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German-Russian Gas Relations: From Cooperation to Conflict

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List of Abbreviations

AALEP	Association of Accredited Public Policy Advocates to the European Union
AfD	<i>Alternative für Deutschland</i> Alternative for Germany
AGEB	<i>Arbeitsgemeinschaft Energiebilanzen</i> Working Group on Energy Balances
BAFA	<i>Bundesamt für Wirtschaft und Ausfuhrkontrolle</i> Federal Office for Economic Affairs and Export Control
BASE	<i>Bundesamt für die Sicherheit der nuklearen Entsorgung</i> German Federal Office for the Safety of Nuclear Waste Management
BDEW	<i>Der Bundesverband der Energie- und Wasserwirtschaft e. V.</i> German Association of Energy and Water Industries
BDI	<i>Bundesverband der Deutschen Industrie</i> Federation of German Industries
BMUV	<i>Bundesministerium für Umwelt, Naturschutz, nukleare Sicherheit und Verbraucherschutz (aktueller Name des Ministeriums)</i> Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (current name of the ministry)
BMWi	<i>Bundesministerium für Wirtschaft und Klimaschutz</i> (since December 2021) Federal Ministry for Economic Affairs and Climate Action <i>Bundesministerium für Wirtschaft und Energie</i> (December 2013-December 2021) Federal Ministry for Economic Affairs and Energy <i>Bundesministerium für Wirtschaft und Technologie</i> (December 2005-December 2013) Federal Ministry of Economics and Technology <i>Bundesministerium für Wirtschaft und Arbeit</i> (December 2002-December 2005) Federal Ministry for Economics and Labour <i>Bundesministerium für Wirtschaft und Technologie</i> (December 1998-December 2002) Federal Ministry for Economics and Technology <i>Bundesministerium für Wirtschaft</i> (1949-1998) Federal Ministry for Economy

BNetzA	<i>Bundesnetzagentur</i> Federal Network Agency
BP	British Petroleum
CAATSA	Countering America’s Adversaries Through Sanctions Act
CAN	Climate Action Network
CCS	Carbon capture and storage
CDU	<i>Christlich Demokratische Union Deutschlands</i> Christian Democratic Union of Germany
CHP	Combined heat and power
CIS	Commonwealth of Independent States
CMEA	Council for Mutual Economic Assistance
CEO	Chief executive officer
CSIS	Center for Strategic and International Studies
CSU	<i>Christlich-Soziale Union in Bayern</i> Christian Social Union in Bavaria
dena	<i>Die Deutsche Energie-Agentur</i> German Energy Agency
DIW	<i>Deutsches Institut für Wirtschaftsforschung</i> German Institute for Economic Research
DUH	<i>Deutsche Umwelthilfe</i> Environmental Action Germany
DV	Dependent variable
EC	European Commission
ENTSOG	European Network of Transmission System Operators for Gas
EP	European Parliament
EPRS	European Parliamentary Research Service
ES	Energy Strategy
ETS	Emissions Trading System
EU	European Union

EWI	<i>Energiewirtschaftliches Institut</i> Institute of Energy Economics
FDP	<i>Die Freie Demokratische Partei</i> Free Democratic Party
FIFA	Fédération Internationale de Football Association
FRG	Federal Republic of Germany
FU Berlin	<i>Freie Universität Berlin</i> Free University of Berlin
GDP	Gross domestic product
GDR	German Democratic Republic
GPIL	German Practice in International Law
GTAI	Germany Trade and Invest
HSE	Higher School of Economics
IASS	Institute for Advanced Sustainability Studies
IE RAS	Institute of Europe of the Russian Academy of Sciences
IEA	International Energy Agency
IEF	International Energy Forum
IV	Independent variable
LNG	Liquefied natural gas
LTC	Long-term contract
MGIMO	Moscow State Institute of International Relations
NATO	North Atlantic Treaty Organization
NCG	NetConnect Germany
NGO	Non-governmental organisation
NS	Nord Stream
NS2	Nord Stream 2
OECD	Organisation for Economic Co-operation and Development
OIES	Oxford Institute for Energy Studies

OPAL	<i>Ostsee-Pipeline-Anbindungsleitung</i>
OPEC	Organization of the Petroleum Exporting Countries
PCA	Partnership and Cooperation Agreement
PEESA	Protecting Europe's Energy Security Act
SED	<i>Sozialistische Einheitspartei Deutschlands</i> Socialist Unity Party of Germany
SPD	<i>Sozialdemokratische Partei Deutschlands</i> Social Democratic Party of Germany
SWIFT	Society for Worldwide Interbank Financial Telecommunications
SWP	<i>Die Stiftung Wissenschaft und Politik</i> German Institute for International and Security Affairs
TANAP	Trans Anatolian Pipeline
TAP	Trans Adriatic Pipeline
TPA	Third Party Access
TTF	Title Transfer Facility
TUM	<i>Technische Universität München</i> Technical University of Munich
U.S.	United States
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
USSR	The Union of Soviet Socialist Republics
WWF	World Wildlife Fund

Abstract

German-Russian relations in the past decades have revolved around trade in natural gas. Germany was the largest buyer of Russian gas in the world. Gas trade between the countries had both political and economic dimensions to it. For many years, Germany pursued close ties to Russia expanding its dependency on Russian gas to over half of its entire gas supply. This changed dramatically with the war in Ukraine that began in early 2022. With the Russian invasion of Ukraine, the German government shifted from a predominantly economically driven foreign energy policy, to a security driven energy policy. Germany now aims to break its dependence on Russian fossil fuels. These political considerations have been reinforced by Germany's decarbonisation and renewable energy policies. This study shows how political and economic dimensions in German-Russian gas relations changed with time. The main argument advanced in this research is the predominance of the political perspective over the economic one in cooperation with states following the path of realism.

Zusammenfassung

Die deutsch-russischen Beziehungen drehten sich in den vergangenen Jahrzehnten um den Handel mit Erdgas. Deutschland war der weltweit größte Abnehmer von russischem Gas. Der Gashandel zwischen den Ländern hatte sowohl politische als auch wirtschaftliche Dimensionen. Deutschland pflegte viele Jahre lang enge Beziehungen zu Russland und baute seine Abhängigkeit von russischem Gas auf über die Hälfte seiner gesamten Gasversorgung aus. Dies änderte sich dramatisch mit dem Krieg in der Ukraine, der Anfang 2022 begann. Mit dem russischen Einmarsch in die Ukraine wechselte die Bundesregierung von der überwiegend wirtschaftlich getriebenen Energieaußenpolitik zu einer sicherheitsorientierten Energiepolitik. Deutschland will nun seine Abhängigkeit von russischen fossilen Brennstoffen beenden. Diese politischen Überlegungen wurden durch die deutsche Dekarbonisierungs- und Erneuerbare-Energien-Politik verstärkt. Dieser Forschungsbeitrag zeigt, wie sich die politischen und wirtschaftlichen Dimensionen der deutsch-russischen Gasbeziehungen im Laufe der Zeit verändert haben. Das Hauptargument, das in diesem Beitrag vorgebracht wird, besteht in der Dominanz der politischen Perspektive gegenüber der wirtschaftlichen in der Zusammenarbeit mit Staaten, die den Weg des Realismus verfolgen.

1. INTRODUCTION

1.1. German-Russian Gas Relations: A Multi-dimensional Perspective

Energy is one of the most debated issues in international relations. The politics of fossil fuel has driven geopolitical and geoeconomic relations for decades. The energy sector has emerged as one of the most important issues for international relations, and as a result has become the subject of both conflict and cooperation at various levels. Gas relations between Germany and Russia were distinguished by their political significance and influence on the international system, occupying a central place in various political and economic developments and even in interstate relations. In terms of bilateral energy relations between the member states of the European Union (EU) and Russia, German-Russian relations were arguably the most significant, as both states are key geostrategic actors in the Eurasian political environment and, as the largest buyer of Russian gas in the world, Germany has taken a central position in the European gas distribution system.

Decades of natural gas cooperation between Germany and Russia were underpinned by infrastructure developments, accompanied by the interdependence of the two economies. The changing context of international energy markets, internal and EU-based regulatory changes, as well as geopolitical developments influenced the structure of German-Russian gas relations. The dissertation attempts to explain the structure of gas relations between Germany and Russia and how it was changed under the influence of geopolitical, security and domestic factors. The study examines the German *Energiewende* and the role devoted to gas within it; changes in the regulatory and commercial framework for gas trading resulting from the EU liberalisation policy; the impact on German-Russian relations of their relations with third parties; political confrontation between the West and Russia, and what these developments meant for gas cooperation between Germany and Russia in different periods of time.

The major factors affecting German-Russian gas relations under this study are the Russian annexation of Crimea and the takeover of parts of two eastern regions of Ukraine by Russian-backed Ukrainian separatists, known as the 2014 Ukrainian crisis, and Russia's massive military invasion of Ukraine, referred to as the 2022 Ukrainian crisis. Prior to these crises, gas disputes between Russia and Ukraine led to several temporary interruptions of gas supply to Europe in the 2000s, putting energy security at the top of the EU's political agenda (Patrahau & Van Geuns 2021: 17-18) and contributing to the

securitisation of gas relations between Germany and Russia. It was these disputes that determined the establishment of a new model of German-Russian energy cooperation defined by the Nord Stream (NS) pipeline network projects (Igbal Guliyev. MGIMO. Author's interview. May 7, 2020). The Ukrainian crisis of 2014 had a negative impact on relations between Germany and Russia along many dimensions, contributing to the politicisation of gas relations. But this impact did not prevent Germany from expanding gas relations with Russia when the parties agreed on the Nord Stream 2 (NS2) project. It was only with the Russian invasion of Ukraine in early 2022 that Germany's conviction in the benefits of its gas cooperation with Russia was shaken, leading to a crisis in relations between the two states. Russian military aggression forced Germany to reorient its energy supply strategy in order to break its energy dependence on Russia. The study shows the different responses the 2014 and the 2022 Ukrainian crises caused.

The NS2 project is at the center of German-Russian gas cooperation in this study. This project is a prime example of how energy and foreign relations tend to reinforce each other in their tendency towards cooperation or conflict (Westphal 2021: 2). This dissertation traces the NS2 gas pipeline project from the idea of its creation to its abandonment. The completion of the research for this dissertation coincided with the Ukrainian crisis of 2022, as a result of which the NS2 project was declared "dead".

Given the liberalised nature of the German gas market, the NS2 pipeline project was classified as a commercial project, ensuring continued EU energy security (e.g. *Bundesregierung* 2019, *Die Bundeskanzlerin* 2020 (a)). Although NS2 was a project agreed between commercial players, it was built in a tense geopolitical context and was even considered one of the most controversial international pipeline projects (Dudek & Piebalgs 2017: 2), demonstrating the close interconnectivity of economic, political and legal issues. This pipeline could have strengthened Moscow's bargaining power by elevating the reliance on Russia as an energy and transportation hub. Strong political opposition to NS2, caused by the Russian military aggression against Ukraine, led to the predominance of political arguments about Russia's perceived political leverage over gas supplies to Europe in the NS2 debate, with the United States (U.S.) and Eastern European countries playing a leading role. The predominance of political arguments in the consideration of the NS2 project required that this study be conducted not only from the point of view of international trade relations, but also of international political relations.

The political pressure on NS2 was exacerbated by the fact that it was a fossil fuel-based infrastructure project. Even before the Russian invasion of Ukraine, Germany was rapidly replacing the cornerstone

of its energy infrastructure. The environmental movement as a powerful political force in Germany influenced the future role of gas in the German energy mix. The concept of energy in politics and public opinion has become increasingly associated with decarbonisation. With regard to security of supply, the energy transition has as much a political as an environmental background. As a successful example of the transition to renewable energy, the largest continental gas market, a major hub and transit country, Germany provides a useful illustration for exploring the relationship between energy transitions and natural gas imports. Germany's decarbonisation policy and the move towards renewable energy are theoretically hindering the country's prospects for international fossil fuel cooperation. Gas cooperation between Germany and Russia thus presented a challenging case of energy relations, and raised an initial research question:

Why despite Germany's energy transition and the political and economic risks associated with gas trade with Russia, did German-Russian gas relations remain stable, and even strengthen between 2009 and 2021?

Following the Russian invasion of Ukraine in early 2022, the argument that interdependence would tie Russia more strongly to Europe shattered and Germany came under intense pressure to reconsider its dependence on Russian fossil fuels. The Russian invasion of Ukraine has had dramatic impacts on German-Russian trade and diplomatic relations. This study was thus confronted with a second important question:

What was different between the Russian invasion of Ukraine in 2014, after which Germany initiated sanctions against Russia but still entered into an agreement with Russia to build the Nord Stream 2 gas pipeline, and the invasion in 2022, after which Germany ended its imports of Russian fossil fuels? Why did the firmly cemented economic interdependence between Germany and Russia collapse?

In this dissertation, gas cooperation between Germany and Russia is analysed in the context of new political and economic realities. The study starts in 2009 with the adoption of the EU Climate and Energy Package, which strengthened the promotion of renewable energy as a distinct element of climate policy in Germany. In this year the EU adopted its third energy package designed to improve the functioning of the internal energy market for the benefit of European consumers. The EU's third energy package had a significant impact on the framework regulating gas relations between Germany and Russia. In 2009, gas disputes between Russia and Ukraine reached a peak, resulting in a short-term gas crisis in Europe. Thus, energy security acquired great political importance. Important changes to the global gas market, including the rapid growth of shale gas production in the United States, also began from this moment.

The dissertation follows a qualitative explanatory approach. By identifying gaps in the existing research, this dissertation offers alternative theoretical and empirical interpretations for gas cooperation between the two states. Many of the issues underlying international energy trade increasingly blur the line between economics and national security. This prompted the researcher to take the unusual approach of referring to two divergent schools of thought in explaining this study. At the macro level, the study takes a neorealist viewpoint, emphasising the nation-state as a unitary actor pursuing geopolitical and security interests in a changing external political environment. Significant attention is paid to the interaction of states in terms of their geopolitical rivalry and balancing efforts. At the micro level, the study turns to a liberal intergovernmentalist approach, with a special emphasis on the domestic process of forming state preferences in the interpretation of interstate relations. The employment of these two diverging theoretical schools increases the explanatory power of the research while retaining its basic fundamental theoretical basis.

1.2. Research Objectives and Hypotheses

The initial puzzle that prompted the researcher to start this study was related to record gas exports from Russia to Germany¹ despite the renewable energy boom in Germany and the complicated political relations between the two states following the 2014 Ukrainian crisis. But the real puzzle of the study came later, when decades of economic interdependence between Germany and Russia suddenly collapsed. This dramatic change required a new way of looking at this study.

There is a strong interconnectedness between political and economic dynamics when it comes to gas relations. This makes the exploration of the national and international dimensions of energy politics so important. In terms of the international dimension, this study considers the national interests of states in relation to security, geopolitical and geoeconomic rivalries. In the national dimension, the influence domestic economic interest groups have on foreign energy policy decisions is put at the center of attention. This study examines strategic interactions between actors at both the domestic and international levels. The study's dependent variable (DV) is natural gas cooperation between Germany and Russia. Four hypotheses are examined.

Hypothesis 1 – Economic Hypothesis:

The stronger the economic rationality underlying international trade cooperation, the more limited is the probability for trade cooperation to be thwarted by political opposition.

¹ For example, in 2018, Gazprom announced a new record of 58.5 bcm gas exports to Germany (Gazprom Export 2021(a)).

This hypothesis is based on commercial realism and emphasises the “business first” principle. It is liberal in nature, albeit with a slight realist bias. The hypothesis highlights the important role of the market in international energy trade and explains German-Russian gas cooperation through an economic rationality lens. With this hypothesis it is argued that politics does not always drive the economy; rather, when economic interests are strong enough, it can overcome strong political tensions. Hypothesis 1 has two independent variables (IVs): the economic rationality of trade cooperation and the political opposition to this cooperation.

Hypothesis 2 – Geopolitical Hypothesis:

The stronger the geopolitical rivalry is in a multipolar world, the stronger the incentive will be for relatively weaker parties to join efforts to counterbalance the power of the strongest party, while rivalry between these cooperating relatively weaker parties is not excluded.

This hypothesis takes a geopolitical view of German-Russian gas trade and is based on the logic of the balance of power in the international system. It emphasises the competitive-cooperative side of international relations. With this hypothesis it is argued that while billed as a commercial project, the NS2 gas pipeline also had a geopolitical dimension. The growing strategic ties between Russia and China opened up the prospect of their joint hegemony in Eurasia, led by China. From the German perspective, the close interaction between Russia and China represented a strategic outcome with potential challenges and risks and encouraged Germany to strengthen Russia’s ties to Europe for security reasons. Germany’s intention to strengthen strategic cooperation with Russia using the NS2 gas pipeline as a tool, could be seen as its rational response to the changing order in the global balance of power, capable of slowing down the pace of Sino-Russian rapprochement and balancing the growing power of China. The intensity of geopolitical rivalry in a multipolar world represents the IV of this hypothesis.

Hypothesis 3 – Domestic Influence Hypothesis:

When the commercial interests of powerful private businesses coincide with the geopolitical or geoeconomic goals of the government, these domestic economic groups will succeed in promoting their own interests in the development of the government’s international trade policy.

With this hypothesis it is argued that the policy influence of domestic interest groups within a country is stronger when their ultimate goal is beneficial to the government. Conversely, in cases where the interests of the domestic group do not overlap with the interests of the government, the former loses its influence over the adoption of appropriate policies. While liberal in nature, this hypothesis also

reflects realist argumentation. Hypothesis 3 can be tied to the ability of the gas business lobby to influence the foreign energy policy of the state in a direction favourable to its own interests. At the same time, it can be used to explain the general harmony that existed between the German government and private gas importers in relation to gas deals with Russia. The IV of this hypothesis is the degree of the overlap between political and commercial interests.

