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American LNG and the EU-Russia Relationship: The End of Moscow's Energy Weapon?

Stefano Cabras



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About the Author

Stefano Cabras currently works as a Bluebook Trainee at the European Commission DG for Climate Action. He holds a joint MA in Transatlantic Affairs from the College of Europe and The Fletcher School of Law and Diplomacy, a Master in European and International Studies from the University of Trento and a Bachelor's degree in Economics from the University of Rome Tor Vergata. His research interests include European and international energy and climate issues and transatlantic relations. This paper is based on his Master's thesis at the College of Europe (Manuel Marín Promotion) and at The Fletcher School of Law and Diplomacy.

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Dijver 11 | BE-8000 Bruges, Belgium | Tel. +32 (0)50 477 251 | Fax +32 (0)50 477 250 | E-mail ird.info@coleurope.eu | www.coleurope.eu/ird

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Abstract

This paper examines to what extent the shale revolution in the United States (US) and the new US position in the global energy market has impacted the European Union's (EU) gas market and energy relationship with Russia. Making use of an analytical framework to study energy interdependence, the paper notes that the EU has long promoted a liberal view of energy trade, founded on economic cooperation and market rules. On the contrary, Russia and the US have tended to adopt a realist perspective, whereby energy is viewed as a strategic asset that can be used to achieve geopolitical gains. Moscow, in particular, has been accused of using gas as a weapon to achieve geopolitical gains. The study finds that US liquefied natural gas (LNG) coming to the market as of 2019 has generated an oversupply and strengthened the position of EU buyers vis-à-vis the Russian Gazprom. Moreover, the innovative features introduced by US LNG have to some extent de-politicized the gas business and made the EU's market-oriented, liberal approach more effective. The paper concludes that due to today's abundance of gas supply options and to the increasing competitiveness of renewable alternatives to natural gas, the success of US LNG in Europe will depend both on its price competitiveness and on whether the Biden Administration will succeed in reducing the greenhouse gas emissions associated with US LNG and make it compatible with the objectives of the European Green Deal.

Introduction: The shifting geopolitics of gas in the European Union

Ever since the first Siberian gas molecules started flowing westward in the late 1960s, Europe's energy relationship with its biggest Eastern neighbour has been remarkably stable.¹ Gas trade between the Soviet Union and Western European countries remained indeed impervious to the geopolitical tensions of the Cold War, also surviving the dissolution of the Eastern bloc and the repeated crises between Moscow and its former satellite states. Today, Russia is an indispensable energy partner for the EU and covers around 44% of its natural gas imports.²

The United States (US) has never been a bystander in Europe's energy affairs and, interestingly, for a long time has posed the most serious challenge to the Europe-Russia energy relationship. Since the 1960s, US Administrations have been wary of Europe's dependence on Russian gas as they believed that it rendered European countries inclined to simultaneously appease Moscow's aggressive diplomacy while being less responsive to American interests and concerns. As European countries increased their dependency on Soviet hydrocarbons, successive US Administrations deployed a vast array of economic and diplomatic tools to weaken Moscow's foothold in Europe's gas import portfolio and to convince European allies to limit their supplies of Russian gas. However, the US incapacity to provide a real competitive alternative to Russian gas supplies, combined with Western Europe's need of ample and stable gas supplies to back up its rapid economic growth, have long prevented a successful US energy diplomacy vis-à-vis Europe.

During the last two decades, however, the geopolitics of European gas has evolved in ways that might relaunch the US role in Europe's gas supply. EU-Russia gas trade, long seen positively in Western European political circles, has come under intense scrutiny.³ The EU-Russia gas relationship has indeed suffered from the repercussions of the degradation of the broader partnership. The EU's enlargements to new members highly sceptical of

¹ In this paper the term Europe refers to the member states of the European Union (EU) as a whole, while specific reference will be made to EU institutions where necessary.

² Eurostat, "EU Imports of Energy Products – Recent Developments", 2020, <https://ec.europa.eu/eurostat/statistics-explained/pdfscache/46126.pdf> (2/12/2020).

³ Khrushcheva, Olga & Maltby Toman, "Evolutions and Revolutions in EU-Russia Energy Relations", in Claire Dupont & Sebastian Oberthür (eds.), *Decarbonization in the European Union: Energy, Climate and the Environment*, London: Palgrave Macmillan, 2015, pp. 201-221.

any political and economic engagement with Russia, combined with Moscow's increasingly assertive and revisionist foreign policy in the post-Soviet space, have transformed Russian gas into Europe's most divisive commodity,⁴ with supply diversification gradually becoming a crucial objective of the EU's external energy policy.

In this context, the North American 'shale revolution' was seen by many as a potential game-changer. This combination of hydraulic fracturing and horizontal drilling techniques that in the last decade has enabled the US to increase its oil and gas output by almost 60% has led policymakers on both sides of the Atlantic to consider US exports of liquefied natural gas (LNG) a potential tool to reshape the geopolitics of gas in Europe, notably by promoting US LNG to displace Russian supplies.

Against this backdrop, this paper examines to what extent the exceptional surge in US domestic gas production has reshaped the global gas industry and impacted the EU-Russia gas relationship. It also aims to contribute to the debate on the EU's actorness in external energy policy. It has been argued that the EU, when dealing with actors inspired by realist thinking, finds it necessary to compromise on its liberal paradigm to safeguard its internal market.⁵ In fact, in the context of the Europe-Russia relationship, the European Commission has often stepped in to supplement its regulatory toolbox with diplomacy and exemptions to open market rules.⁶ Against this backdrop, the paper argues that American LNG has contributed to render natural gas less susceptible to political manipulation as it strengthened the position of EU buyers vis-à-vis the Russian Gazprom. In this changed energy landscape, the EU's traditional regulatory toolbox is more effective in ensuring security of gas supply.

The rest of this paper proceeds as follows: The first part introduces the analytical framework which draws on two different competing perspectives inspired respectively by the realist and liberal schools of thought. Throughout the paper, this framework will be used as an interpretative lens to analyse the positions of the different actors involved in the EU-Russia energy equation, notably the EU member states, the Russian government

⁴ Buck, Tobias, "How Russian Gas Became Europe's Most Divisive Commodity", *Financial Times*, 16/07/2018, <https://www.ft.com/content/e9a49e8c-852c-11e8-a29d-73e3d454535d>, (20/2/2020).

⁵ Goldthau, Andreas & Nick Sitter, "A Liberal Actor in a Realist World? The Commission and The External Dimension of the Single Market for Energy", *Journal of European Public Policy*, 21:10, 2014, pp. 1452-1472.

⁶ *Ibid.*

and the US. Second, it analyses the EU-Russia energy relationship and its evolution over time, including Europe's changing perception of the energy relationship with Moscow. The third part analyses the American perspective on the Europe-Russia energy interdependence and the US involvement in Europe's energy affairs. The last part of the paper examines the geoeconomics of US LNG exports and the extent to which they have affected the global geopolitics of gas and the EU-Russia energy relationship. The conclusions summarize the findings of the paper and provide a brief outlook into the future.

Analytical framework

Different theories of International Relations have inspired different conceptualizations of energy security. Whereas realism sees energy as a strategic tool states employ to serve their national interests to the detriment of others, liberalism allows for the possibility of win-win cooperation and the role of international bodies in fostering global energy cooperation.⁷

According to the realist school of thought, international relations are characterized by anarchy, distrust and the ever-present prospect of war.⁸ Energy resources can thus trigger inter-state rivalry, strategic competition and, ultimately, military conflict.⁹ For realists, interdependence is a potential source of conflict between nations, an instrument through which states fight wars, a weapon that can be used by suppliers to achieve political gains.¹⁰ In this geopolitical understanding, "the struggle for energy is subsumed under the 'normal' competition for power, survival, land, valuable materials or markets"¹¹ and energy resources represent a tool for resource-rich nations to uphold their strategic

⁷ Stoddard, Edward, "Reconsidering the Ontological Foundations of International Energy Affairs: Realist Geopolitics, Market Liberalism and a Politico-Economic Alternative", *European Security*, 22:4, 2013, pp. 437-463.

⁸ Williams, Paul D., *Security Studies: An Introduction*, London: Routledge, 2013, pp. 3-34.

⁹ Hamon, David & Arnold Dupuy, "Security of Energy: The Conflict After Next?", *Strategic Insights* 7:1, 2008.

¹⁰ Belkin, Paul, "The European Union's Energy Security Challenges", *Congressional Research Service Report*, Washington, DC, 2008, p. 4; Bolton, Paul, Donna Gore & Ruth Winstone, "Energy Security", *UK House of Commons Research Paper*, 07:42, 9 May 2007, p. 1; Yergin, Daniel, "Ensuring Energy Security", *Foreign Affairs*, 85:2, 2006, pp. 69-82.

