises U.S. intelligence and military concerns since it would allow Moscow to install undersea surveillance and monitoring equipment in the Baltic Sea, according to Oudkirk. She pushed back against suggestions of giving guarantees to Ukraine to preserve its gas transit, as proposed by Chancellor Merkel, saying that the U.S. administration does not believe any guarantees would be enforceable.¹⁰²

Endnotes

1. Alan Riley, "Nordstream 2," *CEPA*, (October 27), 2017, <https://www.cepa.org/nordstream-2>.
2. For the purposes of this report, CEPA will use Nord Stream 1 for the existing pipeline from Vyborg, Russia to Greifswald, Germany (two strings with a capacity of 27.5 bcm each), and Nord Stream 2 for the planned expansion of the pipeline from Ust-Luga, Russia to Greifswald, Germany.
3. The EU imported 360 bcm of natural gas in 2017. Russia's share was 43% or about 155 bcm. European Commission, Directorate-General for Energy, "Quarterly Report on European Gas Markets" (2018), <https://www.europeangashub.com/articles/quarterly-report-on-european-gas-markets-q4-2017>.
4. "Putin: Nord Stream-2 Not an Alternative to Ukrainian Transit Route," *TASS*, (February 28, 2018), <http://tass.com/economy/991997>.
5. Author's calculations based on published data by the European Network of Transmission System Operators for Gas (ENTSO) on transmission capacities at cross-border interconnection import points from Russia, Belarus and Ukraine. ENTSOG, <https://www.entsog.eu/maps/transmission-capacity-map>.
6. European Commission, "Quarterly Report on European Gas Markets," Volume 10, Issue 4, Fourth Quarter of 2017, (April 10, 2018), <https://www.europeangashub.com/articles/quarterly-report-on-european-gas-markets-q4-2017>.
7. "Delivery statistics," *Gazprom Export*, <http://www.gazpromexport.ru/en/statistics>.
8. Ukraine transported 93.5 bcm of Russian gas in 2017; Naftogaz's total export capacity is 146 bcm per annum. "Weekly Update on Ukraine #54," *Ukraine Crisis Media Center* (April 17, 2018), <http://uacrisis.org/66140-weekly-update-ukraine-9-16-april>; Naftogaz of Ukraine, <https://twitter.com/NaftogazUkraine/status/992373087235657728>.
9. Due to temperature differences, Russian cubic meters should be reduced by 7.97 percent to convert to European units. Jonathan Stern, "Reducing European Dependence on Russian Gas: Distinguishing Natural Gas Security from Geopolitics," *Oxford Institute for Energy Studies NG92* (2014): 3, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2014/10/NG-92.pdf>.
10. Gazprom Export, <http://www.gazpromexport.ru/en/statistics/>; "Russia's Gazprom Sets Annual Europe, Turkey Gas Export Record of 193.9 Bcm," *Platts* (January 3, 2018), <https://www.platts.com/latest-news/natural-gas/london/russias-gazprom-sets-annual-europe-turkey-gas-21959046>.
11. Even before the European Commission anti-monopoly probe against Gazprom concluded in May 2018, the company had to renegotiate a number of contracts offering better terms to Central and Eastern European customers.
12. "Weekly Update on Ukraine #54," *Ukraine Crisis Media Center*, (April 17, 2018), <http://uacrisis.org/66140-weekly-update-ukraine-9-16-april>
13. "EU Court Rejects Polish Bid to Halt Opal Pipeline Deal, Verdict in 2019," *Reuters* (July 21, 2017), <https://www.reuters.com/article/us-gazprom-europe-gas-court/eu-court-rejects-polish-bid-to-halt-opal-pipeline-deal-verdict-in-2019-idUSKBN1A625Z>.
14. European Commission, "Quarterly Report on European Gas Markets."