Hypothesis 4 – Interdependence Hypothesis:

When security fears outweigh the economic incentives for cooperation in interdependent relations, even well-cemented interdependent relations can lose their value and collapse.

This hypothesis highlights the importance of trust and a sense of security between players involved in interdependent relations. With this hypothesis it is argued that a sense of security in interdependent relations has a greater value than economic incentives to cooperate. Accordingly, as the sense of security in interdependent relations weakens, the value of economic incentives to cooperate decreases, which may lead to the collapse of these relations. This hypothesis has a realist tenet. It has two IVs: a sense of security between the parties involved in interdependent relations, and economic incentives for cooperation between these parties.

1.3. State of the Art and Research Gaps

German-Russian gas relations, including the NS2 project, are examined in a wide range of scientific works. Here it is argued that while this literature sheds some light on gas cooperation between the two states, it fails to do so comprehensively. Moreover, the collapse of the interdependent economic relationship between Germany and Russia requires explanation. The literature on German-Russian gas relations can be broadly divided into four different types: *political literature*; *economic literature*; *energy security literature*; and *historical literature*.

- *Political literature* makes up the bulk of the research on German-Russian gas cooperation. In the context of the Ukraine factor, the amount of political literature has increased. Using mostly a realist approach, this literature focuses on the role played by states and intergovernmental relations and highlights various aspects of the gas cooperation from a political perspective (e.g. Grant 2011, Shevtsova & Kramer 2013, Meister 2014, Trenin 2018, Riley 2018, Patrahau & Van Geuns 2021, Åslund 2021).

- *Economic literature.* These studies are mainly focused on the economic underpinnings of gas cooperation, while at the same time highlighting some geopolitical elements. Some of the literature pursuing an economic focus goes beyond purely economic aspects; nevertheless, the main emphasis remains on the commercial relationship (e.g. Szabo 2015, Svyatets 2016, Vorobyova 2016, Zachmann 2018).
- *Energy security literature.* These analyses include but are not limited to the issues related to the energy balances of Germany and Europe, the role of gas as a transition fuel, alternative gas supply options, and technical aspects or elements of the regulatory framework of gas cooperation between the EU and Russia (e.g. Gabuev 2011, Esakova 2012, Kopp 2015, Goldthau 2016, Branimir 2016, Trachuk 2016, Sakamoto 2016, Barnes 2017, Sziklai et al. 2020).
- *Historical literature* adopts a mainly political focus. This literature mainly covers the history of relations between Germany and Russia during the Cold War, the establishment of gas relations between the two states, the reunification of Germany and the further development of relations from a political point of view (e.g. Stent 1998, Wallander 1999, Newnham 2002, Högselius 2013, Smirnov 2013, Prochnow 2013, Mogilnikova 2016).

While some studies take a comprehensive approach to the issue, others are case-based. In terms of the dimension of the analysis employed, the literature on German-Russian gas relations can be divided into two groups, those following a *case-specific approach* and those following a more *multidimensional approach*:

- *Case-specific approach.* In some of the literature, German-Russian gas cooperation or, in particular, the NS2 project is part of the investigation but only in connection with other issues that are being examined in-depth. In other cases, the NS2 project is the main focus. Studies on the transit role of a particular country, specific regulatory amendments, and the impact of the energy transition or market liberalisation on cooperation in gas have been conducted (e.g. Branimir 2016, Sakamoto 2016, Berkhahn Blyhammar et al. 2018, Markgren 2018).
- *Multidimensional approach.* In these studies, an attempt is made to analyse the problem from different angles, in many cases revealing a connection between various factors impacting upon gas relations. This kind of multidimensional approach provides a more holistic view on the

issue, but does not always provide an in-depth analysis of a particular element (e.g. Dobrynkin 2008, Smirnov 2013, Dudek & Piebalgs 2017, Bros et al. 2017, Gustafson 2020).

There are many studies of German-Russian gas cooperation, including books, doctoral and master theses, research papers and journal articles. They differ in their approach to the research topic, in the period of data coverage, and in the theoretical frameworks they employ. Here is a summary of some relevant research.

A 2016 study by Andreas Goldthau (2016) shed light on the complex dynamics and multi-faceted aspects associated with the NS2 project, in which the author assessed the geopolitical, regulatory and energy security aspects discussed in the context of the NS2 project. The study suggested that the NS2 project could have enhanced a pro-market push in EU gas markets by boosting market liquidity and increasing the share of gas traded on hubs. At the same time, Goldthau believed that it was “political impetus” that drove Gazprom’s choices of export routes (Goldthau 2016).

Stephen Szabo (2015) defined Germany’s national interests in economic terms. Szabo recognised Germany’s vulnerability to forces beyond the control of its export economy and believed that the business sector played an important role in shaping Germany’s policy towards Russia (Szabo 2015). Supporting the predominance of economic arguments in German-Russian relations, Ekaterina Svyatets (2016) explained the gas relationship between Germany and Russia as linked to a “strong economic rationale” and the two countries’ interest in overcoming geopolitical rivalries and historical enmity. In her analysis, Svyatets showed how geopolitical rivalries and the legacy of World War II between Germany and Russia failed to hinder the development of energy relations between them. The author assessed the NS project as a chance to obtain “unprecedented access to Russian natural gas supply” for Germany, but also noted the impact of the pipeline on reducing the geopolitical influence of transit states (Svyatets 2016).

A research conducted by Aurélie Bros, Tatiana Mitrova and Kirsten Westphal (2017) identified the possible impact of NS2 on increasing liquidity in wholesale markets, fostering competition, and strengthening the futures and spot markets. At the same time, the study noted a prevalence of political over economic factors, since it was politics that determined the legal and regulatory framework, as well as the economic considerations behind gas cooperation between the two countries (Bros et al. 2017). In his comparative analysis of pipeline gas supplies via NS2 and liquefied natural gas (LNG) imports to the EU, Georg Zachmann (2018) concluded that both gas supply options could help

increase the competitiveness of the European gas market. The author however believed that the NS2 project was more beneficial for Russia than for the EU (Zachmann 2018).

In contrast, Irina Patrahau and Lucia van Geuns (2021) did not consider NS2 as a commercially attractive project, but rather as a project with geopolitical implications for the EU and its neighbourhood. The authors viewed the NS2 project as a political dilemma, creating a choice between emphasising political power by imposing sanctions and economic stability by securing supplies. Patrahau and Van Geuns assessed the continued import of Russian gas as a factor weakening the EU's geopolitical influence, while arguing that the interruption of these imports could have direct consequences on citizens (Patrahau & Van Geuns 2021).

Hannes Adomeit's (2012) analysis refers to the "value gap" between Germany and Russia, namely their different internal political systems and foreign policy orientations. Despite their political differences, Adomeit viewed economic relations between Germany and Russia as beneficial. Gas relations between the two states were presented as a product of a joint business based on profit (Adomeit 2012). However, three years later, after the 2014 Ukrainian crisis, Adomeit (2015) gave a new assessment of German-Russian relations, in which he was skeptical about the development of trade relations between the two countries. The author emphasised the consensus in the German government on policy towards Russia and, in general, saw the business sector as being supportive of the government's sanctions against Russia (Adomeit 2015).

Anders Åslund (2021) expressed a geopolitical perspective on the NS2 project, considering it economically impractical, capable of raising supply risk "above the acceptable level". Among other negative impacts, the author suggested that with the implementation of the NS2 project, Russia's dependence on transit states such as Ukraine and Belarus would be limited or even eliminated, which, in turn, could affect the national security of these states, making them politically vulnerable to Russia (Åslund 2021). Alan Riley (2018) was more critical of the NS2 project. Riley argued that the implementation of the NS2 pipeline would lead to the reduced route diversity and pose supply security risk: "The security threat here is not about Russian cutoffs, but the less politically dramatic – though still very serious – risk of putting all energy supply-security eggs in one basket." Riley attributed this view to the negative impact of the implementation of the NS2 pipeline on the operating capacity of the Brotherhood² pipeline network. The author believed that once the Brotherhood pipeline network

² The 4,500-kilometer Brotherhood pipeline, with the actual annual capacity of 27.9 bcm, runs between Urengoy in Siberia (Russia) and Uzhhorod in Western Ukraine. The pipeline was built between 1982 and 1984 for the supply of natural gas from the fields in the north of Western Siberia to the republics of the Union of Soviet Socialist Republics (USSR) and countries of Central and Western Europe. This pipeline is a part of Ukraine's western transit corridor.

ceased to transmit significant gas flows to the EU, the ability of the countries of Central and Eastern Europe to deliver gas by reverse flow would become problematic (Riley 2018).

Conflicting opinions exist. Analysing the problems of energy cooperation between the EU and Russia, Napara (2018) argued that the “excessive securitisation” of the energy sector by the EU was a major obstacle to the development of cooperation between the two parties. Assessing the politicisation of energy relations as unreasonable, Napara believed that any contract that was undesirable to the European leadership on the part of Russian suppliers could be recognised as threatening the EU’s energy security and rejected unilaterally (Napara 2018). A similar view was shared by Neshich Branimir (2016), who believed that the common EU energy policy, which determines the priority of the legal norms developed by the EU bodies to ensure European energy security, acts as a serious obstacle to ensuring the national energy security of individual EU member states. The author argued that the contradictory nature of the energy *acquis communautaire* was the main reason for the emergence of problems in the implementation of large energy projects between individual EU member states and Russia (Branimir 2016).

In her single-case study of Sweden’s position on the NS2 pipeline, Sarah Markgren (2018) sought to answer the question “why a state perceives and responds to a commercial project in a geopolitical manner although the operation is characterized as geoeconomics” and came to the conclusion that it is difficult to distinguish geopolitics and geoeconomics as completely different theories. While an operation may objectively be a clear manifestation of geoeconomics, it does not in itself mean that the target will perceive it and react to it as geoeconomics. Based on this theoretical explanation, with reference to the Ukrainian crisis of 2014, Markgren argued that the NS2 project was geopolitical for Sweden (Markgren 2018).

Several shortcomings in existing studies were identified:

- Much recent literature focuses on the 2014 Ukrainian crisis and its consequences, while the impact of the 2022 Ukrainian crisis on German-Russian gas relations has yet to be systematically explored.
- Balance of power politics and counterbalancing between major global powers are not discussed in depth.

- The literature mainly views German-Russian gas cooperation as a foreign trade issue, but overlooks the domestic dimensions of this cooperation. The phenomenon of influence is practically absent in the analysis.

This dissertation attempts to fill these research gaps by considering three main concepts: economic incentives, geopolitical rivalries, and private economic interest groups. A distinctive feature of this study is its exploration of the linkage between the national and international dimensions of the topic.

1.4. Research Design

This research is structured in ten chapters.

Chapter 1 provides an overview of the research and an introduction to the research framework. This chapter also includes the actual state of research with a categorisation of existing literature, identifies conceptual challenges and research gaps that justify this research.

Chapter 2 is devoted to the theoretical and methodological approach to the research topic. It outlines various aspects of the research problem and identifies conceptual challenges in a theoretical formulation. The theoretical part of the chapter juxtaposes the two dominant approaches to international relations – neorealism and liberal intergovernmentalism, applying them to the external and internal dimensions of German-Russian gas relations. The methodological part of the chapter allows the reader to trace the path that the researcher has taken in the course of this study.

Chapter 3 addresses the key issues underlying this study. The main purpose of this chapter is to outline the motives behind the decisions of Germany and Russia to cooperate and develop their natural gas trade. The chapter begins by describing the evolution of gas cooperation between Germany and Russia and the major turning points in their political and economic relations. This description shows how the linkage between economic and political relations was built in German-Russian gas cooperation. The chapter also discusses natural gas trading from a technical, commercial and political perspective, as well as the different perceptions in Germany and Russia of the gas trade. The chapter concludes with an overview of the NS2 project.

Chapter 4 mainly addresses the phenomenon of influence. The chapter identifies the main actors, both individuals and legal entities, who directly or indirectly influenced gas relations between Germany and Russia. The economic ground for natural gas cooperation between Germany and Russia highlights the important role that commercial actors played. Since this cooperation was also geopolitical in nature, the actors involved also represented a political platform. At the same time, the chapter provides a comparative analysis of internal government structures in both states and allows the building of a linkage between domestic and foreign policy, as well as business and politics.

Chapter 5 explores the impact of Germany's energy transition on its gas relations with Russia. The energy transition is viewed from a triangular perspective bringing in environmental, political and economic aspects. From an environmental perspective, the chapter discusses the impact of the energy transition on the German energy balance, particularly, nuclear, coal and natural gas sectors. The political discussion of the *Energiewende* includes an increased focus on energy security aspects, including efforts to reduce dependence on hydrocarbon imports. The economic view of the *Energiewende* focuses on the commercial implications of the transition to sustainable energies. The chapter concludes with an analysis of the impact of the energy transition on German-Russian gas relations.

Chapter 6 presents an analysis of the EU's influence on German-Russian gas relations as a political and regulatory entity. The major emphasis on this chapter is placed on the impact of EU market regulations arising from its liberalisation efforts on German-Russian gas relations. The chapter, *inter alia*, touches upon the relations between the EU and Russia along political, economic and environmental dimensions; the main legislative documents issued by the EU aimed at the energy trade of member states with Russia; different perceptions of the security of gas supply within the EU; the discussion of the NS2 project in the regulatory context of the EU energy market; as well as the interaction between the EU as an institutional body and Germany with regard to Russian gas supplies.

Chapter 7 aims to help the reader understand the motives for U.S. opposition to the NS2 project and to discuss the extent to which this opposition affected gas relations between Germany and Russia. It discusses U.S. opposition to the NS2 project from political and economic perspectives. The chapter pays particular attention to the balance of power between the United States and Russia, highlighting the geopolitical motives that led the United States to oppose German-Russian gas relations. U.S. shale gas is presented as a game changer and as a competitor to Russian gas in the European gas market. The chapter discusses a comparative analysis of the supply of U.S. LNG and Russian pipeline gas to

Europe, in particular to Germany, and concludes with the assessment of the United States' impact on the NS2 project.

Chapter 8 examines German-Russian gas cooperation from a geopolitical and geoeconomic perspective, while addressing relations with third parties and potential shifts in the balance of power in the international system. The main question being addressed by this chapter is whether the geoeconomic links between Germany and Russia had geopolitical implications. The chapter is mainly based on realist principles and explains the relationship between the two states with consideration of the balance of power in the international political arena. Liberal principles are also touched upon, aimed at ensuring security between Germany and Russia through their interdependent relations.

Chapter 9 aims to analyse the impact of the Ukrainian crises of 2014 and 2022 on German-Russian gas relations. It deals with three crises: the gas crisis that arose as a result of commercial and geopolitical disputes between Russia and Ukraine in the 2000s; the Ukrainian crisis of 2014 – Russian annexation of Crimea and takeover of parts of two eastern regions of Ukraine by Russian-backed Ukrainian separatists; and the Ukrainian crisis of 2022 – Russia's war against Ukraine. The chapter begins with an overview of the gas transit cooperation model between Russia and Ukraine, and then smoothly turns to the “gas war” between them, which escalated into a political crisis and its consequences. The chapter presents a comparative analysis of the impacts of the 2014 and 2022 crises on political and economic relations between Germany and Russia.

Chapter 10 presents the main conclusions of the study. In this chapter, the author returns to the hypotheses to assess their validity. The chapter reflects a discussion of the key findings of this study and the prospects for future research.

2. THEORY AND METHODOLOGY

This chapter explains gas relations between Germany and Russia comparing insights from two opposing theoretical schools – neorealism and liberal intergovernmentalism. These lead to an empirical puzzle due to their opposing views. The theoretical gap that this chapter addresses is related to the understanding of international energy cooperation taking into consideration both internal and external dimensions of policy-making. While the internal dimension suggests the fit of a liberal approach for understanding domestic policy developments and the phenomenon of influence, the external dimension, based on the core concepts of geopolitics and geoeconomics, suggests the importance of the interdependence between Germany and Russia obtained through their energy trade. This could be seen as an effort to establish a new balance of power in the Eurasian political arena; international gas trade serves as an instrument of external balancing of political power. The main argument advanced in this chapter is the importance of the linkage between the domestic and international dimensions of policy-making, as well as a comparative policy approach.

The chapter begins with the comparative analysis of the two diverging theoretical perspectives of realism and liberalism. It then explains the notion of *economic power* and its role in interstate relations. Under a realist view, the study examines the notion of *rivalry* and attempts to theorise geopolitical and geoeconomic rivalries in a multipolar world. The role of power in the international political system and the importance of the balance of power between states and their coalitions are highlighted. The liberal approach, in contrast, emphasises liberal (open) markets and commercial interests as a basis for cooperation, and the role that private actors play in international trade. The notion of *influence* and participation of domestic economic interest groups in international policy formation are highlighted. The study also touches upon both realist and liberal approaches to interdependent relations, and the balance of dependence in these relationships. The concept of *energy security* is also taken up. Different perspectives used to understand energy security are considered and discussed in relation to both realist and liberal approaches to international gas trade.

The methodological part of the chapter allows the reader to trace the path that the researcher followed during the development of this study. It describes data collection and analysis methods for this research, and discusses the challenges faced.

2.1. Theoretical Background

2.1.1. Realism and Liberalism

Studies of security, interstate competition, and geopolitical rivalries tend to follow realist argumentation (e.g. Dodds 2007, Diesen & Wood 2012, Feldman 2012, Shevtsova & Kramer 2013, Diesen 2018, Hellman 2019, Simón et al. 2021). The basic principles of realism are based on the assumption of the state as a unitary actor in the absence of a central world authority able to exercise power over the state³ (Waltz 1979: 118, Donnelly 2004: 30, 52, Antunes & Camisão 2017: 15, Van Hooft & Freyberg-Inan 2019: 56, 70). Realists see the world order as a configuration dominated by leading states, and accordingly, pay significant attention to the criteria of leadership in the global arena. The international system is perceived as a “self-help system” in which states “must build up their power or form alliances to prevent being dominated by others” (Cohn 2016: 29). The attitude towards survival forces the governments to consider not only a state’s absolute dividends, but also the ratio of the relative benefits to be achieved through cooperation with other national counterparts (Grieco 1988: 487). Thus, all states attempt to “manipulate the market” in order to achieve relative gains (Cohn 2016: 29).