¹¹ Ciută, Felix, "Conceptual Notes on Energy Security: Total or Banal Security?", *Security Dialogue*, 41:2, pp. 123-144.

interests in the global system.¹² States' security depends on their ability "to control what they depend on or to lessen the extent of their dependency on others".¹³ Accordingly, nations should avoid relying on foreign suppliers¹⁴ and seek energy self-sufficiency to reduce imported foreign resources to the minimum.¹⁵

On the contrary, liberal approaches stress the existence of potential absolute gains stemming from energy interdependence. They emphasize the role markets and institutions can play in promoting win-win cooperation in the international energy landscape.¹⁶ From the liberal viewpoint, energy security is determined by market forces, i.e. supply and price.¹⁷ Threats to energy security do not stem from supplier states' malicious intentions but are rather the product of market failures.¹⁸ Under the liberal paradigm, not just energy relations but economic exchanges and trade at large have the potential to promote cooperation, shape common goals and constrain states' geopolitical ambitions.¹⁹

In the following sections of this paper, these opposite perspectives on energy interdependence will be used to analyse the different actors' positions. Western European countries have long believed that gas trade with Russia could be a tool to defuse tensions and create incentive for cooperation. On the contrary, Eastern European countries and the US see energy dependence on Russia as an inherent vulnerability and stress that Moscow's reckless foreign policy makes it an unreliable energy partner.

¹² Stoddard, *op. cit.*

¹³ Waltz, Kenneth, "Anarchic Orders and Balances of Power", in *Neorealism and its Critics*, Robert Keohane (ed.), New York: Columbia University Press, 1986, p. 103; Casier, Tom, "The Rise of Energy to the Top of the EU-Russia Agenda: From Interdependence to Dependence?", *Geopolitics*, 16:3, 2011, pp. 536-552.

¹⁴ Luft, Gal & Anne Korin, *Energy Security Challenges for the 21st Century: A Reference Handbook*, Santa Barbara, CA: Praeger, 2009, p. 340.

¹⁵ Collins, Alan, *Contemporary Security Studies*, Oxford: Oxford University Press, 2015, pp. 47-348.

¹⁶ Goldthau, Andreas & Jan Martin Witte, "The Role of Rules and Institutions in Global Energy: An Introduction", in *Global Energy Governance: The New Rules of the Game*, Andreas Goldthau & Jan Martin Witte (eds.), Washington, DC: Brookings Institution Press, 2010, pp. 1-22.

¹⁷ Chester, Linne, "Conceptualizing Energy Security and Making Explicit its Polysemic Nature", *Energy Policy*, 38:2, 2010, pp. 887-895.

¹⁸ Bielecki, Janusz, "Energy Security: Is the Wolf at the Door?", *The Quarterly Review of Economics and Finance*, 42:2, 2002, pp. 235-250.

¹⁹ Noël, Pierre, "Beyond Dependence: How to Deal with Russian Gas", *European Council on Foreign Relations Policy Brief*, 2008, https://www.files.ethz.ch/isn/93632/Beyond_Dependence_1108.pdf (10/06/2020).

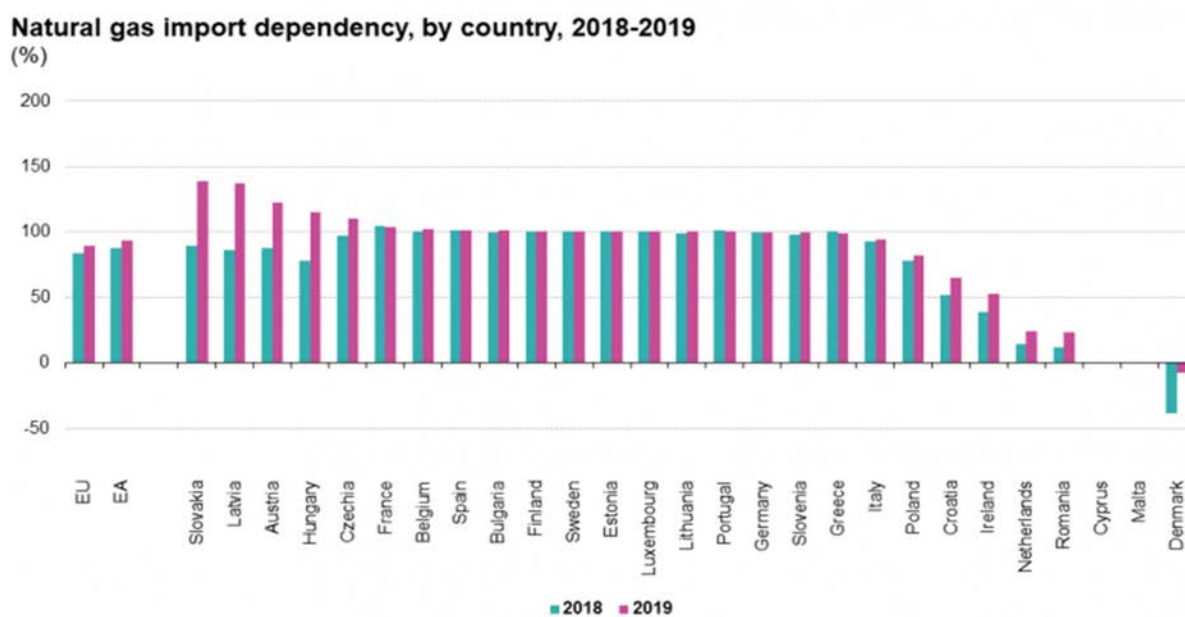
Europe's dependency on Russian energy

This section first discusses the extent to which EU dependency on Russian gas poses an actual threat to the EU's security of gas supply. Second, it illustrates the evolution over time and the EU's changing perception of its energy dependency on Russian gas.

Energy dependency as a security threat

Europe's natural gas consumption has steadily increased until the mid-2000s. The 2008 economic crisis dramatically reduced domestic demand, which has still only partially recovered. However, the parallel sharp decline in indigenous production, which has more than halved since the early 2000s, has offset the decrease in consumption. The combined effect of these dynamics has been an increase of Europe's reliance on external gas supplies, which reached an all-time high of 89.5% in 2019 (see Figure 1).²⁰

Figure 1. EU countries' dependency on gas imports



Source: Eurostat (online data code: nrg_cb_gasm)

eurostat

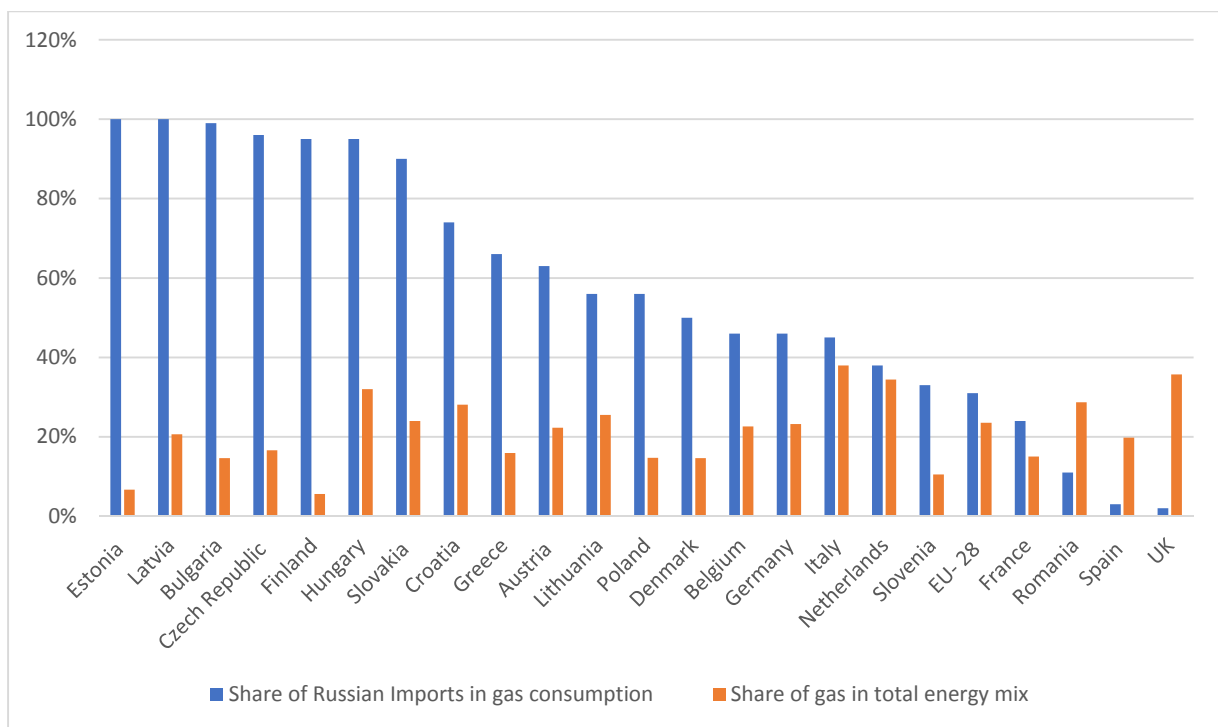
Source: Eurostat

²⁰ Eurostat, "Natural Gas Supply Statistics", https://ec.europa.eu/eurostat/statistics-explained/index.php/Natural_gas_supply_statistics (20/12/2020).

Europe’s gas import profile is heavily concentrated. Two main suppliers – Russia and Norway – account for more than three quarters of natural gas.²¹ Germany, Italy and France account respectively for 19.7%, 15.9% and 11.9% of total EU external natural gas imports.²²

Russia is the leading gas supplier of the EU and in 2019 accounted for 44% of its natural gas imports.²³ However, as Figure 2 demonstrates, Russia’s relative importance for EU members’ gas sectors varies, with Eastern EU countries being more dependent on Russian gas and having fewer alternative options.