Endnotes

15. “Gazprom Does Not Rule Out Gas Transit Through Ukraine After 2019 Under Certain Conditions,” TASS (April 24, 2018), <http://tass.com/economy/1001473>.
16. European Commission, Speech By Commissioner Miguel Arias Cañete at the 4th EU Energy Summit: “International Geopolitical Uncertainties: Brakes or Accelerators for the EU Energy Transition?” (April 12, 2018), http://europa.eu/rapid/press-release_SPEECH-18-3242_en.htm.
17. Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_103a&lang=en. Measurements are converted from thousand tonnes of oil equivalent (TOE) to billion cubic meters (bcm) using BP’s conversion tables.
18. European Commission, “Quarterly Report on European Gas Markets.”
19. Anouk Honoré, “The Outlook for Natural Gas Demand in Europe,” *Oxford Institute for Energy Studies* NG 87 (2014), <https://www.oxfordenergy.org/publications/the-outlook-for-natural-gas-demand-in-europe/>.
20. The projections of the European Commission, International Energy Agency, HIS, Oxford Institute for Energy Studies, Cedigas, ENTSOG, Eurogas, and Statoil are compared in the study of Iulia Pisca, “Outlook for EU Gas Demand and Import Needs to 2015,” Clingendael International Energy Programme (2016): 18, http://www.clingendaelenergy.com/inc/upload/files/CIEP_paper_2016_2A_Demand_web.pdf.
21. *Ibid.*, 19-22.
22. *Ibid.*, 20.
23. European Commission, “Quarterly Report on European Gas Markets.”
24. European Union, “Energy Roadmap 2050” (2012), https://ec.europa.eu/energy/sites/ener/files/documents/2012_energy_roadmap_2050_en_0.pdf.
25. BP Energy Outlook 2018, <https://www.bp.com/content/dam/bp/en/corporate/pdf/energy-economics/energy-outlook/bp-energy-outlook-2018-region-insight-eu.pdf>.
26. Stern, “Reducing European Dependence on Russian Gas,” 3.
27. ENTSOG, Transmission Capacity Map 2017, <https://www.entsog.eu/maps/transmission-capacity-map>.
28. “Gazprom in Europe—Two ‘Anni Mirabiles’, but can it continue?,” *Oxford Institute for Energy Studies* (March 2018), <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/03/Gazprom-in-Europe—two-Anni-Mirabiles-but-can-it-continue-Insight-29.pdf>.
29. ENTSOG, Transmission Capacity Map 2017.
30. “Putin: Nord Stream-2 Not an Alternative to Ukrainian Transit Route,” TASS (February 28, 2018).
31. The five shareholders of the Nord Stream consortium, owner of Nord Stream 1 pipeline, are PAO Gazprom, Wintershall Holding GmbH (a BASF subsidiary), PEG Infrastruktur AG (PEGI/E.ON subsidiary), N.V. Nederlandse Gasunie, and ENGIE. The majority shareholder OAO Gazprom holds a 51 percent stake

Endnotes

in the pipeline project. German energy companies Wintershall Holding GmbH and PEGI/E.ON hold 15.5 percent each, and the Dutch natural gas infrastructure company N.V. Nederlandse Gasunie, along with the French energy provider ENGIE, each hold a 9 percent stake. <https://www.nord-stream.com/about-us/>.

32. Nord Stream 2 AG is a project company established for planning, construction, and subsequent operation of the Nord Stream 2 Pipeline. The company is based in Zug, Switzerland and owned by Public Joint Stock Company (PJSC) Gazprom. <https://www.nord-stream2.com/company/shareholder-and-financial-investors/>.

33. “Polish Anti-Monopoly Office Says Nord Stream 2 Threatens Competition,” *Reuters* (July 22, 2016), <https://www.reuters.com/article/poland-gas-nordstream-idUSL8N1A825Z>.

34. “The Nord Stream 2 Financing Agreements,” *Centre for Eastern Studies* (OSW) (April 26, 2017), <https://www.osw.waw.pl/en/publikacje/analyses/2017-04-26/nord-stream-2-financing-agreements>.