The leading realist theorist Kenneth Waltz (1979) defined international relations in terms of the national interests of states, which involves maximising their economic and military power⁴ and securing their future positions (Waltz 1979, 1993: 63). Accordingly, interstate relations are motivated by a desire for power. Waltz’s 1979 contribution to the classical realist approach, called “structural realism” and then “neorealism”, led to a major change in international relations scholarship. This approach differed from the approaches of other realists like Henry Kissinger (1957), Stanley Hoffmann (1965), Hans Morgenthau (1973) or Robert Jervis (1978) in terms of the interpretation of the concept of power and the understanding of states as elements of a system of international relations. Assuming that each state has relative power, Waltz viewed the distribution of capabilities as the only structural variable of significance in the international system (Waltz 1979: 88–104). Thus, the role of the state as a unitary actor is limited by the participation of other actors. Waltz’s arguments are close to Hoffmann’s (1965) view of the international system, suggesting that changes in the constituent units of the international system lead to corresponding changes in the international system, thus, “the

³ In political science, the concept of *state* is abstract (Anter 2014: 9-10), and therefore, its assumption as an actor is general, not specific. The term *state* refers to a set of phenomena that are more pervasive than government. Its meaning is broader than that of government in the sense that the state includes “institutionalized authority, laws, and patterns of domination, including those resting on force, politically manipulated incentives, and reigning ideas.” *Government*, in turn, refers to “agents, differentiated organizations, and rules that are embedded in the state” (Caporaso & Levine 1992: 10).

⁴ The choice between these strategy options depends on the position that the respective state takes in the international system.

international system itself is the outcome of a number of developments many of which originate in the component units” (Hoffmann 1965: 126).

Neorealism retains the logic of a zero-sum game in which an increase in the weight of a state in the global system leads to a decrease in the weight of other states. Unions and coalitions are perceived as temporary measures of struggle against competitors (Savelyeva 2011: 27). Striving to achieve their goals, states undertake defensive strategies. It is Waltz’s neorealism that laid the foundation for the theory of defensive (neo)realism in international relations (Lobell 2017: 1). The anarchist structure of the international system encourages states to maintain a moderate and restrained policy to achieve their security aims. It forces governments to be competitive in order to strengthen their own security (Waltz 1979, Sterling-Folker 2013, Schmidt 2016). Charles L. Glaser (2010) defines defensive realism as states’ ability to adopt cooperative policies under a range of conditions. The author employs defensive realism to address the rational basis of the security dilemma, where states are seen as rational actors who prefer rivalry or cooperation depending on what best supports their interests (Glaser 2010). Defensive realism assumes that strengthening the power of one state leads to the creation of a counterweight coalition by other states (Schmidt 2016: 211). This is what the balance of power is about, which is discussed in the next section.

A realist explanation of energy trade between Germany and Russia is puzzling, since realists assume dependence on other states for imports of strategic goods like energy to be a threat to the national security, especially in the case of imports from non-allied states (Waltz 1979: 155, Cohn 2016: 273). But a realist approach is best suited to highlight the competitive and conflictual side of this study. It helps explain this study from the perspective of balance of power concerns and the strategic importance of the energy sector in interstate relations – trade which is not only commercial but also political.

Despite its contribution to understanding interstate energy relations, the realist approach has some disadvantages in terms of its explanatory power, since it overlooks internal decision-making processes within a state and the existence of subnational actors. The maneuverability of states when making political decisions can be constrained by domestic actors. A particular emphasis on balancing the economic interests of a number of domestic actors in trade policy, challenges the concept of the state as a unitary actor. Unlike realism, a liberal view of international relations focuses attention on the multiplicity of actors, including private companies, trade organisations and lobby groups, and non-governmental entities involved in international policy formation. Among these, the state is the most important, but is still just one of the many actors involved in various processes at the

international political level. The interests and stances of the state are formed in the struggle of various groups, segments of the bureaucracy and political elites (Baykov & Dymova 2017). These coalitions of potentially powerful domestic and transnational actors can have great influence on public policy-making. Under this perspective, states are “arenas for politicking, interest representation, and coalition building” (Krotz 2011: 26).

Transnational economic interchange can influence the gains and losses to individuals and groups. Actors are thus interested in the opportunities for cross-border economic operations. Here the individual and collective behaviour of states is explained by the templates of market incentives for participating in domestic and transnational economic activities. Changes in the structure of the domestic and global economy can change the costs and benefits of transnational economic exchange, creating pressure on domestic governments to promote or block such exchanges through relevant policies. The greater the economic advantages for powerful private actors, the greater their incentive, other things being unchanged, to force governments to promote such transactions.

The liberal view of this study is premised on the theoretical thoughts of the founder of liberal intergovernmentalism, Andrew Moravcsik. Like their realist counterparts, liberal intergovernmentalists perceive states as the major actors in international relations but explore instead how national interests are reconciled in intergovernmental transactions, laying special emphasis on material factors. This approach follows both a liberal line of reasoning with its view on domestic interest groups within a state and a realist approach with its assumption of states playing the pivotal role in international relations. Liberal intergovernmentalists refer to state-society relations. States make their main policy decisions on the basis of their preferences, which represent their domestic economic interests. “Since important acts of international co-operation can induce significant domestic redistribution and institutional disruption, social groups often have an incentive to pressure governments to accommodate their interests” (Moravcsik 2018: 1650).

The employment of the two diverging theoretical schools in this study is deliberate, as they complement each other perfectly in explaining international gas trade. Given the shift from energy geopolitics to energy geoeconomics, realist scholars are increasingly turning to liberal thoughts, while liberal energy policy debates often shift from a commercial focus to security considerations. Despite the fact that liberalism has traditionally been viewed as being in opposition to realism, neoliberalism is based on the ontology of neorealism (Baaz 2002: 121). Theorists whether liberals or realists, at times turn to the opposite point of view in their theoretical explanations. For example, realist Kenneth Waltz (1979) shared with scholars of liberalism the view that non-state actors, and particularly

multinational corporations, are important foreign policy players, casting doubt on the common portrayal of the state as a unitary actor made by realists (Waltz 1979: 138). Liberal scholar Robert Keohane accepts the major principles of realism, viewing states as the principal actors in international relations driven by their self-interests, and also believes in the importance of relative capabilities. Another example is the collaborative work by Robert Keohane and Joseph Nye (2012) highlighting the importance of military power, as is typical for realists (Keohane & Nye 2012: 14). It is worth noting that Keohane was one of the main proponents of reformulating liberalism to bring it closer to a realist view (Baaz 2002: 69).

The major points of view shared by the two diverging schools, such as the recognition of international anarchy, power and national self-interest, the central position of the nation-state, the desire of states for security and economic well-being, are assigned different degrees of importance. These shared views, albeit to varying degrees, have enabled neorealism and liberal intergovernmentalism to be employed in this study. This unusual approach enhances the explanatory power of the study while maintaining its underlying fundamental theoretical foundation.

2.1.2. The Might of Economic Power

The interrelation between politics and economics has been addressed by many scholars (e.g. Gilpin 1987, 2011, Bütte & Milner 2008, Goldthau & Sitter 2015, Cohn 2016). Keohane (1984) believes that “no secure barriers prevent military and security questions from impinging on economic affairs” (Keohane 1984: 18-22). With this statement, Keohane argues for the relationship between political matters related to security and economic issues. Waltz (1979) argued: “All economies work within orders that are politically contrived and maintained. One cannot understand an economy or explain its workings without consideration of the rules that are politically laid down and the economic inequalities that prevail” (Waltz 1979: 141). A supporting argument is suggested by Kirsten Westphal (2014), who believes that market orders follow appropriate political paradigms and considers an “apolitical” market order to be an illusion (Westphal 2014 (a): 41). These arguments point to the importance of an integrated approach to international trade relations that considers both political and economic motives.

In terms of the international political order, a liberal view places its focus on the incentive of states to forge international collaborations. According to liberals, under a condition of anarchy, state

behaviour is based on incentives created by economic exchanges and relevant sets of rules (Keohane 2002: 40). This argument is further reinforced by Edward Mansfield and Helen Milner (2012), who emphasise the tendency of democratic [liberal] governments to sign international agreements. The authors argue that democratic leaders need an external mechanism to assure voters that they have not mismanaged the economy. This mechanism functions more effectively in countries heavily dependent on foreign trade (Mansfield & Milner 2012: 18-24), such as Germany.

The proponents of commercial liberalism extended the “benign view” of classical economists to trade into the political realm (Keohane 2002: 47). Commercial liberalism is mainly concerned with market elements and expounds the interactions between governments and markets. State behaviour is determined by economic motives and explained by patterns of market incentives considering domestic and transnational economic actors (Moravcsik 1997: 515-530; 2010). Liberalism in gas cooperation also mainly focuses on economic elements and assumes cooperation between states to be a positive, absolute-gain factor (Kopp 2015: 60-61).

The role of economic cooperation between states can be considered to be of the highest political significance when economic tools are used to protect national geopolitical and security interests. Waltz (1993) believed that economic capability is the major factor driving great powers and that no other capability, including political and military strength can contribute to a great power status on its own. Economic power is central (Waltz 1993: 50). Holding a similar point of view, Glenn Diesen (2018) believes that political power in the absence of economic power will ultimately lead to a weakening of a state’s political and military power (Diesen 2018: 12-13). State logic by Robert Gilpin (2011) is “to capture and control the process of economic growth and capital accumulation in order to increase the power and economic welfare of the nation” (Gilpin 2011: 81). Colleen Bell (2008) goes further and defines economics as “the continuation of war by other means” (Bell 2008: 330), which emphasises the role of economic decisions in the struggle for power. These arguments point to the increased role of economic power in the global rivalry for overall power (see also: Diesen 2018: 11, Reinhardt & Pronichkin 2018: 96) and highlight the rational, rival, or even selfish nature of states in economic decision-making.

From an economic point of view, the concept of power is associated with dominance in the market and can be reflected in the relationship between the market and the state (Caporaso & Levine 1992: 220). Rational states increasingly rely on economic links, to increase their market power compared to other states (Diesen 2018: 11-12). Economic instruments may eventually give one state the chance

to exert political influence over another state. But this ability depends on the economic potential of the respective state. Accordingly, the projection of a state's economic power, providing it with geostrategic levers, is determined by the state's affordable economic opportunities. This argument increases the weight of international trade cooperation, which can be assessed as rational for the economic development of the state. This leads to the first hypothesis of this dissertation. It is an economic hypothesis that draws on liberal theoretical perspectives, but also contains a slight realist tenet:

The stronger the economic rationality underlying international trade cooperation, the more limited is the probability for trade cooperation to be thwarted by political opposition.

The liberal point of view further strengthens the assumption reflected in the mentioned economic hypothesis. In liberal markets, economic resources are in the hands of economic (private) actors pursuing their own goals and strategies. The power of private actors limits the maneuverability of states to manipulate economic power (Caporaso & Levine 1992: 220, Kundnani 2019: 63). This argument reinforces the assumption that political opposition is unlikely to prevent international trade cooperation based on a strong economic rationale.

2.1.3. Theorising Geopolitical and Geoeconomic Rivalries

The foreign trade policy objectives of international players are based on their weighting of geopolitical and geoeconomic factors. In order to explain the notion of geopolitical rivalry and its relationship to geoeconomics, a brief explanation of the two concepts is needed. Geopolitics refers to the influence of the territorial and specific historical features of states and their geographical position on regional, continental and global international processes. The concept of geopolitics focuses on political relationships influenced by geography (Dodds 2007, Zhiznin 2010, O'Sullivan et al. 2017: 1). Semra Gökmen (2010) defines geopolitics as “the politics generated and applied by dominant powers” (Gökmen 2010: 85), with an emphasis on the importance of the balance of power aspect. In a more elaborate definition, geopolitics is described by Nicole Koenig (2019) as “the study of national foreign policies in light of the global distribution of military and economic resources and the respective power dynamics” (Koenig 2019: 1).

With the increased role of economic means in power politics, Edward Luttwak (1990) employed the concept of geoeconomics describing it as “the admixture of the logic of conflict with the methods of commerce” (Luttwak 1990: 126). The concept of geoeconomics is defined by many scholars in different ways, but all these definitions have a common basis associated with (geo)politics. In Vusal Gasimli’s (2015) definition, geoeconomics is a study of the relationship between economics, geography and politics in an “infinite cone” (Gasimli 2015: 11), which can be interpreted as the endless relationship between these three disciplines within the framework of the concept of geoeconomics. Sanjaya Baru (2012) defines geoeconomics as “the geopolitical consequences of economic phenomenon” or “the economic consequences of geopolitical trends and national power” (Baru 2012: 47). In Diesen’s (2018) definition, geoeconomics is “state intervention in the market to procure a privileged economic position, while the resulting economic instruments of power are utilised to extract political gain” (Diesen 2018: 12).

With the addition of the “geo” aspect, geopolitical strategies are viewed as “geostrategic use of political power” and, accordingly, geoeconomic strategies as “geostrategic use of economic power”. The former is carried out by diplomatic, military, or intelligence means, while the latter aims to control market share, market rules and resources (Baracuhy 2019: 15). Geopolitical interests are associated with the direct or indirect control of territories containing resources, while geoeconomic interests are associated with the management of resources such as exploitation and export, as well as the inclusion of resources in the national economy (Kurecic 2015: 531). Ultimately, geopolitics and geoeconomics pursue the same grand-strategic goal: the geostrategic positioning of states in the international arena. They are both about shaping the strategic environment in which great powers act to pursue their respective interests. Braz Baracuhy (2019) notes the relationship between geostrategic competition among states and the shifts in the international balance of power and that “Geo-economics adds a new dimension to the competitive logic of great-power relations”. Geostrategic competition among great powers occurs whenever any form of economic power relates to a geographically defined goal, such as shaping a new set of rules in a particular region (Baracuhy 2019: 16-24).

The structure of the international economy, in which national economies compete for superiority, turns natural resources into irreplaceable objects of geoeconomic rivalry that occurs between developed dominant states and rival countries (Kurecic 2015: 531). The geoeconomic dominance of one state can be reflected not only in the profits made by that country through its export operations, but also in its control of the corresponding market share, which is particularly relevant for strategic industries, like energy.

The energy industry is strongly influenced by geography. Given the regional nature of gas trade, the “geo” aspect is of great importance in natural gas relations. When considering international gas relations, conceptually different but interrelated geopolitical and geoeconomic aspects are of great significance. Which prevails depends on the relationship of the participating states, as well as several internal and external aspects. In the geopolitical and geoeconomic context, international gas cooperation plays an important role as a tool states use to influence power distributions.

2.1.4. Balance of Power Logic and Balancing a Threat

The balance of power has remained a central concern of the neorealist approach in international relations, since its formulation by Waltz (Rengger 2000: 48). Being the “fundamental feature of politics” (Wohlforth 2016: 36), power is viewed by balance of power theorists as an “attribute of states” (Brown & Ainley 2005: 80-100). The distribution of power in the international system puts some states in a more advantageous position than others, therefore, they have the ability to establish geopolitical rules of the world.

Waltz (2000) argued for the need for a balance of power in the international system: “As nature abhors a vacuum, so international politics abhors unbalanced power” (Waltz 2000: 28). The basis for realist thinking about the balance of power relies on mechanical equilibrium, manifested in realists’ embrace of the idea that there exists a natural balance of power between states of unequal capabilities (Wendt 1999: 246-308, Baaz 2002: 45). The balance of power, from a realist point of view, is reflected in a certain balance among states in the international system that is upheld through links of strategic cooperation between states. This balance means a balance of power not only between states, but also between their coalitions and alliances (Waltz 1979: 131-132, Baaz 2002: 45, Schmidt 2016: 212, Antunes & Camisão 2017: 18). In the latter case, the balance of power has a systemic effect.

Chris Brown and Kirsten Ainley (2005) argue the concept of *balance* is not a suitable metaphor, since it suggests the image of a pair of scales where only two forces are in equilibrium. The authors propose instead the image of a chandelier which keeps its level stable if the weights which are attached to it are distributed in such a way that the forces they exert are in equilibrium. Maintaining balance can be quite difficult. The chandelier departs from its stable level if one of its weights becomes heavier and no compensation is made for this. In the international system, this is analogous to the case of where one state becomes more powerful than others for endogenous reasons. Instability in the chandelier

can occur when two weights move closer to each other without a compensating movement elsewhere. When a closer relationship emerges between two states than existed before, this can result in instability in the larger system. Stability can be restored by either another state increasing its weight, or by two other weights moving closer to each other (Brown & Ainley 2005: 98-101). The argument put forward by Brown and Ainley (2005) is important for understanding geopolitical rivalries in the global arena, since the dynamics of the resilience of a “chandelier” are directly related to the results of rivalries among major powers. The “chandelier” described by the authors is similar to a multipolar world order with different centers of power.

In a multipolar world, rivalry between units of the international system (states) is more complex than in a bipolar world, due to the uncertainty of the comparative capabilities of states, which multiplies with their growing number, and the difficulty of assessing the cohesion and power of their coalitions (Waltz 2000: 6). This assumption may indicate that in a multipolar world, with an increase in the number of powers, rivalry between them becomes more severe. States rationally build relationships of strategic cooperation, in an effort to strengthen their influence in the international political arena. The stability of the international system is determined by the distribution of power among participants. The imbalance of power between states can develop into a confrontation. Realists observe a connection between the absence of conflict and a certain configuration of power that is subject to change and consider that a conflict can arise with changes in the configuration of power (Waltz 1979: 131-132, Wohlforth 2016: 41-42).