Figure 2: EU countries’ dependency on Russian gas



Source: Author’s graph based on data from Eurostat.

Russian gas flows to Europe through Gazprom, the state-owned Russian company that holds a monopoly over Russian gas exports. Critics argue that Gazprom’s total control

²¹ Eurostat, “EU imports of Energy Products – Recent Developments”, 2020, <https://ec.europa.eu/eurostat/statistics-explained/pdfscache/46126.pdf> (2/12/2020).

²² *Ibid.*

²³ *Ibid.*

over export pipelines is a potential tool for political blackmail²⁴ and that gas exports are used to further the political agenda of the Russian government.²⁵ The debates about Europe's overreliance on Russian gas usually point to the vulnerability of some member states to Gazprom's politically motivated supply disruptions and monopolistic pricing behaviour. The Russian company is accused of applying higher prices to Eastern European countries, with gas import price differentials within Europe depending both on the width of each EU country's supply options and the status of their geopolitical relationship with Moscow.²⁶ Whether or not Russia has actually been using its gas as a weapon by "reducing or cutting off supplies to European countries in order to force compliance with its political and strategic aims",²⁷ still sparks debates among experts.²⁸

Twelve EU member states receive more than half of their gas supplies from Russia. This alone can, however, give rise to misleading perceptions about Europe's gas security, which is here defined as the "uninterrupted availability of energy sources at an affordable price".²⁹ When assessing Europe's gas security, different factors need to be taken into account. First, EU members that hold a bigger share of Russian gas in their supply portfolio – like the Baltic countries and Finland – are usually also those for whom gas plays a minor role in the energy mix (see Figure 2).³⁰ Second, the growing role played by the European Commission in energy affairs during the 2000s needs to be considered.³¹ The EU has long lacked formal powers in this field. Eventually, the Treaty of Lisbon established energy as a shared competence. Between 1996 and 2009, the European Commission issued three different legislative packages, which significantly contributed to the integration of the

²⁴ Petroleum Economist, "Russia: Gazprom's Export Monopoly Becomes Law", <https://www.petroleum-economist.com/articles/politics-economics/europe-eurasia/2006/russia-gazproms-export-monopoly-becomes-law> (5/12/2020).

²⁵ Aslund, Andres & Steven Fisher, "New Challenges and Dwindling Returns for Russia's National Champions, Gazprom and Rosneft", *Atlantic Council*, 2020, <https://www.atlanticcouncil.org/in-depth-research-reports/report/new-challenges-and-dwindling-returns-for-russias-national-champions-gazprom-and-rosneft> (15/12/2020).

²⁶ Korteweg, Rem, "Energy as a Tool of Foreign Policy of Authoritarian States, in Particular Russia", European Parliament, Directorate-General for External Policies, 2018.

²⁷ Dickel, Ralf, "Reducing European Dependence on Russian Gas: Distinguishing Natural Gas Security from Geopolitics", *Paper*, no. 92, Oxford Institute for Energy Studies, 2014.

²⁸ *Ibid.*

²⁹ International Energy Agency, 2019, <https://www.iea.org/areas-of-work/ensuring-energy-security> (1/06/2020).

³⁰ Bros, Thierry, "A New Narrative for Gas", Oxford Institute for Energy Studies, 2018.

³¹ Herranz-Surrallés, Anna, "An Emerging EU Energy Diplomacy? Discursive Shifts, Enduring Practices", *Journal of European Public Policy*, 23:9, 2016, pp. 1386-1405.

EU's internal energy market and tackled key weaknesses of its energy profile, ultimately providing Central and Eastern Europe with access to lower, competitive prices set by market forces.

The EU has gradually abolished destination clauses in supply contracts, which had limited the liquidity of the EU gas market by preventing buyers from reselling purchased gas outside their own market. Gazprom has long been accused of imposing destination clauses in its supply contracts to keep its dominant position in Eastern Europe.³² In 2016, faced with a law suit filed by the Juncker Commission, the Russian company offered a set of commitments, including the abolishment of destination clauses, the enablement of interconnections to promote supply diversification and the increase of the frequency of price revisions.³³

The absence of direct physical connections between regions has also been addressed. Most intra-European pipelines have indeed been equipped with an East-to-West capacity, thus providing Central and Eastern European countries heavily dependent on Russian gas supplies with access to liquid gas hubs in Western Europe.³⁴ In the last decade, infrastructure investments have also enhanced the inter-connectedness within and between countries, unlocking the isolation of regions previously dependent on a single supplier.

Simultaneously, EU countries have taken measures to increase their supply diversification. The Trans-Anatolian Pipeline – operational since December 2020 – delivers around 10bcm of Azerbaijani gas to southern Italy, and new LNG terminals in Poland and Lithuania have provided these two countries with access to new supply sources.

Overall, even in EU member states where it covers a large share of gas supply, Gazprom finds it increasingly difficult to display monopolistic behaviour or apply different tariffs

³² Loskot-Strachota, Agata & Georg Zachmann, "Rebalancing the EU-Russia-Ukraine Gas Relationship", *Bruegel Policy Contribution*, 2014.

³³ Stern, Jonathan & Katja Yafimava, "The EU Competition Investigation of Gazprom's Sales in Central and Eastern Europe: A Detailed Analysis of the Commitments and the Way Forward", Oxford Institute for Energy Studies, 2017.

³⁴ Harrison, Colin & Zuzana Princova, "A Quiet Gas Revolution in Central and Eastern Europe", *Energy Post*, 2015, <https://energypost.eu/quiet-revolution-central-eastern-european-gas-market>, (22/12/2020).

according to Moscow's political agenda. Compared to a decade ago, the EU enjoys a stronger position vis-à-vis Gazprom, while Moscow's ability to use gas as a geopolitical tool has significantly diminished.

The evolution of EU-Russia energy relations

The EU's external energy policy is constrained by the broader geopolitical environment, by the diversity of its member states' energy mixes, economic models and relations with Russia, as well as by the reluctance of European capitals to give up sovereignty on energy.

The global geopolitical and geoeconomic context has frequently affected the EU's bilateral relationship with Moscow. During the Cold War's immediate aftermath, Europe's relations with Moscow were influenced by the liberal, market-oriented paradigm which dominated global markets and promoted widespread liberalization, deregulation and privatization.³⁵ In this context, and encouraged by the collaborative stance of Russian leaders, European policymakers were convinced that Moscow, in need of external economic and political support, could be integrated in the EU's formal and informal networks of rules and norms.

Energy rapidly moved to the forefront of economic cooperation with Moscow.³⁶ The launch of the EU-Russia Energy Dialogue in 2000 represented the apex of Europe's liberal understanding of energy interdependence. Just like the European Coal and Steel Community in the 1950s, the dialogue was intended not only to secure energy supplies but also to serve as a springboard for political integration with Russia.³⁷ The then Commission President Prodi acknowledged that "commitments achieved through this dialogue in the energy sector could serve as a model for other sectors".³⁸ Energy was to be "a steppingstone towards a wider partnership between the eastern and western halves of the European Continent".³⁹

³⁵ Dannreuther, Roland, "EU-Russia Energy Relations in Context", *Geopolitics*, 21:4, 2016, pp. 913-921.

³⁶ Casier, *op. cit.*, pp. 536-552.

³⁷ Talseth, Lars-Christian, *The Politics of Power: The EU-Russia Energy Relations in the 21st Century*, Cham: Palgrave Macmillan, 2017, p. 2.

³⁸ European Commission, "Energy Dialogue with Russia – Update on Progress", 2002, p. 2.

³⁹ *Ibid.*

However, as the world entered the new millennium, it became gradually clear that the Western world had overestimated its capacity to expand the frontiers of the liberal order.⁴⁰ The 2000s witnessed the rise of resource nationalism and a geopolitical approach to energy security through state-owned national oil and gas companies.⁴¹ Russia, on its part, grew increasingly estranged from the Euro-Atlantic integration process and refused to embrace liberal political and economic norms in exchange for economic cooperation with Brussels.⁴²

In this context, the EU's 2004 enlargement to new members highly skeptical of any engagement with Russia caused further tensions in the EU-Russia gas relationship. Certain Western European countries – particularly Germany, Italy and France – have a long history of commercial engagement with Russia dating back to the Cold War era. ENI, the Italian national oil and gas company, developed in the 1950s a *parallel diplomacy*, which rested on the support of international *détente* with the Soviet Union and an intense energy relationship with Moscow to diversify energy supply.⁴³ Similarly, economic engagement and the expansion of Europe-Soviet energy relations was a distinctive feature of Germany's *détente*⁴⁴ and of the economic Ostpolitik promoted by German Chancellor Willy Brandt.⁴⁵ After 1989 energy cooperation with Moscow has intensified, as witnessed by the establishment of various German-Russian energy joint ventures.⁴⁶ French-Russian energy ties are less intense, due to the importance of domestically produced nuclear energy in France's energy mix. However, energy trade with Russia allows Paris to further stress its political autonomy from the US.⁴⁷

⁴⁰ Ikenberry, John, "The End of Liberal International Order?", *International Affairs*, 94:1, 2018, pp. 7-23.