35. “Gazprom’s Western Partners Agree Financing for \$10.3 Billion Nord Stream 2 Pipeline,” *Reuters* (April 24, 2017), <https://uk.reuters.com/article/uk-russia-nordstream-financing/gazproms-western-partners-agree-financing-for-10-3-billion-nord-stream-2-pipeline-idUKKBN17Q1DC>.

36. *Ibid.*

37. “Gazprom: U.S. Expresses Clear Opposition to Russian Gas Pipeline,” *4-traders.com* (March 22, 2018), <http://www.4-traders.com/GAZPROM-PAO-6491735/news/Gazprom-U-S-expresses-clear-opposition-to-Russian-gas-pipeline-26207487/>.

38. Agnia Grigas, “US Natural Gas Arrives in Lithuania,” *Foreign Affairs* (September 12, 2017), <https://www.foreignaffairs.com/articles/baltics/2017-09-12/us-natural-gas-arrives-lithuania>.

39. YCharts, https://ycharts.com/indicators/europe_natural_gas_price.

40. “US and Russia Step Up Fight to Supply Europe’s Gas,” *Financial Times* (August 3, 2017), <https://www.ft.com/content/352f4cac-6c7a-11e7-b9c7-15af748b60d0>.

41. For more on Russia’s geopolitical strategy and arsenal of subversion, see Janusz Bugajski and Margarita Assenova, *Eurasian Disunion: Russia’s Vulnerable Flanks*, The Jamestown Foundation (2016), <https://jamestown.org/wp-content/uploads/2016/06/Eurasian-Disunion.pdf?x87069>.

42. The World Bank, Gross Domestic Product 2016, <http://databank.worldbank.org/data/download/GDP.pdf>.

43. For more on Russia’s decline, see S. Enders Wimbush and Elizabeth M. Portale, eds., *Russia in Decline*, The Jamestown Foundation (2017), <https://jamestown.org/wp-content/uploads/2017/08/Russia-in-Decline-Full-Text.pdf?x87069>.

44. “Germany Faces EU Probe Over Controversial Gas Pipeline Loan,” *Deutsche Welle* (May 10, 2006), <http://www.dw.com/en/germany-faces-eu-probe-over-controversial-gas-pipeline-loan/a-2014660>.

Endnotes

45. “EU to Probe German Gas Pipeline Guarantee” *Financial Times* (May 8, 2006), <https://www.ft.com/content/4b16eef6-deb2-11da-acee-0000779e2340>.
46. Rosneft, <https://www.rosneft.com/governance/board/>; “Former Chancellor Gerhard Schröder Takes Seat on Rosneft Board,” *Deutsche Welle* (September 29, 2017), <http://www.dw.com/en/former-chancellor-gerhard-schr%C3%B6der-takes-seat-on-rosneft-board/a-40741143>.
47. “Grybauskaitė Sees Nord Stream Project as EU Energy Policy ‘Shroderization,’” *Delfi.lt* (October 18, 2016), <https://en.delfi.lt/eu/grybauskaite-sees-nord-stream-project-as-eu-energy-policy-shroderization.d?id=72599306>.
48. “США перекрыли “Южный поток” (The U.S. Stopped South Stream), *Kommersant* (June 9, 2014), <http://www.kommersant.ru/doc/2489447>.
49. *Bulgarian National Radio*, June 8, 2014.
50. *BTA Online*, May 9, 2014.
51. Margarita Assenova, “South Stream: Bypassing Ukraine and Dividing the EU,” *Eurasia Daily Monitor*, Vol. 11, No. 83, The Jamestown Foundation (May 5, 2014), http://www.jamestown.org/single/?tx_ttnews%5Btt_news%5D=42315&no_cache=1#.VNV1S5RKHg.
52. Therese Robinson, “Russia and Turkey agree Turkish Stream plans,” *Interfax* (January 28, 2015), <http://interfaxenergy.com/gasdaily/article/15118/russian-and-turkey-agree-turkish-stream-plans>.
53. Gazprom Investor Day Presentation 2018, slide 15, <http://www.gazprom.com/investors/presentations/>.
54. “Газпром Завершил Строительство Первой Нитки Турецкого Потока” (Gazprom Completed Construction of the First String of Turkish Stream), *RIA Novosti Ukraine* (April 30, 2018), https://rian.com.ua/russia/20180430/1034749016/gazprom-zavershil-stroitelstvo-nitki-turetskogo-potoka.html?mc_cid=c3a5ea05cc&mc_eid=a92e42da43.
55. “A Glimpse at the Landscape of European LNG Regasification Infrastructure,” *Team Consult* (June 2017), https://www.europeangashub.com/wp-content/uploads/attach_807.pdf
56. *Ibid.*
57. “Merkel and Morawiecki: We have Different Views on Nord Stream 2,” *BiznesAlert.com* (February 19, 2018), <http://biznesalert.com/merkel-morawiecki-nord-stream-2/>.
58. “Nord Stream 2 – Divide at Impera Again? Avoiding a Zero-Sum Game,” *European Political Strategy Center* (October 27, 2017), http://ec.europa.eu/epsc/sites/epsc/files/epsc_-_nord_stream_-_divide_et_impera_again.pdf.
59. Alexandros Petersen, “The Molotov-Ribbentrop Pipeline,” *Wall Street Journal* (November 9, 2009), <https://www.wsj.com/articles/SB10001424052748703567204574499150087261242>.