This realist assumption was first theorised by Stephen Walt (1987) by modifying the existing balance of power theory. In his balance of threat theory, Walt argues that the alliance behaviour of states is determined by the threat that they perceive from other states. This external threat encourages states to either balance or bandwagon by building alliances. Here balancing implies “allying with others against the prevailing threat”, while bandwagoning refers to “alignment with the source of danger”. Balancing and bandwagoning are defined in terms of capabilities. Balancing means aligning with the weaker side, while bandwagoning with the stronger (Walt 1987: 5-21). These two theoretical arguments about the balance of power and the balance of threat are close to each other. The hallmark of the balance of threat theory is its association with the strongest power’s offensive intentions, which threatens the security of the weaker parties that have joined forces. This study makes more relevant the application of the balance of power theory, which is justified by the economic nature of the partnership between the cooperating parties, Germany and Russia, and the actual absence of a real threat from the strongest party, that is, China.

The international system is dynamic; the relative position of states can change resulting in the need for occasional re-balancing. Randall Schweller (2016) defines a system of a balance of power as “one in which the power held and exercised by states within the system is checked and balanced by the power of others”. In Schweller’s view, when the power of a nation grows to such an extent that it threatens other powerful states, a balancing coalition is needed to restrain the growing power, so that any claim for global hegemony will be self-defeating (Schweller 2016: 1). William Wohlforth (2016) shares a similar view, suggesting that in order to contain the emergence of a dangerous concentration of power, states build up their own capabilities, in an effort to achieve internal balancing. In this regard, they may combine their capabilities with other states. Creating strategic cooperation links leads to external balancing (Wohlforth 2016). Analysing the conditions under which governments tend to create strategic cooperation links, Michael Altfeld (1984) came to the conclusion that at the nation-state level alliances “do not appear to be random but instead follow a definite pattern; i.e., potential alliances which fail to increase both partners’ security levels almost never form” (Altfeld 1984: 538). Altfeld’s argument can also be applied to interstate trade cooperation in a strategically important sector such as gas, which is viewed from a security perspective. William Thompson (2001) argues that relatively strong states tend to perceive more competition than weak states and engage in broader spheres of interaction, but only a limited part of this broader field can generate strategic threats. Even the most powerful states find it ineffective to cope with multiple rivals simultaneously. The author believes that the emergence of new rivals leads states to downgrade old rivalries (Thompson 2001: 561).

If we apply a realist coalition-building approach to external balancing, it can be assumed that the emergence of a new strong rival can bring relatively weaker parties closer to each other in order to counterbalance the growing power of the strongest one. The arguments here underpin the geopolitical hypothesis put forward in this study:

The stronger the geopolitical rivalry is in a multipolar world, the stronger the incentive will be for relatively weaker parties to join efforts to counterbalance the power of the strongest party, while rivalry between these cooperating relatively weaker parties is not excluded.

This hypothesis consists of two parts: the first part reflects the counterbalance of the strongest power by the combined forces of relatively weaker states, and the second part expresses the competitive relationship between the cooperating parties. In this study, this competitive-cooperative relationship is reflected in the economic interdependence of the gas trade between Germany and Russia. The

second part of the hypothesis requires a deeper understanding of competing interests in interdependent relations.

2.1.5. Cooperative and Competing Interests in Interdependent Relations

Interdependence is a key factor underlying the decades of gas cooperation between Germany and Russia. This section enables the reader to better understand the structure of interdependent relations, how these relations are viewed from liberal and realist perspectives, and how asymmetries in interdependent relations can benefit the less dependent party. The latter is important for explaining the competitive side of relationships in interdependent relations.

There is a high level of interdependence between the actors involved in natural gas trade. This is due to the regional nature of the natural gas markets, the inflexible nature of the pipeline business and the high costs associated with the creation of relevant infrastructure. The development of mutual trade contributes to the formation of formal and informal ties, thereby reducing uncertainty in relations. In the case of iterative cooperation between actors, calculating a framework of expectations is simplified. Iterative cooperation leads to the establishment of the basic game rules between the parties (Young 1968: 35, Grieco 1988: 489-505), with a stable effect over time (Axelrod 1981, Radner 1986, Damania & Fredriksson 2000: 315).

Liberalism advances the positive argument that a reliance on economic exchange has a greater effect than many politically proven alternatives to promote peace (Keohane 2002: 40). Economic interdependence, according to the liberal view, contributes to security and stability between the parties involved, since it implies a relationship of mutual dependency, with high opportunity costs associated with a potential breakdown of the relationship (e.g. Park 2018: 23). Interdependence allows partner states to influence each other's behaviour by adapting their goals to each other, thus limiting the range of undesirable behaviour between them. Security and stability within interdependent relations are ensured when mutual interests are accommodated. Satisfying the interests of the other party is necessary to limit competition in an interdependent relationship by the symmetry of dependence, since a zero-sum relationship can lead to a conflict between the parties (Schelling 1980: 3). Thus, interdependent relations make the parties involved extremely sensitive to each other's decisions, which create a necessity for each actor to consider both the actual and potential actions of the other party in its decisions.

Yet, interdependent relations are not always associated with mutually beneficial ones. The ratio between the costs and benefits in interdependent relations depends on the power of the involved actors and the nature of their relations. In order to measure the level of interdependence between players, Keohane and Nye (2012) suggest considering possible outcomes in case of changes in the existing policy framework. This makes it essential considering possible alternatives and the associated costs of adaptation (Keohane & Nye 2012: 8-11). The mixed motives of the parties include both cooperative and competing interests, as a result of which their interaction becomes competitive-cooperative. In this competitive-cooperative bargaining model, the distribution of benefits and losses can vary, depending on the structure of the relationship and the bargaining power of each of the actors (Young 1968: 28-30). This leads to the interdependence hypothesis put forward in this study:

When security fears outweigh the economic incentives for cooperation in interdependent relations, even well-cemented interdependent relations can lose their value and collapse.

This hypothesis follows a realist principle and argues that a sense of security in interdependent relations is more valuable than economic incentives for cooperation. As the sense of security in interdependent relations weakens, the importance of economic incentives to cooperate decreases. The predominance of security fears over economic incentives for cooperation may lead to the collapse of interdependent relations.

The balance between cooperative and competing interests in interdependent relations creates asymmetry in relations between the parties (Young 1968: 28-30). This asymmetry is a “source of power”, which has the potential of political influence (Keohane & Nye. 2012. p.10). A liberal intergovernmental approach suggests that asymmetric interdependence in economic relations tends to favour countries with large domestic markets and economic competitiveness (Moravcsik 2018: 1654).

Based on the theory of Albert Hirschman (1945) about asymmetry in interdependent relations, Diesen (2018) reproduces the realist balance of power logic as the geoeconomic equivalent of the “balance of dependence”. It is in the interests of a more powerful state to maintain interdependent relations in order to strengthen its influence over a weaker partner. The concept of balance of dependence is in many ways similar to the concept of balance of power. Economic interdependence between two states is viewed not only through the prism of balancing economic interdependence, but also in terms of power competition. In this competition of forces, when one side wins in terms of influence, this means that the other side partially loses its autonomy, thus one side prevails over the other (Diesen 2018:

11-15). The party whose power prevails can change the rules of the game in its own favour and extract political concessions from the more dependent party (Thompson 2001: 560). This is in line with the basic principles of realism, as powerful states maintain interdependent relations in order to increase their influence over weaker states (Waltz 2000: 15-16, Diesen 2018: 11-15). For asymmetric economic interdependence to become a political tool, “the cost of the punishment has to exceed the cost of compliance”, which implies the degree and significance of one side’s dependence on the other (Harsem & Claes 2013). To be able to successfully use its economic power in its relations with a counterpart, the economy of the “initiating state” must be stronger than the “target state” and must have a lower percentage of trade with the latter than with others (Newnham 2011: 135). The value of trade can also depend on the subject of trade, for example, energy trade is of great value, as it is very difficult to find substitutes for energy resources.

2.1.6. Power of Economic Interest Groups and Domestic Pressure

Liberal theory is based on a “bottom-up” view of politics in which the demands of individuals and societal groups are viewed analytically prior to making political decisions (Cohn 2016: 113). A liberal conception of domestic politics opens the black box of the state treating it as a representative institution, subject to change as coalitions of social actors change. Robert Putnam’s “two-level game” (1988) clearly demonstrates the interdependence between domestic and foreign policy. According to Putnam’s political model, international agreements are concluded when they are in the interests of domestic interest groups (Putnam 1988). Conducting a broader analysis of this interdependence, Moravcsik (1997) assumes that the individuals and groups within a state are where we need to look to understand the origin of foreign policy decisions. The author asserts that the actors within a state form the state’s behaviour in international politics. In the words of Moravcsik (1997): “States represent some subset of domestic society, on the basis of whose interests state officials define state preferences and act purposively in world politics.” The state is not considered as an actor in the same way as social groups, but as a vehicle, driven by social groups in order to achieve their goals. Moravcsik’s claim that “individuals turn to the state to achieve goals that private behavior is unable to achieve efficiently” emphasises the state’s significant role in addressing various interests about the distribution of scarce resources. This assumption also indicates that the preferences of the state represent the interests of a certain segment of society (Moravcsik 1997: 517-518). In the case of high-level state autonomy, the government develops policies with little or even no influence from domestic interest groups. The easier the access of domestic interest groups to the centers of political power,

and the greater their influence over the adoption of government policies, the lower the level of state autonomy. It is state autonomy that determines the degree of a possible influence of domestic interest groups on national politics (Krotz 2011: 20).

An interest group is defined as any association of individuals or organisations that, on the basis of shared concerns, attempts to influence political decision-making. Since interest groups may seek to influence policy by bringing some kind of “pressure” on politicians, the term “pressure groups” is also used to describe this phenomenon (Roberts 2003: 107). Pressure groups usually are the coalitions of powerful domestic actors, which try to lobby for a foreign policy that meets their interests. “Pressure” by the interest group turns the interests of this group into state preferences. Interest group activities are costly and should be weighed against the benefits obtained (Caporaso & Levine 1992: 144). Proponents of liberalism use the concept of “interest” in its original economic sense. They do not bind it to the state but retain the economic interpretation of interest in relation to individuals and political decision-making groups united by common economic interests (Savelyeva 2011: 27). Groups of economic interests with high potential for economic threats and high organisational capacity are structurally stronger than “weak” interest groups, such as environmental protection groups (Gründinger 2017: 9). Domestic pressure from a dominant interest group can also induce a government to engage in trade cooperation to increase the leader’s political support, thereby impacting domestic political competition (Mansfield & Milner 2012: 14-18).

In his “political process” model, Roger Hilsman (1987) describes the relationship between various power groups in policy development. Hilsman believes that despite various motives of policymakers and various groups that influence policy-making, all of them share some common objectives, which in turn can help in the formation of a consensus (Hilsman 1987). Extending the role of consensus to the external level, Moravcsik (1993) argues that international agreements are impossible without an overlap of interests between the dominant domestic groups dealing with each other. Accordingly, a divergence in interests between dominant domestic groups impedes agreements between or among states (Moravcsik 1993: 487). Expanding on the arguments presented by Hilsman (1987) and Moravcsik (1993), this study hypothesises the interrelation of goals between domestic economic groups and the government, making the former’s influence on the latter successful in the event of the overlap in goals:

When the commercial interests of powerful private businesses coincide with the geopolitical or geoeconomic goals of the government, these domestic economic groups will succeed in promoting their own interests in the development of the government’s international trade policy.

Private commercial entities can be influential players in the international and national political arenas in the formation and implementation of relevant international agreements and national legislation in their own interests (Mosley 2009: 130, Andrade & De Oliveira 2015: 386). Jessica Green (2014) emphasises the “important political function” of private power that can facilitate further action with lasting impact (Green 2014: 169). In some cases, the involvement of private actors is explicitly in the frame of regulatory regimes; in other cases, it includes informal consultations with private actors. This involvement leads to a transition from governance through multilateral, intergovernmental cooperation to governance based on transnational and transgovernmental cooperation (Mosley 2009: 130). The power of the private sector is also highlighted in the study by Tim Büthe and Walter Mattli (2011). The study discusses the ability of the private sector to influence international policy setting (Büthe & Mattli 2011), which limits the regulatory capacity of the government. The argument put forward by the authors is that the formation of international standards implies institutional complementarity between the domestic and international realms.

With survival placed ahead of other goals, private actors seek to gain market power. The success of private actors depends on the strength of their ties with political elites, and on the level of opposition to their policies by domestic social actors (Hocking 1999: 4). Economic interest groups (mainly those reflecting the interests of the private sector) seek to influence governmental foreign economic policies for their own benefits, often requiring “adversarial geo-economic stances” (Luttwak 1990: 19), since these groups view trade and foreign investment as “bread and butter issues” that affect their economic well-being (Cohn 2016: 28). Industries with higher profitability have a greater impetus to form lobby groups and lobby for the industry (Damania & Fredriksson 2000: 315-316). The more benefits private entities receive from international relations, the more pressure they will exert on the government to facilitate these relations.

The potential mobility of factors of production may force the state to take the interests of the production owners into account, since otherwise they may simply leave the jurisdiction of a government that does not suit them (Baykov & Dymova 2017). Barry Buzan et al. (1998) distinguish between two types of securitisation logic that may attempt to elevate companies to the status of reference objects. The first type of securitisation logic is local and concerns the immediate consequences of company bankruptcy for individuals and cities. This encourages relevant actors, including local political structures, to defend the company by assessing its importance from a security standpoint. The second type of securitisation logic is national and concerns the place that a particular company occupies in the industrial base of the state, which, in turn, affects the government’s attitude towards the company (Buzan et al. 1998: 100-101).

The transnationalisation of the global energy market has led to the growing influence of national and multinational companies (De Graaff 2011: 263). Transnationalisation here refers to the growth of interactions and relationships across national borders that cross the divide between the public and private sectors and include at least one non-state actor, as well as political processes and structures that make up a social space that transcends national boundaries. When energy business crosses borders, it turns into diplomacy. Large energy companies are “diplomats”, playing a key role in international relations of their countries. The diplomatic function of the private sector occurs when it acts as “cement” in interstate relations. This desire in turn, comes from the government, which in fact, uses the private sector as an instrument in foreign policy actions. As noted by Andrew Wood (2011), “business diplomacy embraces the conscious and deliberate exercise of influence abroad through business channels, building on a country’s particular advantages” (Wood 2011: 2). Nye and Keohane (1971) argue that strong non-state entities not only become actors in the international political arena, but even are able to compete with nation-states in influencing the course of international events. Accordingly, governments cannot control a large deal of the inter-societal ties of political importance (Nye & Keohane 1971: 330). John Stopford et al. (1991) suggest “New Diplomacy” in a triangular format, which involves in addition to the conventional forms of state-to-state and firm-to-firm bargaining, also state-to-firm bargaining. From a certain point of view, this format demonstrates a power shift in favour of the market (private sector). With this bargaining model, the authors emphasise the power of the private sector and the market, which can play a significant role in the diplomacy of the state they represent (Stopford et al. 1991: 1-31).

The strategic importance of the energy sector brings private energy companies closer to the government, and their large financial weight can impact entire economies. Private companies take on key responsibilities for natural gas projects, including performing the necessary supply and demand calculations, maintaining direct contacts with partner countries, negotiating price and volume terms, and accepting contractual and financial responsibilities. These key responsibilities make private companies one of the major actors in international energy relations.

2.1.7. The Logic behind the Concept of Energy Security

The energy demand in the industry, including military sector, heating, electricity generation and transportation, makes securing energy supply a major factor of national security. Accordingly, energy security is viewed in the political context and considered as one of the key elements shaping interstate

relations. A security approach to energy trading can be linked to a realist view of international relations. From a realist point of view, energy security is strongly influenced by geopolitics. The geopolitical approach to energy security, according to Radu Dudau and Alexandra Catalina Nedelcu (2016), “revolves around the notion of national interests and state-centered foreign policy action, turning energy into an instrument of political influence”, while the market approach relies on economic aspects such as price signals, facilitated international trade, legal rules and norms regulating trade. In a market environment, energy flows and pricing are determined by the unimpeded balance of supply and demand. Accordingly, energy becomes a “commodity”, provided by profit-seeking suppliers. From a market perspective, energy security risk management is similar to portfolio management in capital markets, with portfolio diversification and hedging contracts as risk mitigation tools. Energy trading market mechanisms bring it closer to a liberal paradigm with competitive energy markets. Dudau and Nedelcu conclude that in managing energy security risks, neither the market liberal paradigm, nor the state-oriented realist paradigm have ever been realised in their pure form, but rather have been implemented with a predominance of one of them (Dudau & Nedelcu 2016).

Throughout history, the perceptions of energy security have changed, at different times tending towards more economic, industrial, military or political aspects. There is no single definition of energy security, since it is context-dependent. The omnipresent approach to energy security covers four major dimensions: *availability*, *accessibility*, *affordability* and *acceptability*. The dimension, covering *availability* of resources makes energy security “quantifiable” and refers to resource depletion and the physical availability of resources. *Affordability* refers to economic aspects, while *acceptability* relates to the environmental and social aspects of the concept. *Accessibility* constitutes the geopolitical dimension of energy security; it has been at the center of debates on energy security and policy approaches since the late 20th century. The main issue related to accessibility is the availability of adequate transport infrastructure (Kopp 2015: 47-51). The omnipresent approach to energy security is viewed by some scientists as insufficient to cover the entire framework of energy security. Kacper Szulecki (2018), for instance, supporting the argument suggested by Aleh Cherp and Jessica Jewell (2014), considers this definition of energy security to be close to the concept of energy procurement, emphasising mainly “to secure”, rather than “security.” This approach to energy security brings it closer to the technical aspects of supply security, distancing it from broader security objectives. These technical aspects include technological improvements in order to increase reliability of pipeline systems, rather than political tools to strengthen supply security (Szulecki 2018: 5-11).

In the discussions of energy security issues, energy policy matters usually transform into strategic national policies, which, in turn, creates a potential for securitisation of relations between the involved

states (Heinrich 2018: 62). Roman Reinhardt and Sergei Pronichkin (2018), for instance, define national energy security as an integral part of state security. Consequently, energy policy measures, according to the authors, are aimed at maximising the resilience of the national energy system to both exogenous and endogenous shocks (Reinhardt & Pronichkin 2018: 97).