⁴¹ Dannreuther, *op. cit.*

⁴² Spetschinsky, Laetitia, "De la Maison Commune Européenne aux Espaces Communs Euro-Russes. Une idée au cœur des bouleversements de la scène européenne de 1985 à nos jours", *Journal of European Integration History*, 11:1, 2005, pp. 61-81.

⁴³ Cantoni, Roberto, "Breach of Faith? Italian-Soviet Cold War Trading and ENI's International Oil Scandal", *Quaestio Rossica*, Ural Federal University, 2015, p.132.

⁴⁴ Högselius, Per, *Red Gas: Russia and the Origins of European Energy Dependence*, New York: Palgrave Macmillan, 2013.

⁴⁵ Graf, Rüdiger, *Oil and Sovereignty: Petro-Knowledge and Energy Policy in the United States and Western Europe in the 1970s*, New York: Berghahn Books, 2018, p. 259.

⁴⁶ Leonard, Mark & Nicu Popescu, "A Power Audit of EU-Russia Relations", *European Council on Foreign Relations Policy Paper*, 2007.

⁴⁷ Momtaz, Rim, "Emmanuel Macron's Russian Roulette", *Politico*, 2020, <https://www.politico.eu/article/emmanuel-macron-russian-roulette-vladimir-putin-security-partner> (15/12/2010).

France, Italy and Germany embrace a liberal view of energy interdependence with Moscow, which has long ensured uninterrupted cheap gas inflows coupled with high commercial predictability. Their gas relationship with Russia is fairly symmetric. Western European companies participate in profitable joint investments with Gazprom, offering access to capital and technology in exchange for long-term access to upstream gas production.⁴⁸ Despite Russia's role as an important gas provider, Western countries possess other supply options, and, most importantly, they provide Russia with large export markets.⁴⁹

Newer member states, particularly Poland and the Baltics, have an opposite – realist – view of energy interdependence with Russia.⁵⁰ These member states have long lacked access to different competitive gas suppliers and their weight in Gazprom's export profile is rather limited.⁵¹ Consequently, they perceive their dependency on Russian gas as a crucial strategic vulnerability which Moscow may exploit at any time.⁵² This East-West divide over Russia has deep historical roots – linked to the harsh legacy of the Soviet domination – and forms part of member states' different visions of the broader EU-Russia political relationship.⁵³ Anti-Russia sentiments are inherent in the Polish national identity.⁵⁴ The Baltic states, which have strong economic and cultural ties with Moscow, have grown increasingly fearful of Russian influence and expansionism via the Russian minorities in their countries and in the broader region.

⁴⁸ Cameron, Fraser, "The Politics of EU-Russia Energy Relations", in *EU-Russia Energy Relations*, Talus, Kim & Piero Fratini (eds.), *OGEL collection*, Euroconfidential, Brussels, 2010, pp. 25-38.

⁴⁹ Smith, Keith, "Russia-Europe Energy Relations: Implications for U.S. Policy", Washington, D.C.: Center for Strategic and International Studies, 2010, https://csis-website-prod.s3.amazonaws.com/s3fspublic/legacy_files/files/publication/100218_Smith_RussiaEuropeEnergy_Web.pdf (10/06/2020).

⁵⁰ Geden, Oliver, Clémence Marcelis & Andreas Maurer, "Perspectives for the European Union's External Energy Policy: Discourse, Ideas and Interests in Germany, the UK, Poland and France", *Working Paper*, German Institute for International and Security Affairs, 2006, https://www.swp-berlin.org/fileadmin/contents/products/arbeitspapiere/External_KS_Energy_Policy__Dez_OG_.pdf (06/06/2020).

⁵¹ Proedrou, Filippos, *EU Energy Security in the Gas Sector: Evolving Dynamics, Policy Dilemmas and Prospects*, Farnham: Ashgate, 2012.

⁵² Shotter, James, "Poland Aims to Break Dependence on Russian Gas", *Financial Times*, 2019, <https://www.ft.com/content/d1b9d764-febd-11e8-aebf-99e208d3e521> (3/4/2020).

⁵³ *Ibid.*

⁵⁴ Kalan, Darius, "Poland's New Populism", *Foreign Policy*, 2018, <https://foreignpolicy.com/2018/10/05/polands-new-populism-pis> (2/02/2020).

The surge in hydrocarbon prices in the early 2000s emboldened the Russian economy, while also determining Moscow's progressive loss of interest for closer alignment with EU policies. The EU's support for the 1999 North Atlantic Treaty Organization's military operations in Yugoslavia as well as its enlargement and increasing involvement in the Eastern neighbourhood have been perceived in Moscow as a direct encroachment on its own sphere of influence. At the same time, Russia's mishandling of the Chechnya crisis and its 2008 military operation in two Georgian secessionist provinces have undermined its credibility as a reliable partner for the EU.⁵⁵ Within only two decades, Gorbachev's ambitions of a 'Common European House' and Yeltsin's commitments to reforming the Russian society and economy left room to increasing competition and mistrust between Russia and the West.⁵⁶

In this context, energy policy rapidly turned from an opportunity for cooperation to an additional source of tensions between Russia and the EU.⁵⁷ A series of 'gas crises' damaged the energy relationship and triggered an intra-EU re-think.⁵⁸ The January 2006 clash between Ukraine and Russia over new terms for gas pricing and transit tariffs was solved after only 72 hours when gas supplies to Ukraine were reduced. After the 2006 crisis, a Poland-led group of Eastern member states criticized the EU's purely market-based approach to energy security and started a campaign⁵⁹ to stress the danger of relying disproportionately on Russian gas supply.⁶⁰ In January 2009 a crisis erupted over the renewal of the transit contract caused a 13-days cut off of gas supplies to South-Eastern European countries – most of them 100% dependent on Russian imports. Most importantly, it damaged Russia's reputation as a reliable supplier⁶¹ and strengthened the EU's resolve to decrease its dependency on Russian gas by finding alternative suppliers.

⁵⁵ *Ibid.*

⁵⁶ Zhiznin, Stanislav, *Energy Diplomacy – Russia and the World*, Moscow: East Brook, 2007.

⁵⁸ Haukkala, Hiski, "From Cooperative to Contested Europe? The Conflict in Ukraine as a Culmination of a Long-Term Crisis in EU–Russia Relations", *Journal of Contemporary European Studies*, 23:1, 2015, pp. 25-40.

⁵⁹ Hoffmann, Stephanie & Ueli Staeger, "Frame Contestation and Collective Securitisation: The Case of EU Energy Policy", *West European Politics*, 42:2, 2019, pp. 323-345.

⁶⁰ Marcinkiewicz, Kazimierz, "Comment: Europe's Energy Musketeers Must Stand Together", *Financial Times*, 2006, <https://www.ft.com/content/fec8768c-999c-11da-a8c3-0000779e2340> (10/02/2020).

⁶¹ Pirani, Simon, Jonathan Stern & Katja Yafimava, "The Russo-Ukrainian Gas Dispute of January 2009: A Comprehensive Assessment", *OIES Working Paper NG27*, 2009, <https://www.oxfordenergy.org/publications/the-russo-ukrainian-gas-dispute-of-january-2009-a-comprehensive-assessment> (10/06/2020).

Against this backdrop, the 2014 Russian invasion of Crimea and the shooting of the Malaysian Airways flight MH17, followed by President Putin's letter to 18 European heads of state threatening to stop gas supply to Ukraine, were the straw that broke the camel's back. The leaders of the G7 countries plus the European Commission gathered in Brussels on 5 June 2014 and declared that

the use of energy supplies as a means of political coercion or as a threat to security is unacceptable. The crisis in Ukraine makes plain that energy security must be at the center of our collective agenda and requires a step change to our approach to diversifying energy supplies.⁶²

The shock propelled energy security to the top of the political agenda.⁶³ The Juncker Commission's energy policy has conferred a geopolitical tinge to the EU-Russia gas relationship. This is reflected in the 2014 EU Energy Security Strategy which set the diversification of supply sources as a top priority of the EU's external energy policy.⁶⁴ The EU's increasing wariness of its dependency on Moscow's gas was also a main driver for the launch of the Energy Union in 2015. Polish Prime Minister Donald Tusk firstly proposed the Union in 2014, claiming that "excessive dependence on Russia makes Europe weak" and calling for Europe to take a unified stance vis-à-vis Russia to leverage its market power in negotiations and protect more energy vulnerable member states. In 2015, the Commission officially proposed the Energy Union. The document describes the EU's excessive reliance on Russia gas as a strategic vulnerability and reiterates the importance of reducing its dependency on Russian gas.⁶⁵ The 2016 LNG strategy also forms part of the EU's efforts to diversify gas supply. It recognizes the potential for LNG to provide EU countries with alternative sources of gas and encourages investments in strategic LNG infrastructures.⁶⁶

⁶² European Commission, "The Brussels G7 Summit Declaration", 2014, https://ec.europa.eu/commission/presscorner/detail/it/MEMO_14_402 (10/12/2020).

⁶³ Dreyer, Iana & Gerard Stang, "Energy Moves and Power Shifts: EU Foreign Policy and Global Energy Security", *Report*, 18:1, EU Institute for Security Studies, 2014, <https://www.iss.europa.eu/content/energy-moves-and-power-shifts-eu-foreign-policy-and-global-energy-security> (10/10/2020).