Endnotes

60. “Nord Stream 2 Will Make Russo-Ukrainian War More Likely: Polish PM,” *Radio Poland* (February 15, 2018), <http://www.thenews.pl/1/10/Artykul/349432,Nord-Stream-2-will-make-RussoUkrainian-war-more-likely-Polish-PM>.
61. “Reduction of gas has been used as weapon against Ukraine: Polish president,” *Radio Poland* (February 19, 2018), <http://www.thenews.pl/1/12/Artykul/349956,Reduction-of-gas-has-been-used-as-weapon-against-Ukraine-Polish-president>.
62. “Nord Stream 2 – Divide at Impera Again?,” *European Political Strategy Center*. October 27, 2017.
63. Jakub Janda, “How Czech President Miloš Zeman Became Putin’s Man,” *Observer* (January 26, 2018), <http://observer.com/2018/01/how-czech-president-milos-zeman-became-vladimir-putins-man/>
64. “Nord Stream 2 – Divide at Impera Again?,” *European Political Strategy Center*.
65. *Ibid.*
66. Noah Gordon, “EU Need Not Fear New Russian Gas Pipeline,” *EurActiv*, January 19, 2018, <https://www.euractiv.com/section/energy/opinion/eu-need-not-fear-new-russian-gas-pipeline/>
67. “България ще Подчини Газовите си Планове на Турски Поток” (Bulgaria will Submit its Gas Plans to Turkish Stream), *Mediapool.bg*, June 12, 2017, <http://www.mediapool.bg/bulgaria-shte-podchini-gazovite-si-planove-na-turski-potok-news265097.html>.
68. “Nord Stream 2—A ‘Political Bribe’: Ukrainian President,” *Radio Poland* (April 9, 2018), <http://thenews.pl/1/10/Artykul/357932,Nord-Stream-2-a-%E2%80%98political-bribe%E2%80%99-Ukrainian-president>
69. “Merkel Casts Doubt On Nord Stream 2 Gas Pipeline,” *Deutsche Welle* (April 10, 2018), <http://www.dw.com/en/merkel-casts-doubt-on-nord-stream-2-gas-pipeline/a-43328058>.
70. Oleg Varfolomeyev, “Ukrainian Lawmakers Urge World to Reject Russo-German Nord Stream Two Gas Pipeline,” *Eurasia Daily Monitor*, Vol. 15, No. 55, The Jamestown Foundation (April 11, 2018), <https://jamestown.org/program/ukrainian-lawmakers-urge-world-to-reject-russo-german-nord-stream-two-gas-pipeline/>.
71. “Gazprom CEO Miller Says Proud Of Inclusion On U.S. Sanctions List,” *Reuters* (April 6, 2018), <https://www.reuters.com/article/us-usa-russia-sanctions-miller/gazprom-ceo-miller-says-proud-of-inclusion-on-u-s-sanctions-list-idUSKCN1HD2DH>.
72. “Газпром Отдал Контракт На 74,6 Млрд Руб. Структуре Тимченко” (Gazprom Awarded 74.6 Billion Rubles Contract to a Company of Timchenko), *RBC.ru* (May 3, 2018), https://www.rbc.ru/business/03/05/2018/5aeb65bd9a7947a2450ff767?mc_cid=c3a5ea05cc&mc_eid=a92e42da43.
73. “Nord Stream 2 Awards Steel Pipe Contracts to Three Firms,” *Reuters* (March 11, 2016), <https://www.reuters.com/article/nordstream-pipes-idUSL5N16J3VE>; Deep Ocean Group, <https://deepocean.com/deepocean-awarded-contract-ploughing-operations-nord-stream-2-project/>; Kvaerner, <http://www.kvaerner.com/toolsmenu/Media/Press-releases/2017/Kvarner-ASA-Contract-for-Nord-Stream-2-export-gas-pipeline-facilities/>.