Robert Skinner (2006) divides the concept of “security of supply” into two aspects – hard and soft. The former refers to the quantitative description of the reliability of supply, such as the volume and price of supplied energy and the latter to psychological factors – a sense of security. The author argues that the sense of security of trade is determined by the “particular political relationship between the trading parties”, which leads to the fact that a country that is completely dependent on imports, still can feel secure, while a country that partially relies on imports, may feel vulnerable. Moreover, the volume of supply and the degree of dependence may remain the same, but the feeling of insecurity may change over time (Skinner 2006: 6). Skinner’s argument points out that the sense of security in a certain energy deal may be influenced by the quality of the political relationships between the players involved.

The variation in perceptions of energy security can be much more complex at the national level. Adrian Dellecker and Thomas Gomart (2011) argue that the national energy security of states depends on a state’s geographical location and domestic policies, as well as its economic and commercial ties with partner states (Dellecker & Gomart 2011: 25). A similar view is shared by Florian Baumann (2008), who defines energy security based on factors like geopolitics, domestic policy, economics, and security policy. The author believes that a combination of economic, political and security measures are needed to ensure necessary synergies (Baumann 2008: 4-5).

The International Energy Agency’s (IEA) Model of Short-term Energy Security, designed to define a comprehensive view of energy security, addresses four dimensions of energy security: *external risks* that cover the risks associated with energy imports; *domestic risks*, associated with the production and distribution of energy within the country; *external resilience*, associated with the ability of diversifying supply sources and routes; and, *domestic resilience*, associated with the ability to respond to supply disruptions domestically (Jewell 2011: 10).

The growing dominance of natural gas as a relatively less polluting fossil fuel (e.g. Speight 2019: 361, Keating 2020) has shifted the concept of energy security in favour of natural gas. International gas trading projects make the players involved interdependent. The roles of interdependent players are usually agreed upon prior to launching a project. A defect in the function of any player in the

chain affects the rest. States bound by a commodity like gas have a mutual interest in assuring political stability and security. Accordingly, states refuse to cooperate closely with those with political instability in the internal or external dimensions.

From the point of view of energy-importing states, the concept of energy security primarily includes the availability of energy resources at affordable prices. As secondary elements, mitigation of energy dependence and diversification of supply infrastructure are considered. Energy security in the view of energy-exporting states is associated with the security of demand, which guarantees continued sales. In order to ensure the security of demand, the exporting state also seeks to diversify its export infrastructure. One of the direct determinants of energy security is the reliability of transport routes. Political instability in transit states or efforts to politicise transit can have a direct impact on the security of supply. Security of transit is directly related to the interests of transit states, and their interest in obtaining maximum profit (financial means or political advantages) for the provision of their transit services. Moving gas through transit states, increases security risks and therefore necessitates close coordination of foreign economic and geopolitical issues tied to these transit states (Stern 2002: 16-17, Zhiznin 2010, Esakova 2012, Kopp 2015: 57-58, Trachuk 2016: 27-28, Amirova-Mammadova 2017, Szulecki 2018).

Markets and governments both play a role in enhancing the security of energy supply. Skinner (2006) argues that while free markets are effective, “they may not necessarily be fully transparent, or deliver a clean environment and (the perception of) security of supply satisfactory to governments and publics”, which requires government intervention (Skinner 2006: 6-7). This is the reason why in some countries the energy sector has trended towards nationalisation, which, in turn, strengthens state interventionism in energy trade issues. Nationalisation patterns differ from state to state, but in almost all cases have political, economic and social reasons (Orazgaliyev 2019: 1). The degree of government intervention in ensuring energy security depends on the presence of external factors that the market fails to consider (Sakamoto 2016: 4). The nationalisation of the energy sector impedes the functioning of economic rules and allows political motives to dominate. Thus, state-owned enterprises can be viewed as actors strongly influenced by the domestic and foreign policies of the state in which they reside. The key economic determinants of supply and demand lose their value when state-owned enterprises become instruments of international power politics (Baumann 2008: 8).

In Western European countries such as Germany, the energy sector is dominated by neo-corporatism, reflecting collaboration between government and interest groups in the development of public policy

(Wilson 1983: 105, Johnsson 1983). For the successful functioning of neo-corporatism, Barry Jones (2001) cites “strong centralized industrial unions, strong centralized employers’ unions, and a state with the right institutional and organizational capacities to manage the national economy but dependent on the cooperation of the so-called ‘social partners’ for their successful mobilization.” The author believes that in the absence of these prerequisites, corporatist mechanisms and strategies may still exist, but they are less efficient from an economic point of view and prone to conflict from a political point of view (Jones 2001: 243). The strength of neo-corporatism lies in strong corporatist ties between government and business. Close collaboration between government, the business sector and trade unions leads to a consensus between them in the modelling and successful implementation of economic policies (Wilson 1983: 113), involving energy security issues.

Since this study is built around the theme of energy security, this section aimed to provide an understanding of the concept of energy security from liberal and realist perspectives, as well as to discuss the role of government and the business sector in ensuring security of energy supply.

2.2. Methodology

Exploring gas relations between Germany and Russia required a qualitative approach as an example of a complex phenomenon. The case study approach is particularly useful to employ when there is a need to conduct in-depth, multi-faceted explorations of complex issues (Baxter & Jack 2008: 544-556). Case study research allows a consideration of how a phenomenon is influenced by the context in which it is located. Robert Yin (1981) especially recommends a case-study approach for research answering “how” and “why” questions (Yin 1981: 100, Steinbacher 2019: 105). As a qualitative case study research, this study employs methods enabling a complex phenomenon to be explored by identifying different factors interacting with each other. This ensured that the problem was not explored through a single lens, but rather through multiple lenses, allowing multiple aspects of the phenomenon to be identified and understood.

Primary data for this study include official documents, including legislation, reports and communications, video statements and public media publications. Official documents were mainly found in the online document archives of EU institutions and on the official internet-resources of the respective governments and ministries. Statistics were mainly drawn from official publications of the governments of Germany and Russia (e.g. official internet-resources of the Chancellor of Germany and the President of Russia, German Federal Ministry for Economic Affairs and Climate Action

(BMWi), German Federal Office for Economic Affairs and Export Control (BAFA)) and the EU (e.g. Eurostat); official publications and annual reports of commercial structures (e.g. Gazprom, Wintershall, Uniper, Nord Stream 2 AG, British Petroleum (BP)) and international organisations (e.g. IEA).

Political research on this topic of a commercial nature was complicated due to the confidentiality of certain information. Confidentiality concerns made it difficult to access commercial or lobbying information. This was compensated to some extent by personal interviews conducted by the researcher, which form the empirical basis of this study. The interviews conducted for this research provided insights into the understanding of the environment that is not always disclosed in official statements and contributed to the multidimensional analysis of the research topic.

Thirty-one semi-structured interviews for the study were conducted between March 2020 and December 2021. The respondents included scientists, government representatives and politicians of the respective states and the EU, business professionals, experts from various energy organisations and research centers specialising in Russia. The dissertation includes a full list with the names of the interviewees and interview dates. The interviews were conducted mainly in video format, which was justified by the restrictions on personal contacts due to the Covid-19 pandemic, as well as the different geographic locations of the interviewer and interviewees. The video format made it possible to maintain face-to-face contact with the respondents with a high quality. Four out of 31 interviews were conducted by telephone and one in writing at the request of the respondents. Figure 1 illustrates the classification of interviewees for this study.

As can be seen from Figure 1, most of the respondents were scientists and energy experts. It is worth noting that some of the interviewees representing this unit were also associated in some way with units that included political and commercial representatives. This made the division between these three units partially blurred. Most of the interviewees were closely involved in research or operations in the area of cooperation involving gas import and export, including those who held leading positions in maintaining gas relations between Germany and Russia. This was critical for the empirical research. The challenging part of the interview process was obtaining permission for interviews from relevant politicians and commercial representatives. But the researcher managed to partially overcome this challenge.

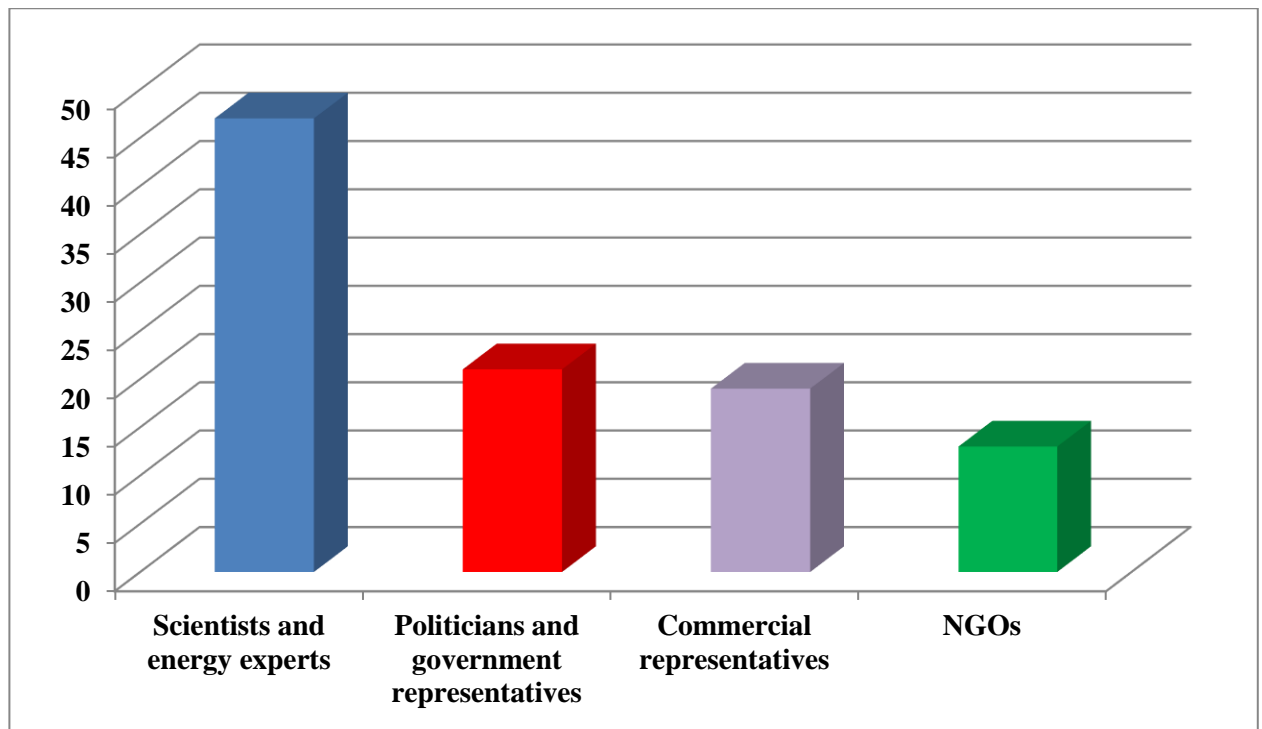


Figure 1. Classification of the interviewees.

The semi-structured interview format allowed for a degree of flexibility and individual approach to the interviews. The main advantages of semi-structured interviews are that they promote a “strong element of discovery,” while at the same time allowing commonalities to be analysed (Gillham 2005: 72). The descriptive feature of the interviews necessitated individual content analysis. The key statements made by each interviewee were identified and coded in order to identify similarities.

The validity and reliability of the data obtained is a concern in many qualitative and especially interview-based studies, because of the uniqueness of each interaction between the researcher and a respondent (Steinbacher 2019: 126). Respondents’ answers during the interviews for this study could have been affected to some extent by bias, as they relied more on their own experience and judgement. Gaining relevant knowledge through primary and secondary data prior to conducting interviews allowed for a more critical assessment of statements during the interview process. The ideological diversity of the interviewees in terms of their political views, as well as their approaches to German-Russian gas relations, contributed to the minimising of possible bias that could affect the overall interview results. Verbatim quotations are used throughout the dissertation to illustrate and reinforce stories. Ethical considerations were respected during the interview process, including the requirement that some interviewees remain anonymous. The researcher also offered the respondents the opportunity to collaborate in interpreting the results of their interviews. The sorted interview data was

provided to the relevant respondents for verification before being coded to avoid communication misunderstandings.

Along with personal interviews, participation in relevant scientific events, including international conferences, webinars and discussions, also contributed to the improvement of the research quality. As part of this research, a grant from the Bavarian Academic Center for Central, Eastern and Southeastern Europe was received for a research stay at St. Petersburg State University of Russia. Due to the Covid-19 pandemic, it was not possible to travel physically to St. Petersburg State University, but the researcher participated in relevant online courses hosted by this university and gained online access to relevant academic resources of the university, as well as the Moscow State Institute of International Relations (MGIMO) and the Higher School of Economics (HSE) University in Moscow. Knowledge of the Russian language allowed the researcher to refer to relevant academic materials published in Russian, as well as to academic and political events in video format held in Russian.

One valuable source for this research was the interdisciplinary PhD Summer School “The Transition towards Sustainable Energy Systems”, co-arranged by the FU Berlin and the University of Oslo in Germany in the summer of 2015. Although the summer school was not focused on German-Russian natural gas cooperation, it covered the investigation of the German Energiewende from multiple academic angles. The empirical evidence from several field trips in the frame of this summer school allowed the researcher to dive deeply into Germany’s energy transition, which is touched upon in this study.

Prior to the start of this research, the researcher participated in the annual Moscow International Oil and Gas Congress and the Caspian International Oil and Gas Conference over the years partially covering the investigation period of this study. This participation allowed the researcher to trace the development of Russia’s gas exports to Europe and exchange views with relevant scientists, representatives of business and politics. Over the years of studying the dissertation topic, research progress was presented at various academic events, including: IPPEAN Conference, organised by the Institute for Public Policy and Economic Analysis on June 10-13, 2015 in New York, the United States; IAEE Energy Forum (Second Quarter 2016), organised by the International Association for Energy Economics; The 3rd HAEE Conference “Energy Transition: European and Global Perspectives”, organised by the Hellenic Association for Energy Economics on May 3-5, 2018 in Athens, Greece. The researcher also took part as an expert in a webinar on the topic “The Russia-Ukraine Conflict: Threat to Peace, Security and Energy Supply?” organised by the Bavarian School

of Public Policy on February 24, 2022, to discuss Germany's energy security in connection with the 2022 Ukrainian crisis.

Findings presented in this research were completed at the Bavarian School of Public Policy at the Technical University of Munich, while the researcher was affiliated with the FU Berlin at the beginning of this study. Throughout the study, the researcher was actively involved in scientific activities conducted by both institutions, which allowed the researcher to look at this study from different angles and thus, to strengthen arguments.

3. BACKGROUND

This chapter traces the development of political-economic linkages related to trade in natural gas between Germany and Russia. The main aim of this chapter is to sketch the motives behind both states' decisions to cooperate and develop natural gas trade. The chapter presents natural gas trading from a technical, commercial and political perspective. Looking at the natural gas trade from different angles sheds light on different elements of the natural gas cooperation between Germany and Russia of the period up until 2022. The different perceptions in Germany and Russia of the gas trade are also highlighted. The chapter provides an overview of the role of natural gas in the German energy balance and the development of the German gas market. The chapter concludes with a discussion of the NS2 project.

3.1. Political-Economic Linkages between Germany and Russia

3.1.1. Politics of the Cold War. Germany-Russia-Germany Triangle

During the years that have become to be known as the Cold War, Germany found itself at the center of rivalry between the two world co-hegemony, the Union of Soviet Socialist Republics (USSR) and the United States. The Federal Republic of Germany (FRG or West Germany) focused on the development of its economy, leaving military and many diplomatic issues to the United States (Szabo 2015: 4). The United States, Britain and France maintained control over the security politics of the FRG. They also retained veto power over domestic legislation if it had any impact on their status (Lewis 2001: 4). Some rights of the Four Powers over Germany were valid even until October 2, 1990, and ceased to exist only in connection with the reunification of Germany (Newnham 2002: 113).

When Germany was divided, and about 400,000 Soviet troops were stationed in the German Democratic Republic (GDR or East Germany), both East and West Germany were in a weak position, that is, in an asymmetrical relationship with the USSR (Stent 1998: 9-13). Relations between the USSR and the FRG were tense, confrontational, and even militarised. The Soviet Bloc, with its strong military was perceived by Western powers as a direct threat, and this of course was reflected in political relations between the FRG and the USSR. For about a decade after World War II, the FRG

and the USSR had almost no diplomatic relations (Newnham 2002: 120). With very limited formal cooperation, their first trade agreement was signed only in 1958 (*German Eastern Business Association* 2020).

Being the First Chancellor of the FRG, Konrad Adenauer was a co-founder and the first leader of the Christian Democratic Union (CDU). Under Adenauer's chancellorship the FRG followed an integration policy to the West (*Westintegration*), and became embedded into the Western chain of political, economic and military institutions. It pursued a "policy of strength" towards the USSR, which was strongly opposed by the Social Democratic Party (SPD) of the FRG (Lewis 2001: 5-7). Adenauer attempted to construct political-economic linkages with the USSR. By providing economic benefits to the USSR, Adenauer aimed to gain political concessions from it, and in particular, he hoped for reunification. While not successful in this aim, the Adenauer government was able to win Soviet flexibility on several political issues despite continued strained relations (Newnham 2002). Under the leadership of his successors, Chancellors Ludwig Erhard and Kurt Georg Kiesinger, relations between the FRG and the USSR continued to be characterised by confrontation and tension (Lewis 2001: 8-9, Gustafson 2020: 73-74).

At the same time, the FRG retained a high interest in relations with the GDR, which made it politically more attractive for the USSR. Therefore, a well-thought-out policy towards the FRG, allowing the USSR to realise its Western security perspectives, was of great significance for the latter. The prevention of all intra-German relations with the maintenance of their ties through the USSR enabled it to manipulate the GDR and induce the FRG into a special relationship with the USSR (Stent 1998: 9-13).