⁶⁴ European Commission, "European Energy Security Strategy", 2014, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0330&from=EN> (20/12/2020).

⁶⁵ Austvik, Ole, "The Energy Union and Security-of-Gas Supply", *Energy Policy*, 96, 2016, pp. 372–382.

⁶⁶ European Commission, "EU Liquefied Natural Gas and Gas Storage Strategy", https://ec.europa.eu/commission/presscorner/detail/en/MEMO_16_310 (20/12/2020).

The Commission has also gained a greater say in the EU's external energy affairs. The 2019 revision of the EU's Security of Gas Supply Regulation⁶⁷ establishes that all intergovernmental agreements signed by member states and relevant for EU gas security are subject to an ex-ante check by the Commission to evaluate compliance with EU gas market rules. This measure provides Brussels with the authority to stop pipelines that run counter to the objectives of the internal energy market. The Communication on a European Green Deal of December 2019,⁶⁸ while not focused on the security of gas supply, is relevant to the extent that it sets the tone of the EU's energy policy for the years to come. In line with the overarching objective of reducing greenhouse gas emissions, demand reduction and decarbonization will be the main tools through which the EU will guarantee energy security in the next decade, with diversification of routes and suppliers as a less central objective.

The US factor in EU-Russia energy relations

The transatlantic divide over Russian gas, which has persisted until today, is a remarkable example of a clash between two different conceptualizations of energy interdependence. Since the Cold War, the Western European understanding of Europe-Russia gas trade has been inspired by liberal theories, which posit that economic interdependence fosters cooperation and prevents states from using force.⁶⁹

By contrast, the US views European energy affairs through a realist prism and sees gas as a tool through which Moscow projects its power over the continent, to the detriment of US influence in the region.⁷⁰ American policymakers – during the Cold War and still today – claim that Russia uses gas as a strategic weapon to achieve political gains in Eurasia. Consequently, the US has repeatedly attempted, with mixed success, to leverage its

⁶⁷ European Parliament & Council, "Regulation (EU) 2017/1938", <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32017R1938> (10/12/2020).

⁶⁸ European Commission, "Communication on a European Green Deal", 2019, https://ec.europa.eu/info/publications/communication-european-green-deal_en (10/12/2020).

⁶⁹ Meister, Stefan, "From Ostpolitik to EU- Russia Interdependence: Germany's Perspective", in Kristi Raik & András Rácz (eds.), *Post-Crimea Shift in EU-Russia Relations: From Fostering Interdependence to Managing Vulnerabilities*, International Centre for Defence and Security, 2019, pp. 25-44.

⁷⁰ Euractiv, "US Insists Russia Using Energy as 'Political Tool' in Europe", 2018, <https://www.euractiv.com/section/energy/news/us-insists-russia-using-energy-as-political-tool-in-europe> (10/12/2020).

political and economic clout to influence Europe's strategic energy supply choices, in order to limit Europe's dependency on Russian hydrocarbons.

This section illustrates the history of American attempts to influence the energy supply choices of European countries and explores the reasons behind the failures and successes of the US energy diplomacy in Europe.

The first US diplomatic interference in European energy affairs was the Kennedy Administration's unsuccessful attempt in the early 1960s to halt the conclusion of the Druzhba pipeline contract between West Germany and Moscow.⁷¹ Two decades later, the advent of President Reagan to the White House elevated energy security in Europe to a new level of concern in American foreign policy.⁷² In the 1970s, the exponential growth of Soviet gas supplies to Europe was observed with growing concern in Washington, also because gas revenues provided Moscow with crucial foreign exchange reserves that could be used to sustain its massive military expenditures.⁷³

The 1981 Brotherhood pipeline, designed to bring Siberian gas to Western Europe, was the object of a full-fledged diplomatic offensive by the Reagan Administration.⁷⁴ The first US offer to supply West Germany with coal in lieu of natural gas was rejected, due to higher costs as well as technical and environmental concerns.⁷⁵ Confronted with the failure of soft diplomacy, the US government imposed sanctions against the European and American companies involved in the construction of the pipeline⁷⁶ and forbade US

⁷¹ Prince, Todd, "U.S. Efforts to Derail Russian Pipelines to Europe Have Failed Since The 1960s. Will Nord Stream 2 Be Any Different?", RFE/RL.com, 2019, <https://www.rferl.org/a/us-efforts-stop-russia-pipelines-will-nord-stream-2-be-different/30107938.html> (10/12/2020).

⁷² O'Sullivan, Meghan, "US Energy Diplomacy in an Age of Energy Abundance", *Oxford Energy Forum* 111, 2017, pp. 8-11, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/01/OEF-111.pdf> (10/10/2020).

⁷³ Central Intelligence Agency, "The Soviet Gas Pipeline in Perspective - Special National Intelligence Estimate", 1982, <https://www.cia.gov/library/readingroom/docs/19820921.pdf> (10/12/2020).

⁷⁴ Vicari, Madalina, "How Russian Pipelines Heat Up Tensions: From Reagan's Battle over Yamal to the European Row on Nord Stream 2", *Vocal Europe*, 2016, <https://www.vocaleurope.eu/how-russian-pipelines-heat-up-tensions-from-reagans-battle-over-yamal-to-the-european-row-on-nord-stream-2> (1/12/2020).

⁷⁵ *Ibid.*

⁷⁶ Lee, Jae-Seung & Daniel Connolly, "Pipeline Politics between Europe and Russia: A Historical Review from the Cold War to the Post-Cold War", *The Korean Journal of International Studies*, 14:1, 2016, pp. 105-129.

companies to sell products and technology to Soviet producers involved in the construction of the pipeline.⁷⁷ The Europeans vigorously opposed Reagan's embargo and contested the extraterritoriality of US sanctions.⁷⁸ The Brotherhood pipeline was officially inaugurated in France in 1984. The 1980s witnessed the growth of a dense gas pipeline network connecting the Soviet Union and Western Europe.

Since the 1990s, the US energy strategy in Europe has pursued two parallel objectives: to reduce Europe's dependency on Russian gas and to enable energy-rich former Soviet countries to sell their gas abroad without having to rely on Russia.⁷⁹ The Clinton Administration focused on the development of the Caspian Basin's energy resources and leveraged its diplomatic and economic clout to build a network of pipelines pumping Azerbaijani and Turkmen gas towards Europe without traversing Russian territory. In many respects, the project served more geopolitical than commercial purposes.⁸⁰ The initial plans to dip into Turkmen gas were abandoned in 2000, due to Ashgabat's withdrawal from the project. The joint efforts from Azerbaijan, Georgia and Turkey, combined with the strong diplomatic and economic support of the Clinton and George W. Bush Administrations led to the inauguration of the smaller South Caucasus Pipeline in 2006, which departs from Azerbaijan.

In the 2000s, the worsening of Europe-Russia relations, the gas crises and the mounting pressures of new member states pushed the EU to openly adopt the strategy of gas supply diversification long advocated by the US. The completion of the Southern Gas Corridor – a gas supply route traversing Turkey and connecting Europe with the Caspian region – became a central strategic objective of the Barroso Commission. The ambitious Nabucco pipeline, heavily sponsored by the US, was initially the centrepiece of the Commission's plan to bring 31bcm of gas from Turkey's Western border to Austria. However, the weak economic rationale,⁸¹ combined with the lack of EU internal cohesion – three German, Italian and French companies were participating in parallel in a Gazprom-sponsored

⁷⁷ Economist Intelligence Unit, "Quarterly Energy Review. USSR & Eastern Europe", 1982.

⁷⁸ *Ibid.*

⁷⁹ Boersma, Tim & Corey Johnson, "US Energy Diplomacy", *Working Paper*, Columbia University Center on Global Energy Policy, 2018, <https://energypolicy.columbia.edu/sites/default/files/pictures/CGEPUSEnergyDiplomacy218.pdf> (08/12/2020).

⁸⁰ Hill, Fiona, "Pipelines in the Caspian", *Georgetown Journal of International Affairs*, Winter/Spring 2004, <https://www.brookings.edu/wp-content/uploads/2016/06/20040301.pdf>.

⁸¹ Jovanovic, Miroslav, *The Economics of European Integration*, Cheltenham: Edward Elgar Publishing, 2013, p. 838.

directly competing with Nabucco - ultimately determined the failure of the project. Eventually, the Commission downsized its ambitions and chose the shorter and cheaper Trans-Adriatic Pipeline (TAP). TAP, which was completed in 2019, runs through Greece and Albania and under the Adriatic Sea into southern Italy to transport Azerbaijani gas to Europe.⁸²

This European pipelines game reveals that, under intense US pressure, the Commission abandoned its liberal market-oriented approach to actively engage in energy geopolitics and business decisions. Similarly, the more than decade-long transatlantic and intra-European quarrel over Nord Stream – the most recent pipeline project bringing Russian gas to Europe – exposes both intra-European divisions over gas supply security and the US pressures on the Europe-Russia energy relations.