Endnotes

74. Vladimir Socor, "Kremlin Stops Gas Deliveries to Ukraine," *Eurasia Daily Monitor*, Vol. 3, No. 1, The Jamestown Foundation (January 3, 2006), http://www.jamestown.org/single/?tx_ttnews%5Btt_news%5D=31237&no_cache=1#.VMLADC5SKHg
75. Andrew E. Kramer, "Russia-Ukraine feud goes beyond gas pipes," *The New York Times* (January 4, 2009), <http://www.nytimes.com/2009/01/14/world/europe/14iht-gazprom.2.19349065.html?pagewanted=all>.
76. "Gazprom Cuts Russia's Natural Gas Supply To Ukraine," *The New York Times* (June 16, 2014), <https://www.nytimes.com/2014/06/17/world/europe/russia-gazprom-increases-pressure-on-ukraine-in-gas-dispute.html>.
77. "Stockholm Arbitration Court Obliges Gazprom to Pay \$4.63 Bln to Naftogaz for Insufficient Transit Shipments," *Interfax-Ukraine* (February 28, 2018), <https://en.interfax.com.ua/news/economic/488575.html>.
78. See more on the arbitration court decision in Marc-Antoine Eyl-Mazzega, "The Gazprom-Naftogas Stockholm Arbitration Awards," *IFRI* (March 13, 2018), https://www.ifri.org/sites/default/files/atoms/files/eyl-mazzega_gazprom_naftogaz_stockholm_arbitration_awards_2018.pdf.
79. Heather Nauert, U.S. Department of State Spokesperson, <https://twitter.com/statedeptspox/status/969711312392609795?lang=en>.
80. "Gazprom Appeals Swedish Arbitration Court's Ruling," *TheLocal.Se* (March 22, 2018), <https://www.thelocal.se/20180322/gazprom-appeals-swedish-arbitration-courts-ruling-naftogaz-gas>.
81. Parliament of Ukraine, Concept for the Development of Ukraine's Gas Production (December 28, 2016), <http://zakon.rada.gov.ua/laws/show/1079-2016-p>.
82. Naftogaz of Ukraine, <http://www.naftogaz.com/www/3/nakweben.nsf>.
83. Parliament of Ukraine, Concept for the Development of Ukraine's Gas Production (December 28, 2016), <http://zakon.rada.gov.ua/laws/show/1079-2016-p>.
84. "Gas Production in Ukraine in 2013-2014," Naftogaz Europe, <https://naftogaz-europe.com>; "In 2017, Gas Extraction in Ukraine Increased by 450 bcm," Naftogaz of Ukraine, <http://www.naftogaz.com>; "In 2015, Gas Extraction in Ukraine Decreased by 3%," Naftogaz of Ukraine, <http://www.naftogaz.com/www/3/nakweb.nsf/0/256CC6FB8EB57D43C2257F4900552FB0?OpenDocument>.
85. Naftogaz of Ukraine, information on maximum daily total flows.
86. According to Naftogaz of Ukraine's daily calculations from 2009 to 2018.
87. "Gas Transit Monitoring Mission Of The European Commission Visited Ukraine," Ukrtransgas (December 28, 2016), <http://utg.ua/en/utg/media/news/2016/12/gas-transit-monitoring-mission-of-the-european-commission-visited-ukraine.html>.