A thawing in the confrontational relationship between the two countries started with Chancellor Willy Brandt's *Ostpolitik*, initiated in 1969. As a "confidence-building measure" (*German Eastern Business Association* 2020), *Ostpolitik* was intended to improve the FRG's cooperation ties with the USSR and other Warsaw Pact countries. The main goal of this policy was explained by Willy Brandt's political secretary and key foreign-policy advisor, creator of the *Ostpolitik*, Egon Bahr, as achieving positive "change through rapprochement" (*Wandel durch Annäherung*). Soviet interest in German technology provided a helpful background and reciprocity for the development of this politics. *Ostpolitik* pursued the ultimate goal of overcoming the confrontation of the Cold War and the division of Germany, through measured steps of establishing economic and cultural relations with the communist East (Shevtsova & Kramer 2012, Forsberg 2016: 21-22, Yoder 2017: 195). An indirect, but not less

important intention of the *Ostpolitik* was finding a solution to the energy problems of the FRG (Shevtsova & Kramer 2012: 113).

For the FRG, one of the positive aspects of gas cooperation with the USSR was the diversification of energy supply sources from the Organization of the Petroleum Exporting Countries (OPEC) members due to the oil crisis and the embargo. Accordingly, gas relations with the USSR served to reduce possible levers of pressure from the OPEC countries, ensuring greater stability in energy relations (Mogilnikova 2016: 65-66). A gas contract was achieved between the parties when the Foreign Office agreed to a 20 percent share for Soviet gas in the West German market (*German Eastern Business Association* 2020). This was the first major event in Brandt's *Ostpolitik* and laid the foundation for the political framework of gas deals between modern reunited Germany and Russia. The first gas deal served as an "economic icebreaker" that brought relations between the FRG and the USSR into a phase of relative quiescence (Gustafson 2020: 75-79, *German Eastern Business Association* 2020).

Willy Brandt was the first Social Democrat Chancellor of Germany since 1930. It is in his foreign policy approach that one can find the roots of closeness between the SPD and Russia. His interest in reestablishing contacts with the USSR corresponded to the interests of Soviet leader Leonid Brezhnev. Brezhnev was interested in economic cooperation with the West (McMillan 1996: 43) in order to mitigate the economic downturn in the country. Following the reestablishment of relations between the FRG and the USSR in the 1970s, Soviet trade with the West gained in importance.

Brandt's successor, Helmut Schmidt, who served as Chancellor between 1974 and 1982, was largely Western-oriented in his foreign policy and did not prioritise improving relations with the USSR. Soviet invasion of Afghanistan during Schmidt's chancellorship also worsened the relationship between the two parties for some time (Lewis 2001: 10-13). Helmut Kohl, who served both as the last Chancellor of the FRG and the first Chancellor of reunited Germany, contributed to fundamental changes such as the end of the Cold War and Germany's reunification. Kohl's foreign policy approach was close to the policies of his predecessor Schmidt. Kohl (2004) admitted: "In matters of foreign policy, there were only the smallest of differences between Helmut Schmidt and me." (Kohl 2004: 387 (translated by the author)). Achieving a political and military balance between the USSR and the FRG was a major component of the two chancellors' policies (Feldman 2012: 36).

In contrast to the situation in the West, in the GDR, the Socialist Unity Party of Germany (*Sozialistische Einheitspartei Deutschlands* – SED) sought to achieve absolute power through its hierarchical political structure. The SED was led by Walter Ulbricht, who had close ties with

Moscow. Ulbricht's successor, Erich Honecker, who led the GDR between 1971 and 1989, was an ideological communist. During Honecker's leadership, the SED was further strengthened and the links between the GDR and the USSR were consolidated. Domestic political and economic issues in the GDR were kept in the hands of the SED. Candidates for the government positions were determined on the basis of their "ideological reliability" (Lewis 2001: 62-74).

This section outlined the differences in the post-war development of West and East Germany, and the attempts to overcome the complex political relations in the Germany-Russia-Germany triangle. At the next stage, the study discusses how political-economic linkages were built in these relations.

3.1.2. Political-Economic Linkages in Energy Cooperation

Gas deals between the FRG and (Soviet) Russia in the frame of the *Ostpolitik* paved the way for further developments in their political relations. But the two states had completely divergent approaches to many fundamental industrial issues, such as resource allocation, pricing and costing, and risk management. While Soviet gas leaders were represented by bureaucrats who were in charge of certain sectors and were subordinate to their "political bosses," German gas leaders were represented by business figures. The Kremlin's involvement in all gas deals between the two countries added a political dimension to their gas relationship (Gustafson 2020: 20, *German Eastern Business Association* 2020).

The energy policy of the USSR was an important part of its planned economy, and a backbone of its military and economic successes. The main path to ensuring economic development was exploitation of its many natural resources. Hindering this development was the reality that its energy sector suffered from a lack of technological innovation. In May 1969, the USSR Foreign Affairs Minister Andrei Gromyko offered the FRG a new model of economic cooperation that would require the supply of large-diameter pipes to the USSR (Shevtsova & Kramer 2012: 113-114, Bros et al. 2017: 12, *Gazprom* n.d.). Soviet leader Brezhnev, who arranged "a special secret channel of communication between Moscow and West Berlin" (Shevtsova & Kramer 2012: 114) fully supported the idea. The deal was simple – pipes and equipment from the FRG in exchange for gas supplies from the USSR. With both countries taking a step forward, on February 1, 1970 the USSR and the FRG signed a grand agreement "gas for pipes" (*Erdgas-Röhren-Geschäft*), including the supply of 3 billion cubic meters

(bcm) of natural gas per year from the USSR to the FRG and delivery of large-diameter pipes from the FRG to the USSR (*Gazprom* n.d.).

With regard to gas deals between the USSR and the GDR, Verbundnetz Gas started to receive Russian gas on May 1, 1973, based on an intergovernmental agreement signed in 1968. This relationship continued until 1989 in exchange for the construction of units and the supply of equipment and pipes for the construction of Soviet gas pipelines (*Gazprom* n.d.).

By the 1970s, the gas industry had taken front and center in the Soviet economy and had become a symbol of national pride and prestige. Exploration, development, and distribution of gas were centralised under the Ministry of Gas Industry (Bros et al. 2017: 6, Gustafson 2020). The USSR viewed energy exports as a way to increase much-needed hard currency revenues and as a diplomatic strategy aimed at the West (Perovic 2009: 2). The natural gas pipeline laid from Western Siberia to the FRG helped the USSR in expanding supplies to Western countries. U.S. government fears that Europe could grow too dependent on Soviet gas supplies prompted it to try to halt the initiative. It however failed to do so (Goldman 2010, Bros et al. 2017: 12, Gustafson 2020: 164-165). An agreement, linking together Deutsche Bank, Ruhrgas and Gazprom's predecessor Soyuzgazexport was realised. As noted by Bros et al. (2017), "Besides complementary economic structures and interests as well as the integrated gas infrastructure, the cooperation between the USSR/Russia and West Europe built upon matching market structures and corresponding business models. The market structures matched perfectly." (Bros et al. 2017: 14). The wording of the agreement as well as the business model were developed to maintain long-term and stable relations between the parties. This agreement also prompted other European states to cooperate with the USSR by joining German infrastructure suppliers and diversifying their sources of supply in order to reduce their import dependence on the Netherlands and the Middle East. Even prior to the beginning of gas deliveries from the USSR to the FRG in October 1973 (Bros et al. 2017: 12-15), the states signed an agreement on further increasing gas supplies. In 1974 and 1979 the sides signed similar agreements and in November 1981, Soyuzgazexport and Ruhrgas inked a fourth contract on the delivery of an additional 8 bcm of gas per year to the FRG between 1984 and 2008 (*Gazprom* n.d.). This testified to the continued interest of these parties in gas cooperation. Unlike other gas suppliers to Europe, the major goal pursued by the USSR with its gas exports to Germany was its desire to gain market share. This desire prompted the USSR to agree to lower prices than either Norway or Algeria asked for the sale of natural gas (Grant 2011: 88-91).

The deals between the two previously opposing sides – the USSR and the FRG – were beneficial for both parties. The USSR obtained Western currency and technology. The FRG, in turn, could benefit from the lower gas prices offered by the USSR compared to other suppliers. It also could expand its export market (Bros et al. 2017: 13, *German Eastern Business Association* 2020). The USSR and the FRG further strengthened ties with a scientific and technological partnership on gas. The participation of German experts, including construction workers and pipeline engineers was necessary for the construction and development of big gas projects in the USSR. This was also evidenced by the Orenburg and Yamburg Agreements signed respectively in 1974 and in 1986 between the USSR and the GDR. The Orenburg agreement was signed on the participation of construction workers and pipeline engineers from East Germany and other member countries of the Council for Mutual Economic Assistance (CMEA) in the development of the Orenburgskoye field and the construction of the Orenburg - USSR Western Border gas trunk-line, which was later named Soyuz. The Yamburg Agreement was on the joint development of the Yamburgskoye field, according to which until 1989, Verbundnetz Gas received Russian gas in exchange for the construction and delivery of equipment and pipes from East Germany, in particular, for the construction of the Yamburg - USSR Western Border gas trunk-line (*Gazprom* n.d.).

Between the 1970s and the 1990s, gas trade between the two sides developed further, receiving political backing on both sides. Bros et al. (2017) view these trade relations as an “example of geopolitical motivation and less about the bilateral relationship, which was based on pragmatism with win-win logic for both sides” (Bros et al. 2017: 6-15). The USSR intended to further develop its energy infrastructure, as exports to the larger market areas were significant for the development of the Soviet natural gas industry. European gas markets became increasingly interconnected between Germany and other states such as France, Austria and Italy.

In this process, the FRG not only gradually became a reliable partner for the USSR, it even occasionally lobbied for Soviet interests in the North Atlantic Treaty Organization (NATO) alliance (Shevtsova & Kramer 2012: 114) to improve ties with the USSR. Gas cooperation between the USSR and the FRG led to the strengthening of relations between them, and the parties entered into contractual agreements on the supply of natural gas. This gas trading model was based on long-term contracts (LTCs), with oil-indexed prices, for the time duration of 20, 25, or 30 years, with a minimum obligation to take or pay 75-85 percent. These long-term bonds between the two states were of political and commercial importance. With the growth of trade, personal links between trading companies strengthened. The increased volume of traded gas resulted in the building up of an integrated natural gas infrastructure. By meeting its contract obligations to supply natural gas to

Germany, the USSR (particularly Russia) earned the status of a reliable energy partner (Bros et al. 2017: 14-15), which led to stability and continuity in gas relations between the two parties.

3.1.3. New Geopolitical Era and Energy Cooperation between the “Newly Minted” States

The new economic and political reforms called “perestroika” (new thinking) carried out in the USSR under the leadership of Mikhail Gorbachev were unsuccessful (Boettke 1992, Slater 1996: 5-6, Newnham 2002, Shevtsova 2010: 14, Van Hooft & Freyberg-Inan 2019: 56), which significantly weakened the economy of the state. The existence of an internal crisis distracted the USSR from focusing directly on foreign policy. The failure of the Gorbachev administration to establish a successful policy towards Germany together with a growing domestic economic crisis and internal political problems within the country resulted in some loss of relative Soviet power vis-à-vis both East and West Germany. Shortly after the USSR lost influence over the Warsaw Pact and with the fall of the Berlin Wall, the Gorbachev administration was forced to accept Germany’s reunification (Stent 1998: 75, 97). Despite several challenges⁵, on October 3, 1990, Germany officially reunited with further Western integration. Promises of German economic aid to Moscow was an important factor making the reunification of Germany possible. Given its own economic and political crisis, the USSR was in no position to veto developments. With its powerful economy, the reunited Germany could offer the USSR special relations, which would pave the way for a long-term political partnership and restore the USSR’s lost prestige (Stent 1998: 124, Newnham 2002: 35).

Meanwhile, other socialist countries in Central and Eastern Europe abandoned socialism and non-Russian Soviet republics sought independence. Angela Stent (1998) likened this process with a “domino effect”. She compared the quick imposition of socialism which happened between 1945 and 1949, and a similar kind of “domino” collapse effect after 1989, with one country following another in distancing itself from the Soviet Union (Stent 1998: 82). The desire for independence in Kazakhstan (e.g. Tyan & Thompson 2022), Georgia (e.g. Bakradze 2019), Azerbaijan (e.g. Mehdiyev 2022) and Lithuania (e.g. Īvāns 2021) was met with the bloodshed of civilians by Soviet forces, the most brutal case of which took place in the Azerbaijani capital Baku in January 1990 (Clemens 2000: 121-123) by 26,000 invading Soviet troops (*Human Rights House Foundation* 2005). These events

⁵ The reunification process was not smooth, rather it created many challenges. Domestically these challenges involved transfer of a huge amount of money to the East, budget deficits, and growing inflation. Externally there was initial resistance from Russia, the United Kingdom and France (Feldman 2012: 44).

provoked mass movements against the Soviet leadership and ultimately accelerated the collapse of the USSR.

The collapse of the USSR and the dissolution of the Warsaw Pact changed the Eurasian geopolitical landscape. Former Warsaw Pact states, those that were either a part of the Soviet Bloc or former USSR republics, were abruptly redefined as being a part of Eastern Europe. The emergence of several new independent states desiring to gain their own political status redefined Eurasian energy markets and opened opportunities for diversification of energy supplies and routes. Some former Soviet states began competing with Russia in energy trade with the West.

The early 1990s saw an important turning point in relations between Germany and Russia. The most important distinguishing element from the past was the loss of the USSR's status as an empire. The reunification of Germany also changed its semi-sovereign status. With its growing role in global political and economic institutions, the enlarged Germany emerged as an even more influential European power and continued to pursue interdependence in its relations with Russia. A further distinguishing element from the past was Russia's transition to a market economy. This led to some complications in the country's international economic cooperation. In the Soviet period, energy prices were dictated by the centralised economy, not by market mechanisms. The collapse of the USSR transformed its socialist economic principles and ushered in market and price mechanisms. In this changed environment, Germany and Russia faced each other as two new states, with completely new borders. Past *Ostpolitik* goals lost their sense. Both sides began restructuring their relations with Eastern and Central Europe, with Germany in a strengthened position and with a better chance of expanding its presence (Stent 1998: 195-204). In order to ensure security in many respects, the countries between Germany and Russia were interested in integrating into existing Western institutions, which ultimately made them closer to Germany.

After the reunification of Germany, Russia's foreign policy interests in Germany increased (Stent 1998: 148). Moscow faced a huge state budget deficit and was struggling with its post-communist transitional economy⁶; Germany invested more government money in Russia's post-socialist transition than any other Western country and Berlin aided Moscow in securing support from international financial institutions and the Western community. This helped to make Russia more responsive to Western influence (Stent 1998: 157-159, Shevtsova 2010: 16).

⁶ The key macroeconomic indicators were very poor. Whereas inflation rate in 1997 was 11 percent, a year later, in 1998 it raised to 84.4 percent. Falling oil prices on international markets had a major impact on the Russian economy, already hit by the Asian financial crisis. As a result of the severe economic crisis, in August 1998, the Russian Government and the Central Bank declared default (St. Petersburg State University 2020).

The Soviet economy lacked a profit-oriented mindset that required a new commercial approach. After Soyuzgazexport was replaced by Gazprom in 1989, the oil and gas sector became the main vehicle for addressing economic transformation of Russia, which made international cooperation in the oil and gas sector more important. During the post-Soviet/post-reunification period, bilateral energy dialogues between Germany and Russia enlarged and deepened (Bros et al. 2017: 16). It was namely gas diplomacy and the decisive role of Gazprom and Ruhrgas (with financial support from the Deutsche Bank) that determined the course of energy relations between Germany and Russia in this period of time (Shevtsova & Kramer 2012: 114). In 1990, Russia provided 40 percent of Germany's natural gas supplies (Stent 1998: 178). In the early 1990s a strategic partnership between the two sides was proclaimed (Bros et al. 2017: 5). In volume terms, Russian gas supplies to Germany increased from 1.1 bcm in 1973 to 25.7 bcm in 1993 (Sullivan 2022).

But energy cooperation between the parties proved complex. A fall in Russian energy production after the collapse of the USSR added to Russia's woes. Russian authorities threatened to cut off gas supplies to Germany when Gazprom demanded higher prices for gas sold to the eastern part of the country. A compromise was reached after the visit of the German Economy Minister to Russia, and the sides agreed on an acceptable gas price. Energy negotiations between the two states were complicated by the fact that in the 1990s there were many actors in Russia's foreign policy, each pursuing its own goals. This made the dialogue between Germany and Russia challenging (Stent 1998: 178-180).

A turning point in relations between Germany and Russia in the 1990s was associated with the shift from a political to a commercial and business orientation covering the entire value chain. This led to vertically integrated bilateral monopolies. The integration of the East German gas market into the northwestern European gas market was another major change (Bros et al. 2017: 15). In 1990, a joint venture between Gazprom and Wintershall – WIEH was established in Germany, and in 1993 – a joint venture Wingas formed. Its main activities involved trade, transportation, storage and sale of natural gas in various European countries. It is also worth noting the construction of the MIDAL-STEAL, WEDAL and JAGAL gas pipeline systems through the joint efforts of Gazprom and Wintershall. Later, in 2003, Achimgaz, a joint venture between Gazprom and Wintershall, was established to develop the Urengoy gas field (Igbal Guliyev. MGIMO. Author's interview. May 7, 2020).