Nord Stream is composed of two pipelines (NS1 and NS2) with a total capacity of 110 bcm that link Russia directly with Germany through the Baltic Sea. In its initial configuration in the early 2000s, Nord Stream carries a symbolic meaning that went beyond the mere economic rationale. During the opening ceremony in November 2011, German Chancellor Angela Merkel described the project as a “milestone in energy cooperation” and the “basis of a reliable partnership” between Russia and Europe.⁸³ In September 2015, Gazprom and major European companies signed an agreement to double the capacity of Nord Stream, by adding a second line (NS2). While Poland was left virtually isolated in its opposition to NS1,⁸⁴ the announcement of a second pipeline at a time where EU-Russia relations were at their lowest since the end of the Cold War, caused deep rifts within Europe and across the Atlantic. While the German government has been careful to describe NS2 as a commercial opportunity, Poland and the Baltic states have rejected this narrative and emphasized instead the geopolitical connotation of the project.⁸⁵

⁸² Grigas, Agnia, *The New Geopolitics of Natural Gas*, Cambridge, MA: Harvard University Press, 2017, p. 160.

⁸³ BBC, “Nord Stream Gas Pipeline Opened by Merkel and Medvedev”, 2011, <https://www.bbc.com/news/world-europe-15637244> (10/3/2020).

⁸⁴ Cameron, Fraser, “The Nord Stream Gas Pipeline Project and its Strategic Implications”, *Note requested by the European Parliament’s Committee on Petitions*, 2007, [https://www.europarl.europa.eu/RegData/etudes/note/join/2007/393274/IPOL-PETI_NT\(2007\)393274_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/note/join/2007/393274/IPOL-PETI_NT(2007)393274_EN.pdf) (20/12/2020).

⁸⁵ Lang, Kai-Olaf & Kirsten Westphal, “Nord Stream 2: A Political and Economic Contextualization”, *SWP Research Paper*, 2017, https://www.swp-berlin.org/fileadmin/contents/products/research_papers/2017RP03_Ing_wep.pdf.

The US, for its part, has fervently opposed NS2 since its inception. The Obama Administration stressed that NS2 would tighten Moscow's grip on the European gas market and emphasized that the pipeline, which allows Russia to supply gas to Europe by bypassing Ukraine, would weaken Kiev both economically and politically.⁸⁶ The advent of President Trump only hardened the US stance. On the eve of the 2018 NATO Summit, Trump called Germany a "captive of Russia".⁸⁷ Through the *Countering America's Adversaries Through Sanctions Act*, approved in 2017, the US has imposed sanctions on Russia that affect both its energy sectors and its export pipelines, including NS2.⁸⁸ After frequent warnings,⁸⁹ sanctions were extended also to European companies involved in the project in December 2019, via the *Protecting Europe's Energy Security Act*. American sanctions delayed the completion of the project but also alienated European allies. On 17 October 2020, German Foreign Minister Heiko Maas declared: "we decide on our energy policy and energy supply here in Europe" and added "I assume that Nord Stream 2 will be finished. The question is when".⁹⁰ At this stage, it is difficult to imagine how a 10 billion project can be abandoned when just about 150 km of the pipeline remain to be installed in Danish and German waters.

The impact of US LNG on global and European gas markets

The effectiveness of US energy diplomacy in Europe has long been constrained by the fact that the US, being itself a net natural gas importer, failed to provide European allies with competitive alternatives to Moscow's gas. In this context, the developments on the North American gas market over the last decade have dramatically altered pre-existing equilibria. Ground-breaking technological improvements in horizontal drilling and hydraulic fracturing techniques, coupled with a business environment characterized by

⁸⁶ *Ibid.*

⁸⁷ Mason, Jeff, "Trump Lashes Germany over Gas Pipeline Deal, Calls it Russia's Captive", *Reuters*, 2018, <https://www.reuters.com/article/us-nato-summit-pipeline/trump-lashes-germany-over-gas-pipeline-deal-calls-it-russias-captive-idUSKBN1K10VI> (20/10/2020).

⁸⁸ Loskot-Strachota, Agata, Rafal Bajczuk & Szymon Kardas, "Nord Stream 2 Divides the West", *OSW Commentary*, 273, 2018, <https://www.osw.waw.pl/en/publikacje/osw-commentary/2018-06-18/nord-stream-2-divides-west> (10/10/2020).

⁸⁹ Koch, Moritz, Torsten Riecke & Klaus Stratmann, "How the US Could Halt Nord Stream", *Handelsblatt Today*, 1/07/2019, <https://www.handelsblatt.com/today/politics/secondary-us-sanctions-how-the-us-could-halt-nord-stream-2/23834864.html?ticket=ST-4484433-uO14gBdCZW07dDPiIBWu-ap1> (10/10/2020).

⁹⁰ Afanasiev, Vladimir, "Maas Movement: German Foreign Minister Fires Back at US over Nord Stream 2", *upstream*, 2020, <https://www.upstreamonline.com/production/maas-movement-german-foreign-minister-fires-back-at-us-over-nord-stream-2/2-1-895679> (20/11/2020).

the predominance of private surface land and sophisticated capital markets, have favoured a profound rise in US production of shale gas. Since the mid-2000s, US domestic natural gas production has almost doubled, registering the highest annual amount in 2019, equal to 920.9bcm.⁹¹ Within only a few years, the US has therefore imposed itself as a major actor in the global gas landscape, surpassing Russia in 2011 to become the world's largest natural gas producer, today accounting for almost a quarter of global gas production.⁹²

These dynamics led American policymakers and energy experts to claim that the US should embrace this new source of power to enhance its global leadership and promote its interests in international energy markets.⁹³ Hochstein, special envoy for international energy affairs under President Obama, observed in 2019 that "the United States has transformed into the world's energy superpower⁹⁴" and, on another occasion, suggested that a solution to the Ukrainian crisis could have involved the use of American LNG exports "to free the country from their dependencies".⁹⁵

The Trump Administration replaced the concept of *energy independence* – at the heart US energy policy since Nixon – by *energy dominance*. Under this new doctrine, the US, freed from the vulnerabilities of import dependence, seeks to unleash energy resources on the world stage and benefit from increased exports, both politically and economically.⁹⁶ The 2017 US National Security Strategy openly embraced the concept of

⁹¹ British Petroleum, "BP Statistical Review of World Energy Report", London, 2020.

⁹² *Ibid.*

⁹³ Bordoff, Jason & Akos Losz, "The United States Turns on the Gas", *Foreign Affairs.com*, 2016, <https://www.foreignaffairs.com/articles/2016-03-04/united-states-turns-gas> (22/2/2020); O'Sullivan, Meghan, *Windfall: How the new energy abundance upends global politics and strengthens America's power*, New York: Simon and Schuster, 2017, p. 617.

⁹⁴ Hochstein, Amos, "Testimony before Committee on Foreign Affairs Subcommittee on the Middle East and North Africa and the Committee on Science, Space, and Technology's Subcommittee on Energy", 8/09/2016, <https://www.govinfo.gov/content/pkg/CHRG-114hhr21461/html/CHRG-114hhr21461.htm> (20/12/2020).

⁹⁵ Eaton, Collin, "U.S. Strategy to Free European Energy Markets from Russia's Grip Taking Shape", *Houston Chronicle*, 2016, <http://www.houstonchronicle.com/business/article/US-strategy-to-free-European-energy-markets-from-9146824.php> (20/12/2020).

⁹⁶ Ladislav, Sarah, "Dissecting the Idea of US Energy Dominance", *Oxford Institute for Energy Studies Forum*, Issue 111, 2017, pp. 5-8.

energy dominance and set the objective of using US energy resources to ensure that “allies and partners become more resilient against those that use energy to coerce”.⁹⁷

Unsurprisingly, Europe has been quickly identified as a natural destination for LNG so as to reduce its dependency on Russian gas.⁹⁸ On the other side of the Atlantic, the European Commission 2016 LNG strategy openly recognizes LNG as a tool to end the dependency of certain member states on one gas supply source.⁹⁹ Notably, in a joint statement of July 2018, then Commission President Juncker and President Trump agreed to strengthen EU-US energy strategic cooperation and the EU committed to import more LNG from the US “to diversify and render its energy supply more secure”.¹⁰⁰

However, the biggest impact of the US shale revolution on the European gas market so far has happened without US LNG reaching the European shores. The dramatic surge in US domestic gas production in 2008-2009 redirected LNG previously reserved for the American market to Asia and Europe. In Europe, where gas demand was weak due to the economic recession, new LNG generated oversupply and caused a considerable drop in spot gas prices. The US-generated global gas glut weakened Gazprom’s position in the European market and its market share declined from 30% before the crisis to 23% in 2010.¹⁰¹ Under the pressures of its European customers, Gazprom reviewed gas supply contracts with around 40 clients in the period 2009-2015, providing for the introduction of spot components,¹⁰² the easing of take-or-pay obligations and price discounts.¹⁰³ The price of Russian gas fell on average by 25% compared to pre-crisis levels.¹⁰⁴

⁹⁷ Trump, Donald, “National Security Strategy of the United States of America”, 2017, p. 23, https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf?mod=article_inline (10/12/2020).

⁹⁸ Tsafos, Nicos, “U.S. LNG into Europe After the Trump-Juncker Agreement”, *CSIS Analysis*, 2018, <https://www.csis.org/analysis/us-lng-europe-after-trump-juncker-agreement> (10/03/2020).