Endnotes

88. "Ukraine's Gas Transmission System is More Secure than Russia's," *Ukrtransgas* (June 29, 2016), <http://utg.ua/en/utg/media/news/2016/6/ukraines-gas-transmission-system-is-more-secure-than-russias.html>; "Data Shows Ukraine's Gas Transit System is Almost 8 Times More Reliable than Russia's," Naftogaz of Ukraine (June 18, 2014), <http://www.naftogaz.com/www/3/nakweben.nsf/0/98A90DDFBDED941BC2257CFB0069E841?OpenDocument>.
89. Aliona Osmolovka, "Why the Seven Arguments Used to Justify Nord Stream II Are Just Plain Wrong," *Atlantic Council Blog*, April 30, 2018, <http://www.atlanticcouncil.org/blogs/ukrainealert/why-the-seven-arguments-used-to-justify-nord-stream-ii-are-just-plain-wrong>.
90. EUR-Lex, Judgment of the Court of 5 May 1981, *Commission of the European Communities v. United Kingdom of Great Britain and Northern Ireland*, Case 804/79, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A61979CJ0804>.
91. "The Lifting of OPAL Capacity Restrictions Leads to Shifting Gas Flows on Nord Stream," *McKinsey Energy Insight* (September 2017), <https://www.mckinseyenergyinsights.com/insights/the-lifting-of-opal-capacity-restrictions-leads-to-shifting-gas-flows-on-nord-stream/>.
92. "Jakóbik: Northern Gateway. How To Sustain The Protective Umbrella Against Gazprom," *Biznesalert.com* (July 31, 2017), <http://biznesalert.com/jakobik-northern-gateway-sustain-protective-umbrella-gazprom-analysis/>.
93. "Nord Stream 2 – Divide at Impera Again?," *European Political Strategy Center*.
94. "Tusk Urges European Union to Speed Up Work to Block Nord Stream 2," *UAWire.org* (November 13, 2017), <https://www.uawire.org/tusk-urges-european-union-to-speed-up-work-to-block-nord-stream-2>
95. "EU Legal Blow to Bid to Regulate Russia's Nord Stream 2 Pipeline," *Reuters* (March 5, 2018), <https://www.reuters.com/article/us-eu-gazprom-nordstream/eu-legal-blow-to-bid-to-regulate-russias-nord-stream-2-pipeline-idUSKBN1GH28D>.
96. "EU Lawmakers Back Draft Rules To Regulate Russia's Nord Stream 2," *Reuters*, March 21, 2018, <https://www.reuters.com/article/us-eu-gazprom-nordstream-parliament/eu-lawmakers-back-draft-rules-to-regulate-russias-nord-stream-2-pipeline-idUSKBN1GX1LE>.
97. Alan Riley, "Nord Stream 2: A Legal And Policy Analysis," *Centre For European Policy Studies* (2016), <https://www.ceps.eu/publications/nord-stream-2-legal-and-policy-analysis>.
98. "Gazprom: U.S. Expresses Clear Opposition to Russian Gas Pipeline," *4-traders.com*, March 22, 2018, <http://www.4-traders.com/GAZPROM-PAO-6491735/news/Gazprom-U-S-expresses-clear-opposition-to-Russian-gas-pipeline-26207487/>.
99. Ibid.
100. EIA, https://www.eia.gov/beta/international/analysis_includes/countries_long/Russia/russia.pdf.
101. YCharts, https://ycharts.com/indicators/europe_natural_gas_price.
102. William Wilkes, "U.S. Warns Sanctions Possible if Nord Stream Pipe Proceeds," *Bloomberg* (May 17, 2018).



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