Chancellor Gerhard Schröder who was in office from 1998 to 2005, together with the Foreign Affairs Minister Joschka Fischer, reassessed German foreign policy, while maintaining the core values

developed by his predecessors. Lilia Shevtsova and David Kramer (2012) considered Schröder's Russia policy to be a continuation of Brand's *Ostpolitik*, at the same time portraying it as a "close partnership based on common interests and total rejection of the normative approach" (Shevtsova & Kramer 2012: 112). Lily Gardner Feldman (2012) viewed Schröder's domestic and foreign policy as pragmatic, presenting Germany as a great power in Europe that confidently pursued its national interests (Feldman 2012: 50-51). Schröder's chancellorship coincided with major energy developments at the EU level, which required a new way of thinking in respect to the gas industry (Gustafson 2020: 233).

The role of the former Foreign Affairs Minister of Germany Frank-Walter Steinmeier, who later became Federal German President, was important in German-Russian relations. Being a member of the SPD, Steinmeier served as a Minister for Foreign Affairs between 2005 and 2009 (from 2007 to 2009 also as a Vice-Chancellor), as well as 2013 and 2017. Steinmeier worked closely with Schröder during his tenure, which most likely, along with his membership in the SPD, influenced his view of Russia, which, in turn, was preserved during his tenure under the Merkel government. Stefan Meister (2014) noted that Steinmeier favoured a "conciliatory" approach to Russia and saw policy towards Eastern Europe – as a "key strategic priority" (Meister 2014: 5). Steinmeier is not an ideological supporter of Russian domestic and foreign politics, but one who recognised the importance of relations with Russia. It was Steinmeier who designed the concept of "growing closer by interweaving" and initiated the Partnership for Modernisation of Germany, which ultimately became part of the EU's agenda for Russia. Shevtsova and Kramer (2012) see the Partnership for Modernisation in a certain sense as a continuation of the previously carried out *Ostpolitik*, but with modified goals towards Russia (Shevtsova & Kramer 2012: 114).

In an interview for this study, Claus Bergschneider (2020), former Gazprom Germania Chief Representative, opined that the relationship between Germany and Russia was completely different from Russia's relations with other states. Bergschneider believes that in addition to the material advantages of gas relations with Germany, Russia was always interested in social relations with Germany (Claus Bergschneider. Former Gazprom Germania Chief Representative. Author's interview. September 3, 2020). Close commercial collaboration based on relevant policy developments, along with improved social ties, created a solid foundation for the development of energy infrastructure between Germany and Russia.

3.2. Natural Gas Trade – Technical, Commercial and Political Points of View

Natural gas is a gaseous fossil fuel that is found either alone or in association with crude oil. There is no single component composition that can be regarded as a standard for natural gas; from different sources it can have different compositions. Although it is commonly combined with other fossil fuels and energy sources, there are many features of natural gas that make it unique (Speight 2019: 3, 25, 99). Natural gas burns cleaner than other fossil fuels because it contains less carbon. This environmental aspect of natural gas has increased interest in its use as an important source of energy. The flexibility brought to the energy system by natural gas makes it also suitable as a complement to variable renewable energy sources such as intermittent energy supplies from wind and solar power generations (Speight 2007, 2019). Natural gas is convenient as a household fuel and can be used to generate electricity, and also as a raw material in the chemical industry (Arentsen & Künneke 2003: 4, Kandiyoti 2015: 37, Azakov 2018: 4, *BMW* n.d. (a) & (b)).

The use of natural gas in industry was first implemented in the 1830s in the United States, and in Europe in the 1850s in Azerbaijan (Hajizadeh 2001: 13-14). Gasification in Europe began to develop in the 1950s with the discovery of large gas fields in northern Spain, France, the Netherlands, Germany, Poland, Romania and Austria, and later in the British sector of the North Sea, as well as in Norway, which, along with Soviet gas supplies led to the rapid development of the European gas industry (Hajizadeh 2001: 24-25).

The concept of natural gas production includes exploration, drilling, production, pre-processing and collection of gas from wellheads, as well as its delivery to the terminal for injection into the pipeline. Transportation of commercial gas is carried out via high-pressure pipelines. The gas in the piping should be maintained at the proper pressure. A series of compressor stations along the pipeline transport high pressure “pipeline quality” natural gas through the main gas pipeline to distribution networks. Here, gas is delivered via low-pressure pipelines to the market or to end consumers. The capacity of transport pipelines, defined as the maximum annual throughput, is calculated on the basis of their diameter and pressure (Nazarov 2015 (a): 17-18).

The extraction and transportation of natural gas is a complex and expensive process. Before developing a natural gas field, the producer must be sure of the corresponding demand for the extracted gas. Companies building long-distance pipelines must be sure of manufacturers’ guarantees with regard to an appropriate volume of production that can justify the cost of building these pipelines, as well as customer purchase guarantees (Grant 2011: 59-60). Natural gas is compressed, piped and

delivered directly from the producer to the consumer. The direct delivery of natural gas to the customer's "gate" binds the customer and the owner/operator of the pipeline. Gas pipelines require special safety measures, since a possible rupture is catastrophic in the case of natural gas transportation. Strict safety measures, in turn, add more to the expense of gas pipeline construction. A company that undertakes the construction of a pipeline must follow specific regulatory norms in order to bring the technical characteristics of the pipeline in line with economic expectations (Kandiyoti 2008: 14-15). The difference between the direct and indirect costs associated with the extraction and exploitation of gas depends on the conditions of the country in which production takes place and therefore, has an endogenous nature. Added to this are the costs associated with the transportation of gas to the point of consumption. The selling price, that is, the final price for the relevant product, is an exogenous variable as it changes in accordance with the conditions in the world market (Safir 2020: 5). The process of commercial negotiations is complicated by various factors, including not only the coordination of gas prices and volumes, but also other important issues that reflect the realities of the market (Esakova 2012: 41).

The construction and maintenance of onshore natural gas pipelines is more cost-effective compared to offshore ones (Esakova 2012: 62). The economic efficiency of pipelines is higher over short distances. Behind each route of existing or planned pipelines are the geopolitical and economic interests of respective states, as well as the commercial interests of large transnational companies (Branimir 2016: 20). The complexity and high cost of long-distance gas infrastructure means the favouring of a single major project launched by competent players connecting specific reservoirs to specific markets. Parties who have agreed on a specific transport project and the associated significant costs aim to achieve maximum return on their investments. After a pipeline has been constructed, there is little incentive to invest in competitive projects as they will not be economically feasible (Grant 2011: 59-60).

While it is also possible to ship gas by tanker, this requires liquefaction of the gas, adding to costs. LNG is pressurised and cooled to very low (-162 °C) temperatures. Liquefied gas takes up less space, but liquefying gas typically results in a loss of about 10 percent of the fuel (Hirth 2022: 7). This makes delivery by a tanker over long distances more expensive. But LNG has its own advantages. Unlike pipeline gas trade, which is linked to geographical aspects and is contracted primarily under LTCs, LNG can be traded between continents on a short-term, price-driven basis. This feature allows LNG to increasingly gain positions in markets traditionally supplied by pipeline gas. The existence of LNG trade contributes to competitiveness in the gas markets and increases the security of supply (Bergschneider 2017: 53).

Several factors, including the geographical distribution of natural gas reserves and the distance factor between supplying and consuming states, have led to the creation of regionally segmented markets. Gas trade is regional in nature, which promotes the development of economic ties between those who are geographically closest to each other. The global gas market is divided into the European/Eurasian, the Asian, and the North American markets, each of which are subject to different pricing regimes. At different levels of production and consumption, specific pricing models and market structures are adopted in each of these regions. The differences among these market structures, as well as their poor integration have impeded the formation of a global gas market (Amirova-Mammadova 2018: 2).

The liberalisation of key natural gas markets decoupled pricing from oil as the key energy source, although its influence continues to exist. Since the bulk of cross-border natural gas supplies are carried out through pipelines, natural gas prices formed at the trading points (hubs) are subject to greater regional influence. The opportunity for producers to exert influence on the price is much greater without LTCs and price formulas with base periods. This is all the more true if the delivery point must move from the border to the hub. Then the producer can replace its own production with a purchase in the hub, if the prices are less attractive (Bergschneider 2017: 67).

The global energy system is largely driven by the activities of leading energy companies and their cooperation patterns. From the commercial point of view, markets work best without simulated constraints or incentives for supply and demand. Assuming the feature of commercial markets, based on economic principles, the major driving force of the market is the dynamics between supply and demand. However, in the case of commodities that differ in their national significance, such as gas, the factors affecting supply and demand, as well as the conditions under which these dynamics are manifested, are highly political in nature (Goldthau & Sitter 2015). Timothy Lehmann (2017) argues about the relationship between the world political order and the global energy system and believes that political order is determined by and visible in “energy and alliance patterns” (Lehmann 2017: 4). Because of its impact on both national security and economic development, gas is among the most highly politicised commodities. For governments, energy is tied to both security and economic interests, internal as well as external. In many cases, aspects of energy, economics and security are linked. The politicisation of gas deals is more visible in the case of large exporters: “large energy exporters must also think politically rather than only economically” (Christof van Agt. IEF. Author’s interview. March 19, 2020). Partial or full government ownership of the energy sector provides governments with security and predictability in this strategically important sector. Furthermore, the extraction of natural gas resources from remote areas with difficult physical access and its further transportation are not always technically, legally and financially feasible. This leads to a low level of

impetus for private energy companies to engage in the natural gas business. This factor contributed to the strengthening of the role of states and state-owned entities in shaping the world natural gas trade structure (Amirova-Mammadova 2018: 2).

Governments are responsible for the formation of a legal framework for commercial activity that serves their national interests. This fact distinguishes international gas commerce from other commercial industries. International energy trade is usually handled with the involvement of supranational powers and transnational structures, which increases its politicisation. Through national energy policies, governments can significantly stimulate or, conversely, prevent the use of a certain type of energy. Yet, given the importance of the industry to the overall economy, governments tend to be influenced by economic considerations. The degree of political involvement in international energy trade depends on several factors such as the internal regime, the structure of the national economy, the role assigned to the energy sector, and the relationships with counterparts and relevant external actors.

3.3. A German Perspective on Natural Gas Trading

3.3.1. Historical Development of the German Gas Market

The German gas industry has its roots in the coal mining industry (Dickel 2014: 95). The first German gas works began in 1825 in Hannover. By 1870, 340 gas works were operational in the country; gas for use in towns was produced from coal, wood, and peat (Speight 2007: 121). For more than 150 years, the German gas industry focused on town gas and coke oven gas (Mez 2003: 213).

The discovery of the Groningen gas field in the Netherlands in 1959 had a great impact on the European energy landscape. Groningen paved the way for the European offshore and onshore hydrocarbon exploration and the shift from expensive town gas, generated from coal to natural gas (Whaley 2009, Kopp 2015: 181). In just a few years, the natural gas reserves in Europe increased from a few billion cubic meters to trillions (Gustafson 2020: 25). As described by Thane Gustafson (2020): “For the first time, Europe had a world-class gas field, large enough to support exports and cheap enough to compete with coal.” (Gustafson 2020: 26). The Netherlands, followed by other West European states, created a commercial and regulatory model for the gas industry, which is still sometimes referred to as the “Groningen model”. This traditional model was only changed in the last

two decades, with the emergence of computerised trading technologies and new EU market structure rules (Gustafson 2020: 26). Prior to the beginning of gas imports from the Netherlands in 1963 (Kopp 2015: 181, Gustafson 2020: 33), the role of natural gas in Germany was limited to industrial purposes and, to a small extent, electricity generation (Kopp 2015: 181). At first, gas imports from the Netherlands faced strong resistance and were perceived as a form of “foreign infiltration” (*Überfremdung*). There were media campaigns “against the invader”. From a political point of view, Dutch gas was perceived as a possible threat to the coal industry, the cornerstone of the German energy sector. A fear of energy dependence on Dutch gas bubbled up (Gustafson 2020: 33-34).

The gas from the Groningen field had a calorific value twice as high as town gas. As a result, Germany began to adapt its infrastructure for the use of natural gas. Groningen gas plus some increased domestic production transformed the German gas industry. New gas transmission companies were created (Kopp 2015: 181). Gas imports from the Netherlands led to the replacement of fuel oil with natural gas in the 1960s given the competitiveness of the gas industry (Dickel 2014: 95). At the head of the West German gas network development for that period of time stood Ruhrgas AG, founded in 1926, which took advantage of the close proximity of its network to the Netherlands. Some big production companies decided to create their own gas transmission networks in order to obtain more control over the developing market (Kopp 2015: 182).

Natural gas proved extremely popular, the growing market demand for natural gas led to a gas boom. This was a bottom-up growth, where national and local governments played the role of facilitators, not drivers. At that time, in Western Europe there was no comprehensive vision for the entire continental integration of the gas network or any existing authority that could realise it. The growth of the European gas industry was determined by the “invisible conceptual structure” – contract system between sellers and buyers, backed by an “emerging legal structure”, on the basis of which gas was traded. Gustafson (2020) believes that the contract system created a certain degree of unity that compensated for the decentralisation of the industry at that time. Thus, long before the physical interconnection through pipelines in the European gas industry, there was an interconnection through the structure of contracts which coordinated the distribution of risks between different players (Gustafson 2020: 33-34).

After East and West Germany’s reunification, gas companies took immediate action to expand the gas industry in the new regions (*Länder*), to transfer all installations from town gas to natural gas and to upgrade existing plants and pipelines. The process of conversion from town gas was fully completed in 1995 (Mez 2003: 216). In the 1990s there was a large expansion of gas transport

infrastructure to and within Germany (Bros et al. 2017: 16). German gas companies built, financed, maintained and operated a fully equipped pipeline system, meeting their purchase and supply obligations (Mez 2003: 220). Private regional monopolies with close ties to the government entered into contracts with each other to “demarcate their territories” and were tasked with ensuring the security of supplies (Grätz 2009: 71).

From its early stages, the German natural gas industry had a three-tier structure, which consisted of importing companies, municipal utilities (*Stadtwerke*)/regional gas companies, and end-consumers. In this three-tier structure, distributors were dependent on network operators, and transmission system operators, in turn, were dependent on the large companies controlling natural gas production and import. The first tier was represented by six large producing and five importing companies that sold gas to the second tier, represented by 10 regional transmission companies. Gas from these transmission companies was then sold to around 700 regional and municipal distribution companies. This distinguished the German gas market from other national EU gas markets, which were dominated by a single state monopoly company (Kopp 2015: 183-184, Bros et al. 2017: 17).

As a part of the EU integrated gas market, the German gas market has been required to adopt EU rules and regulations, including the Directive 1998 (Directive 98/30/EC), the Internal Market Packages of 2003 (Directive 2003/55/EC) and 2009 (2009/73/EC). The third energy package made significant changes to the organisational structure of the German gas market. Ownership unbundling came into effect as the preferred model. Antitrust enforcement and the cancellation of destination clauses in LTCs stimulated short-term deals and made the market more competitive. These regulatory changes altered the “mode and logics of transactions, their scope, frequency and time-frame” (Westphal 2014 (a): 36). At the time of the dissertation submission, Germany also complied with the EU Regulation 2017/1938 on measures to safeguard the security of gas supply of October 25, 2017.

Initial liberalisation efforts encouraged utilities from other member states to enter the German market, leading to the vertical integration of German regional monopolies in the 1990s and large-scale mergers at the turn of the millennium. The mergers, as in the case of E.ON and Ruhrgas (2003), were politically supported, based on the goal of creating “national champions”. The “national champions” were expected to “prevent hostile takeovers” and allow German companies to enter other regional and international electricity and gas markets. This trend led to the perception of energy supply security as a “national business issue” in Germany (Grätz 2009: 71).

With the introduction of the two-contract model, the German gas market became more transparent. Along with the gradual reduction of market areas, the model boosted trading activity. E.ON Ruhrgas was the first market player to support short-term trading. Distributors were given the opportunity to purchase and sell gas at special prices offered by E.ON Ruhrgas within a short-time frame in a “Day Ahead Choice market”. The prices offered by E.ON Ruhrgas reflected the market price on a particular day. The commercial actions taken by distributors were dependent on the price of gas on that particular day. Thus, the choice market was perceived as a “useful instrument for market stipulation”. Realising that the new network access system would lead to increased short-term trading in the medium term, E.ON began to prepare for the development of its gas hubs in order to gain a “first mover advantage” (Kopp 2015: 208).

In connection with the shift to sustainable energy sources, a sharp increase in subsidies for renewable energy sources led to a drop in wholesale electricity prices, which in turn made the operation of traditional gas and coal-fired power plants commercially impractical. This trend led leading German energy companies such as E.ON and RWE to suspend or shut down thousands of megawatts of conventional gas and coal power capacity. Norwegian utility Statkraft also stopped the operation of two gas-fired power plants in Germany that were suffering losses (*Reuters* 2013). At the same time, 26 new plants were constructed in the 2010s and annual total natural gas fired production increased from 53.6 terawatt-hours (TWh) to 72.3 TWh (Jarvis et al. 2019: 9).

Since the end of 2008, gas agreements based on LTCs have come under pressure. This was due to a decrease in prices⁷ at European gas hubs as a result of the decrease in gas demand caused by the economic downturn in Europe, as well as a surplus of LNG in regional markets (Stern & Rogers 2011: 8, Kopp 2015: 196). Large German importers tied to LTCs were forced to offer their “expensively-acquired gas volumes” on the spot market, usually at prices up to 33 percent lower than the purchase price. Faced with considerable commercial losses between 2010 and 2012, E.ON and RWE entered into arbitration over the pricing terms of their LTCs. E.ON managed to successfully renegotiate its LTCs with Gazprom. The out-of-court settlement reached between the parties included “a retroactive adaption of pricing conditions for the price review since Q4/2010” and had an impact of “about EUR 1 billion on E.ON’s half-year results of 2012”. Compared to E.ON, RWE found it more difficult to renegotiate with Gazprom. But ultimately the attempts were successful and resulted in the reimbursement of payments made since May 2010 and the adjustment of the purchase price formula under the contract by introducing gas market indexation. When revising gas supply contracts

⁷ By comparison, in 2010 average daily spot market prices in Northwest Europe were 25 percent below oil pegged prices (Kopp 2015: 196).

with E.ON, RWE, its German ventures WIEH and Wingas, as well as other EU companies such as GDF and ENI, Gazprom was obliged to pay a total of around €2.5 billion as retroactive payments (Kopp 2015: 196-197).