⁹⁹ European Commission, “EU Liquefied Natural Gas and Gas Storage Strategy”, https://ec.europa.eu/commission/presscorner/detail/en/MEMO_16_310 (20/12/2020).

¹⁰⁰ European Commission, “Joint U.S.-EU Statement Following President Juncker’s Visit to the White House”, 2018, https://ec.europa.eu/commission/presscorner/detail/en/STATEMENT_18_4687 (10/12/2020).

¹⁰¹ Komlev, Sergei, “European Gas Markets: Myths and Realities”, *Gazprom Exports*, 2017, [https://www.gazprom.com/f/posts/99/838347/european_gas_market-2017-07-05.pdf\(2/05/2020\)](https://www.gazprom.com/f/posts/99/838347/european_gas_market-2017-07-05.pdf(2/05/2020)).

¹⁰² The price of part of the gas sold under a contract was linked to the price of gas traded at EU hubs.

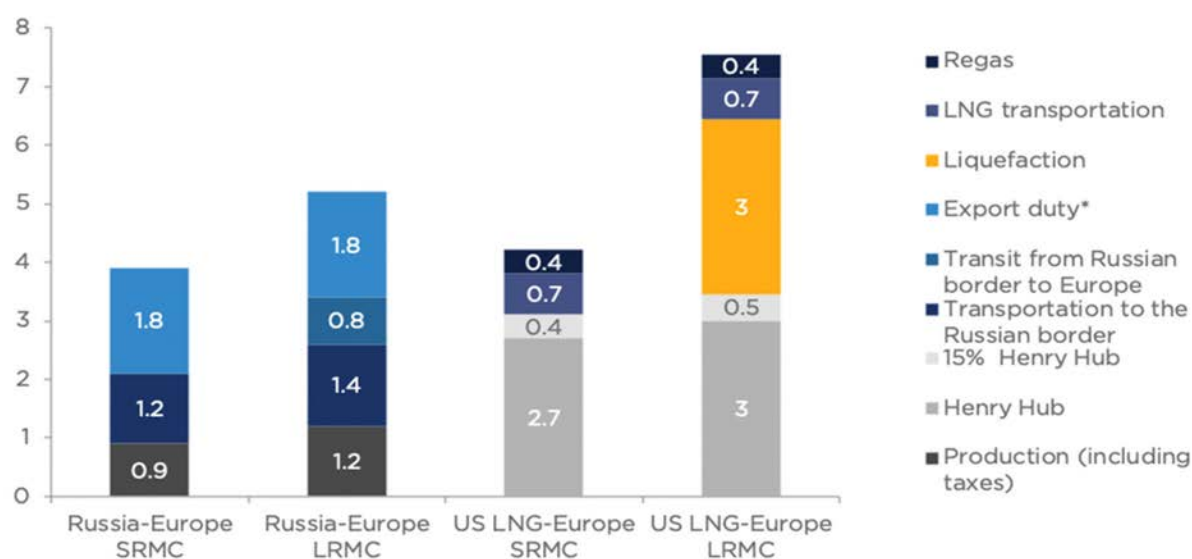
¹⁰³ Boussena, Sadek & Catherine Locatelli, “Gazprom and the Complexity of the EU Gas Market: A Strategy to Define”, *Post-Communist Economies*, 29:4, 2017, pp. 549-564.

¹⁰⁴ Mitrova, Tatiana, Vyacheslav Kulagin & Anna Galkina, “The Transformation of Russia’s Gas Export Policy in Europe”, *Proceedings of the Institution of Civil Engineers-Energy*, 168:1, 2015, pp. 30-40.

The process of liberalization of the EU market and international gas markets dynamics also played a role into the above-mentioned processes. However, it is undoubted that the US domestic surge in production has acted both as a multiplier and as an accelerator.

The indirect impact that the shale revolution had on the European market says little about the effective capacity of US LNG to displace Russian gas sales in Europe. In fact, Gazprom has proved capable of adapting its pricing strategy and its market share rose to a record high of 36.7% in 2018.¹⁰⁵ American LNG can compete only for the part of the European market that is not covered by Gazprom's portfolio of long-term gas supply contracts and for volumes above take-or-pay minimal contractual quantities.¹⁰⁶ In this segment, which equals around 50% of the EU market, competition is based on price. As shown in Figure 3, US LNG tends to be competitive with Russian gas in terms of short-run marginal costs (SRMC). US long-run marginal costs (LRMC) tend instead to be considerably higher.

Figure 3: SRMC and LRMC of Russian pipeline gas and US LNG supplies to Europe



Source: Boersma & Mitrova, *op. cit.*, p. 32.

¹⁰⁵ Soldatkin, Vladimir, "Gazprom Grabs Record Share of Europe Gas Market Despite Challenges", *Reuters*, 2019, <https://www.reuters.com/article/us-russia-gazprom-europe/gazprom-grabs-record-share-of-europe-gas-market-despite-challenges-idUSKCN1QF067> (10/12/2020).

¹⁰⁶ Tim Boersma & Tatiana Mitrova, "The Impact of US LNG on Russia Natural Gas Export Policy", Columbia Center on Global Energy Policy, 2018, https://www.energypolicy.columbia.edu/sites/default/files/pictures/Gazprom%20vs%20US%20LNG_CGEP_Report_121418_2.pdf (10/10/2020).

As acknowledged by several experts, the costs of US LNG has become a proxy for the marginal costs of LNG in Europe and increasingly act as a ceiling for the European gas spot price. Gazprom adapts to US LNG prices while not encouraging the development of new LNG projects that would bring more competition in the long term.¹⁰⁷

Moreover, US LNG exports introduced a set of radical innovations to the LNG industry with an impact on the geopolitics of natural gas.¹⁰⁸ Traditional LNG projects were characterized by long-term oil-linked off-take contracts of usually 20 years,¹⁰⁹ with destination clauses preventing buyers from reselling LNG to a third party. US LNG contracts are instead free of destination clauses and provide buyers with liquefaction services in exchange of a fee, which is independent of the actual purchase of gas.

Since late 2018, when the Asian price premium disappeared,¹¹⁰ Europe has gradually become the main destination for US exports, which in the first semester of 2020 constituted 9.2% of extra-EU gas imports, while Russia's share of total EU imports has declined to 39.3%, compared to 44.7% in 2019. In the same period, the US has supplanted Qatar as the 4th main exporter of natural gas to the EU, with a share of 6.7%.¹¹¹ The mere possibility to import more US LNG gives European purchasers leverage in negotiations with Gazprom and allows them to obtain better prices for contracted gas above take-or-pay levels.¹¹² Building its first LNG terminal in Klaipeda, Lithuania obtained the possibility to import non-Russian gas, notably American, for the first time in history. Six months before the terminal's completion, Gazprom allowed for a significant price discount in the new long-term supply contract with the Baltic country. While global gas markets conditions have certainly

¹⁰⁷ Henderson, James, "Pipeline Gas Versus LNG – Increasing Competition in Europe and Asia", *Natural Gas World*, 2019, <https://www.naturalgasworld.com/pipeline-gas-versus-lng-increasing-competition-in-europe-and-asia-ggp-73560v> (10/09/2020).

¹⁰⁸ Grigas, 2017, *op. cit.*

¹⁰⁹ Meyer, Dustin, "US LNG Accelerates Shifts in the Global Marketplace", *Energy API*, 2019, <https://www.api.org/news-policy-and-issues/blog/2019/04/26/us-lng-accelerates-shifts-in-the-global-marketplace>, (20/04/2020).

¹¹⁰ Zaretsakya, Victoria, "U.S. LNG Exports to Europe Increase Amid Declining Demand and Spot LNG Prices in Asia", *US Energy Information Administration*, 2019, <https://www.eia.gov/todayinenergy/detail.php?id=40213> (30/03/2020).

¹¹¹ Eurostat 2020, *op. cit.*

¹¹² Contract provision that guarantees the seller a minimum or penalty payment if the buyer decides not to purchase the agreed quantity.

contributed to this outcome, the role played by potential American LNG imports in strengthening Lithuania's bargaining position should not be underestimated.¹¹³

Poland is so far the only EU country that declared its intention not to renew the gas supply contract with Gazprom – set to expire in 2022 – and to fill the gap with Norwegian gas and US LNG.¹¹⁴ This threat might constitute both a negotiating strategy to obtain a lower price in the next contract with Gazprom and an attempt to emphasize the Polish closeness to the US. There is little economic rationale in this choice, as it implies higher supply costs for the state-controlled energy company PGNiG.¹¹⁵

Overall, US LNG has strengthened the EU security of gas supply and affected the EU-Russia energy relationship through market-based, supply/demand dynamics. However, one should be careful to assume that LNG trade can be leveraged by US and EU policymakers to expel Russia from Europe's gas market. So far, the amount of US LNG export to Europe has depended more on price differentials between Europe and the US and between Europe and other markets than on a deliberate transatlantic political strategy. Increasing exports can indeed be explained by abundant supply and a shrinking gap between Asian and EU gas prices.

In terms of total costs, US LNG suppliers tend to be on the high end of the global supply curve,¹¹⁶ meaning that they will suffer the most from a prolonged low-price environment. McKinsey predicts that only 10% of the proposed LNG export terminals will be effectively built, due to increasing competition and low gas prices.¹¹⁷ Already during the 2019-2020 winter, many US cargoes directed to Europe sold LNG at a cost that was very close to their operational costs. In light of this, it seems reasonable to assume that US LNG, rather

¹¹³ Grigas 2017, *op. cit.*, p. 130.

¹¹⁴ Easton, Adam, "Poland's PGNiG Requests Talks with Gazprom on Contracted Gas Price", *S&P Global*, 2020, <https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/110220-polands-pgnig-requests-talks-with-gazprom-on-contracted-gas-price> (10/12/2020).

¹¹⁵ Reed, Stanley, "Burned by Russia, Poland Turns to US for Natural Gas and Energy Security", *The New York Times*, 2019, <https://www.nytimes.com/2019/02/26/business/poland-gas-lng-russia-usa.html> (20/03/2020).

¹¹⁶ Biscardini, Giorgio, Anthony Caletka & Christopher Dann, "Tapping the Opportunities of US LNG", *Strategy+Business*, 2019, <https://www.strategy-business.com/article/Tapping-the-opportunities-of-US-liquefied-natural-gas?gko=4d72a> (30/03/2020).

¹¹⁷ Meyer, Gregory, "US LNG Exporters Fight to Survive Supply Gut", *Financial Times*, 2020, <https://www.ft.com/content/a4955606-36ec-11ea-a6d3-9a26f8c3cba4> (30/03/2020).

than flooding the EU gas market, will continue to constitute an important marginal source of gas supply for the EU, which will increase or decrease according to market conditions.

This development has important implications for what US energy diplomacy can achieve in Europe and what the EU can gain from gas trade with the US. US LNG has created a situation of oversupply, where sellers compete for market shares offering the most competitive price. In Europe, Gazprom is no longer a price-setter and needs to adjust to market conditions. Moreover, the innovative features introduced by US LNG in the gas market allow European buyers to increasingly find gas available on the spot, whenever they need it. This commodification of the LNG market, coupled with the legislative action of the European Commission and the investments in gas infrastructures, have significantly strengthened the position of EU gas buyers vis-à-vis Gazprom.

Such a gas landscape is becoming less and less amenable to grand strategies aimed at achieving geopolitical objectives. Gas transactions respond to supply and demand dynamics and LNG is sold on the spot to those who can pay the higher price. Consequently, Gazprom's ability to 'weaponize' gas supplies to achieve geopolitical goals is seriously constrained. However, for the very same reasons, US LNG exports also respond to the logic of the market rather than to the foreign policy ambitions of American and European policymakers. In this context, artificially leveraging US LNG to seriously undermine Russia's position in the EU gas market is very complicated.

Conclusion: US LNG has weakened Gazprom's grip in Europe, but will it remain affordable and burnable?

This paper examined how the American shale revolution and US LNG coming to Europe have reshaped the global gas industry and impacted the EU-Russia gas relationship.

The worsening of Europe-Russia relations and the EU's Eastern enlargement to new members strongly opposing economic and political engagement with Moscow have induced the EU to question its gas dependency on Russia. In Europe, liberal views saw gas trade with Russia as a bridge capable of defusing strategic tensions with Moscow have given way to a more disenchanted and realist attitude, whereby the gas dependency on Russia is increasingly seen as an economic and strategic vulnerability. Since the mid-

2000s, the EU has made diversification of supplier countries and routes a core element of its external energy policy and has found itself engaging in pipeline geopolitics.

Washington – a long-term advocate of Europe’s diversification of gas supply away from Russian gas – has favourably welcomed the EU’s rethinking. Against this backdrop, the emergence of the US as a major natural gas producer and exporter has led to the conviction, on both sides of the Atlantic, that transatlantic gas trade would be mutually beneficial, providing American LNG players with a large export market and EU buyers with an additional and reliable source of gas supply. US LNG export, supported by an enabling economic and political environment, thus played a role in weakening Gazprom’s grip on the EU gas market. Moreover, US gas has changed the well-established rules of the gas business, turning LNG into a commodity that is increasingly traded through short-term arrangements and responds to price incentives.

In this depoliticized gas market, where different suppliers compete for a market share, transatlantic grand schemes to leverage LNG and use it as a strategic weapon to weaken Russia’s influence in Europe risk to fail when confronted with market reality. EU buyers, with very rare exceptions, make their purchasing decisions mainly taking into account the competitiveness of alternative supply options.

These developments have significant implications for the EU and its external energy strategy. Confronted with an increasingly realist energy environment, the EU has throughout the 2000s with mixed success supplemented its liberal toolkit with realist diplomacy to secure its gas supply, and it has increasingly treated gas trade as a geopolitical rather than a market issue. Today, as the market for LNG becomes more liquid, transparent and efficient and gas is increasingly traded as a normal commodity, pipeline geopolitics is no longer needed to secure gas supply. In this competitive and efficient market, the amount of gas purchased from American and Russian suppliers¹¹⁸ depends on the supply choices of European buyers. Consequently, the EU can finally fully adhere to its liberal credo in energy affairs and the Commission can limit itself to play an oversight role, without interfering in business decisions.

¹¹⁸ Other suppliers are not mentioned here since the competition comes down to LNG vs Russian pipeline gas. The other pipeline import sources are effectively at capacity (see Henderson, 2019, *op. cit.*).

It is reasonable to expect that European state-owned energy companies are encouraged by their governments to include limited quantities of US gas in their supply portfolio, if only as a sign of goodwill vis-à-vis the United States. However, American attempts to 'weaponize' LNG risk to backfire and US political pressures to buy more US LNG risk to be perceived in European capitals as the pursuit of domestic political and economic agendas rather than a sign of the sincere desire to contribute to Europe's energy security.

Moreover, the future US LNG exports to Europe will depend as much on the affordability of gas molecules as on its compatibility with climate policies and objectives. EU member states have recently endorsed the Commission objective of cutting EU emissions by 55% by 2030, thus strengthening the credibility of the climate neutrality objective by 2050. While it is difficult to foresee the extent to which natural gas can play a role in implementing the European Green Deal, most studies agree that gas demand in the EU should remain stable or slightly decline until 2030.¹¹⁹ In the power sector, gas suffers from the increasing competitiveness of onshore wind and solar energy and expectations of a 'golden age' for natural gas have been largely revised downwards. The fact that the Commission has recently announced¹²⁰ that gas projects will no longer be eligible for EU support under the Trans-European Networks for Energy regulation indicates that gas will not be central in the EU's decarbonization strategy.

The Trump Administration had scrapped the Obama-era regulations on methane leaks. Methane emissions caused by US fracked gas are already drawing intense scrutiny within Europe, and the EU is considering imposing methane emissions standards for LNG. EU buyers have shown they are no longer willing to turn a blind eye on high levels of flaring and venting in US gas fields. Engie – the French energy company – has recently turned down a proposed \$7b deal with a US LNG supplier over methane leakage concerns associated with gas production. Ireland's government has recently declared that new LNG import terminals are not compatible with the country's carbon neutrality strategy

¹¹⁹ Cătuși, Mihnea, Christian Egenhofer & Milan Elkerbout, "The Future of Gas in Europe: Review of Recent Studies on the Future of Gas", *CEPS Research Report*, https://www.ceps.eu/wp-content/uploads/2019/08/RR2019-03_Future-of-gas-in-Europe.pdf (10/12/2020).

¹²⁰ European Commission, "Proposal for a regulation of the European Parliament and of the Council on Guidelines for Trans-European Energy Infrastructure and Repealing Regulation No 347/2013", https://ec.europa.eu/energy/sites/ener/files/revised_ten-e_regulation_.pdf, (10/12/2020).

and withdrew support for the planned expansion of the Shannon LNG import terminal.¹²¹ The political climate seems to be similar in Germany, where UNIPER gave up on plans to build a new LNG terminal.¹²²

To restore the credibility of US LNG exports, the Biden Administration will need to take the issue of methane emissions very seriously. Imposing new aggressive limits on methane pollution for gas operations is one of Biden key climate pledges. While this measure was intended to meet mainly domestic demands, it has now become central in transatlantic gas trade. A stronger focus on climate objectives in Europe and in the US suggests that in the next decade the main challenge in the gas market will be for gas suppliers to remain affordable and 'burnable'. Abundant supply, weak demand and the increasing competitiveness of renewable substitutes all risk to seriously undermine the geopolitical ambitions of those who still seek to use gas as a strategic weapon.

¹²¹ Elliot, Stuart, "New Blow for US LNG in Europe as Irish Court Quashes Shannon LNG Consents", *SP Global*, <https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/111020-new-blow-for-us-lng-in-europe-as-irish-court-quashes-shannon-lng-consents> (10/12/2020).

¹²² Elliot, Stuart, "Uniper to re-evaluate plans for Wilhelmshaven LNG terminal after tepid interest", *SP Global*, <https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/110620-uniper-to-re-evaluate-plans-for-wilhelmshaven-lng-terminal-after-tepid-interest> (10/12/2020).

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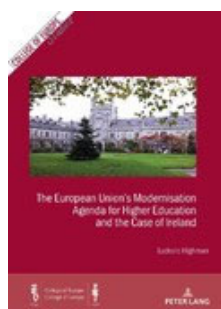
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