The second largest supplier of gas to Europe after Gazprom, Norway's Statoil moved to price flexibility, selling more than 40 percent (for the end of 2012) of its European gas at spot prices. Statoil's gas deal, based on spot prices with Germany's Wintershall for a 10-year period, challenged Gazprom, which strongly insisted on pegging prices to oil (Adomaitis 2012). In the event of further insistence on pegging prices to oil, Gazprom risked losing its market share; this ultimately forced the gas giant to make concessions on pricing.

Since 2011, the German gas market had two dual-quality market areas: *NetConnect Germany* (NCG) in western and southern Germany and *Gaspool* in northern and eastern Germany (*BnetzA* n.d.). This was achieved as a result of reducing the number of market areas from 19 to two in order to increase market liquidity. Each of these areas had its own coordinator responsible for the efficiency of market activity and access to the gas network (*BMWi* n.d. (a), *IEA* 2020 (a): 151). Gaspool was the main destination for Russian gas that entered Germany via NS and operated as a physical hub rather than a virtual point for trading. The two hubs were merged in October 2021 to create a single nationwide gas market area – Trading Hub Europe (THE) (*BnetzA* n.d., Eckert 2021). Sebastian Kemper (2021) of Gaspool saw the new hub as “the central starting point for further cross-border links between individual European gas markets” (Kemper quoted by Eckert 2021). The creation of a single market area was expected to further increase liquidity in gas trading, have a positive effect on competition and strengthen security of supply by weakening the market power of any single market player (*IEA* 2020 (a): 161).

Natural gas prices in Germany are self-regulated by market supply and demand. Competition between gas providers is however influenced by network charges or state-imposed price components. There are several factors that influence gas prices in Germany. For example, acquisition costs are composed of the gas purchase price and transport costs. Distribution costs consist of all the costs associated with the transmission of natural gas to the end consumers. The costs associated with the expansion and maintenance of the natural gas network are also considered in these expenses. In accordance with the Energy Tax Act, Germany applies a natural gas tax that covers the level of natural gas consumption in various fields of application. In cases where public land is used by network operators for laying and operating gas pipelines, network operators are obliged to pay the concession fee to the relevant local authority (*BMWi* n.d. (a)). At the time of this writing, gas purchases in Germany were guided

by the prevailing wholesale market prices set at the hub. Trading Hub Europe has inherited Gaspool and NCG order books to continue trading spot assets and futures (Eckert 2021). The prices set at the previous two hubs were relatively close to those of Europe’s largest gas hub, the Title Transfer Facility (TTF). Wholesale prices are usually slightly higher than TTF prices, but lower than gas prices in central and eastern European hubs (IEA 2020 (a): 152).

3.3.2. Gas Supply Security in Germany

Natural gas is the second most important energy source after oil for Germany. According to BMWi, the share of natural gas in primary energy consumption in Germany amounted to 23.8 percent in 2017 (BMWi n.d. (a)). But the gradual increase in the share of natural gas upped its share to 30.6 percent in the first half of 2021, allowing natural gas to become the main source of energy in Germany for the first time ever (AGEB 2021). Figure 2 shows the energy sources in Germany in the first half of 2021.

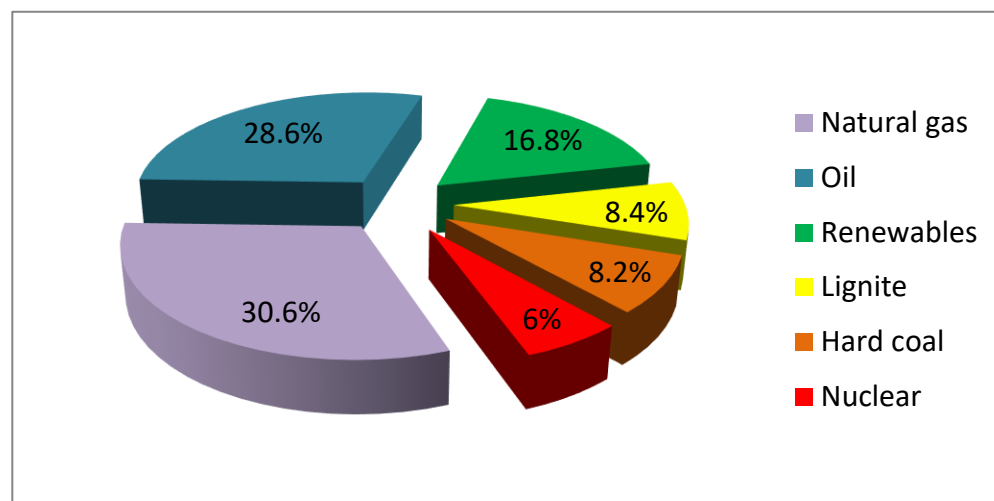


Figure 2. German energy sources, H1 2021.

Prepared by the author based on AGEB 2021 data.

The lower carbon footprint of natural gas compared to other fossil fuels has facilitated its use in several sectors. The most important market for natural gas in Germany is the heat market (BMWi n.d. (a)). According to the IEA, in 2017, the share of natural gas in Germany’s electricity generation was 13.2 percent (IEA 2020 (a): 147). Compared to countries such as the United States, the United Kingdom and the Netherlands, the share of gas in Germany’s power generation has been low due to the fact that Germany does not have significant natural gas resources of its own and has long had a

coal-friendly tradition (Kopp 2015: 229). With the growing share of fluctuating wind and solar energy in the power generation mix, the flexibility of gas-fired power generation was viewed as beneficial for the electricity system. The role played by gas in the electricity system has been further strengthened by the planned full termination of energy generation by nuclear and coal-fired power plants (IEA 2020 (a): 148). Figure 3 illustrates the different levels of gas consumption in Germany by sector.

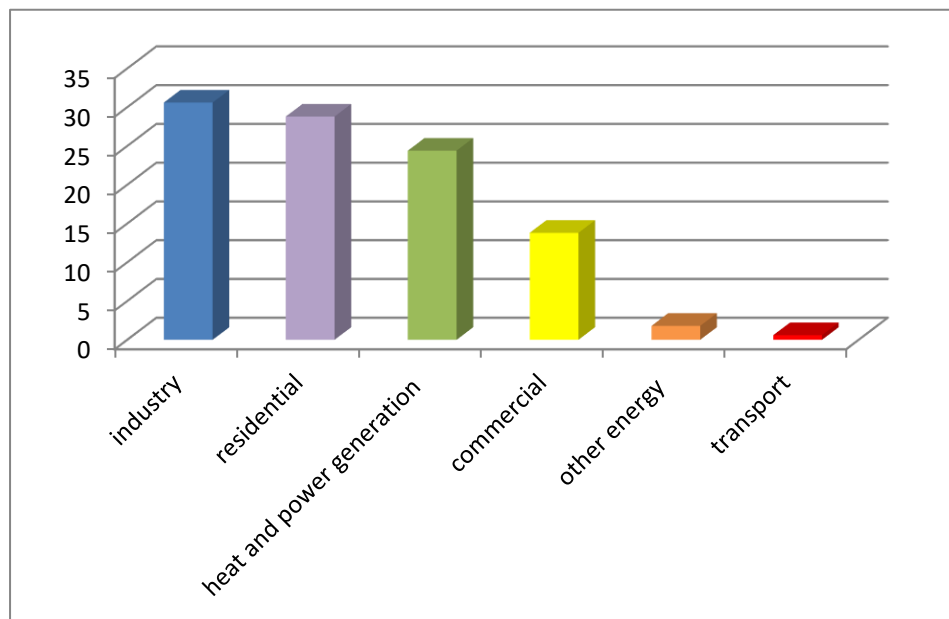


Figure 3. Gas consumption in Germany by sector, 2017 (in percentage).

Prepared by the author based on IEA data (IEA 2020 (a): 147).

Germany's natural gas fields are mainly located in the north of the country. The federal state of Lower Saxony covers about 90 percent of domestic gas reserves and production. Two German offshore oil and gas fields are located in the North Sea. The regulatory framework for the exploration and production of oil and gas resources in Germany is based on the Federal Mining Act of 1980. To comply with the EU requirements, this act was modified in accordance with the Federal General Mining Ordinance of 1995. Exploration and production licenses are issued by the relevant federal lands (IEA 2020 (a): 151).

Natural gas production in Germany starts with conventional fracking to extract gas from sandstone rocks. For safety reasons, the government has banned fracking in ecologically sensitive areas such as water protection and medicinal spring protection areas, at lakes and reservoirs for drinking water

extraction, at water extraction points for public water supply, in catchment areas of mineral water resources, healing springs and water extraction points for the production of food. In addition, further restrictions may be imposed by the federal states, which are responsible for the approval of fracking projects. Unconventional fracking, which involves extracting natural gas from shale, clay, marl or coal bedrock, is also opposed by the government (*BMWi* n.d. (a) & (e)). These factors limit the possibilities of domestic gas production. Table 1 shows natural gas production in Germany between 2009 and 2020.

Table 1. Natural gas production in Germany, 2009-2020.

Source: BP 2021.

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Production (bcm)	12.7	11.1	10.5	9.5	8.6	8.1	7.5	6.9	6.4	5.5	5.3	4.5

The data indicate that over the past decade, gas production in Germany has more than halved, which is a tangible loss for an industrial state like Germany. Domestic natural gas production has been falling since 2004 and is expected to come to a complete halt in the course of the 2020s due to field depletion (Wettengel 2022 (a)). The decline in gas production in Germany and in Europe as a whole contributed to Germany's interests in securing long-term gas supplies (*IEA* 2020 (a): 147). Table 2 shows the gradual increase in total natural gas imports by Germany between 2000 and 2020.

Due to data privacy regulations, since 2016, BAFA does not disclose import information by country of origin. According to *BMWi* and *IEA*, Germany's gas needs were mainly imported from Russia, Norway and the Netherlands (*IEA* 2020 (a): 148, *BMWi* n.d. (a) & (g)). In 2018, Russia's share in Germany's gas imports was 57 percent, while the Netherlands and Norway accounted for 34 percent and 5 percent, respectively (*IEA* 2020 (a): 148). The lack of LNG infrastructure allowed the direct gas imports to Germany exclusively through pipelines. In 2019, Germany, acting also as a gas transit hub, imported 55.5 bcm of gas from Russia, 27 bcm from Norway and 23.4 bcm from the Netherlands, with the three countries accounting for 92 percent of its gas imports (*Rystad Energy* 2020). Until the Ukrainian crisis of 2022, Germany was the largest buyer of Russian gas in the world (*Gazprom* n.d.).

Table 2. Germany's total natural gas imports, 2000-2020.

Source: BAFA n.d.

Year	Import volume (TJ)	Year	Import volume (TJ)
2000	2,841,697	2011	3,637,502
2001	2,951,423	2012	3,644,797
2002	3,063,709	2013	3,744,750
2003	3,187,328	2014	3,604,567
2004	3,389,857	2015	4,283,360
2005	3,420,663	2016	4,156,376
2006	3,519,141	2017	4,059,460
2007	3,323,694	2018	4,453,504
2008	3,480,471	2019	5,712,883
2009	3,551,278	2020	5,354,261

In an interview for this study, Bergschneider noted some flexibility inherent in traditional LTCs, allowing buyers to adapt to variations in consumption, for example caused by mild or cold winters. While the Dutch suppliers asked for an expensive two part tariff, he noted, Norway and Russia offered a pure commodity charge which included flexibility. Bergschneider argues that throughout history, the price for Norwegian gas was always higher than for Russian gas, and simultaneously the flexibility of Russian gas was always higher than the flexibility of Norwegian supply (Claus Bergschneider. Former Gazprom Germania Chief Representative. Author's interview. September 3, 2020). This economic argument partially explains why Russian gas triumphed over other alternatives in supplying gas to Europe. Gas imports from Russia were carried out through three pipeline systems:

- *The Yamal-Europe pipeline.* The capacity of this pipeline is around 33 bcm. The pipeline crosses the German border at Mallnow, where it connects to the YAGAL-Nord transmission system. This pipeline system crosses through Belarus and Poland (BMW n.d. (g)), *Gazprom n.d., IEA 2020 (a): 153*). At the time of this writing, the delivery of gas to Europe through the Yamal-Europe pipeline was suspended by Gazprom, which is discussed in Chapter 9.
- *The Ukrainian gas transmission system* with a capacity of approximately 120 bcm (BMW n.d. (g)). According to the latest agreement, only 40 bcm of capacity is operated annually in the agreed period from 2021 to 2024 (*Gazprom 2019, Ukraine Crisis Media Center 2019*).

Despite Russia's invasion of Ukraine in 2022, by the time the dissertation was submitted, Russian gas exports to Europe through this transport system remained in effect.

- *Nord Stream*, a direct gas transport system from Russia, across the Baltic Sea, with a total transport capacity of 55 bcm per year along two paths (*BMWi* n.d. (g), *Gazprom* n.d., *IEA* 2020 (a): 153).

Germany's gas import capacity from Norway is 54 bcm, which is carried out through three pipelines: Norpipe, Europipe I and Europipe II. Gas from numerous Norwegian fields through the three pipelines mentioned reaches Emden and Dornum in northern Germany. A certain portion of the gas reaching Emden transits to the Netherlands (*BMWi* n.d. (g), *IEA* 2020 (a): 153). The large difference in resource and export potential between Norway and Russia deprived Norway of the opportunity to be a strong competitor to Russia in the supply of natural gas to the German market. As of 2020 data, Norway's total proven natural gas reserves are 1.4 trillion cubic meters (tcm) versus 37.4 tcm of Russia's reserves, while the difference in production is 111.5 bcm of the former versus 638.5 bcm of the latter (*BP* 2021). Moreover, according to forecasts, gas production in Norway is at risk of declining after 2030 (e.g. *Rystad Energy* 2020), which makes it risky to rely on Norwegian gas imports. However, according to the Norwegian Petroleum Directorate (2022), the level of natural gas production in Norway is expected to remain high over the next 15-20 years (*Norwegian Petroleum* 2022), which points to the prospect of continuous gas exports from Norway to Germany.

There are also several pipelines for transporting gas from the Netherlands, particularly, from the Groningen field (*BMWi* n.d. (g), *IEA* 2020 (a): 153). In 2020, compared to 2019, natural gas production in the Netherlands registered a drop of 28.3 percent (*Eurostat* 2021 (a)). Due to seismic risks, the Groningen field is due to fully terminate no later than 2022 (*IEA* 2020 (a): 15), which limits Germany's alternative options for gas imports.

The Trans Adriatic Pipeline (TAP) with an initial capacity of 10 bcm is set to carry gas from Azerbaijan to Europe, indirectly supplying Germany (*BMWi* n.d. (g)). TAP is the last segment of the Southern Gas Corridor, which is an integrated pipeline system consisting of three pipelines, which also includes South Caucasus Pipeline and Trans Anatolian Pipeline (TANAP) (*President of the Republic of Azerbaijan* 2022). First gas deliveries by the TAP pipeline started on December 30, 2020, to Italy (Favasuli 2020). TAP connects with TANAP at the Türkiye-Greece border, crosses Greece and Albania and the Adriatic Sea, before reaching Southern Italy (*EC* 2020, *TAP* n.d.). The pipeline

is designed with the possibility of increasing its capacity up to 20 bcm per year (*EC 2014- 2020, TAP n.d.*).

Germany has a secure gas supply structure with a diversified and reliable delivery portfolio and a robust infrastructure (*BMWi n.d. (a) & (g), IEA 2020 (a): 157*). Germany's pipeline infrastructure, with a total gas network of 511,000 km, can safely deliver large volumes of gas over long distances (*BMWi n.d. (a)*). The German gas network is partially served by low-calorific natural gas (L-gas). This feature makes these parts of the network applicable only to domestic gas or imports from the Netherlands. Due to the reduction in both domestic production and imports from the Netherlands, in 2015 the government began to adapt the network system in line with the supply of high calorific value gas (H-gas) to Germany from other sources, which is expected to be fully completed by 2030 (*IEA 2020 (a): 154*).

At the time of this writing, Germany did not yet have the infrastructure for direct LNG imports. LNG imports to Germany have been carried out through the terminals of neighbouring countries, primarily Belgium and the Netherlands, some LNG is also received via road freight (*Waldholz et al. 2022*). Attempts to create domestic infrastructure for LNG imports were not successful for economic reasons (*Wettengel 2022 (b), Waldholz et al. 2022*), although in recent years the expansion of the LNG market has attracted attention and the relevant rules governing the construction of LNG infrastructure have been adapted (*BMWi n.d. (a)*). With the German decision to refuse from Russian gas imports, the role of the LNG infrastructure, contributing to the diversification of supply sources, has significantly increased.

The energy policy of Germany follows free market principles. Government intervention is applicable only in the absence of a market mechanism or its dysfunction (*IEA 2020 (a): 24*). Germany's gas market has a private image, which involves 16 long-distance gas companies operating transmission system; distribution system operators; storage facility operators; and commercial enterprises dealing in gas trade (*BMWi n.d. (a), IEA 2020 (a): 151*). Despite the large number of companies involved, the German gas industry is dominated by several large enterprises, among which the most notables are Uniper, Wintershall, RWE, EnBW and Vattenfall (owned by the Swedish state). Uniper was established in 2016 as part of complex transformation measures in E.ON. The new creation aims to manage E.ON's activities in the field of fossil energy.

Germany is the largest gas market in the EU and plays an important role as a transit state for gas supplies to other European countries (*BMWi n.d. (a), IEA 2020 (a): 153*). Natural gas enters Germany

through pipelines, and then fed into the German intercity gas network and the underlying distribution networks (*BMWi* n.d. (a)). Given that there are more than 700 operators of regional gas distribution systems and more than 800 gas suppliers, the German gas distribution system is considered the most complex in Europe (Kopp 2015: 192, *IEA* 2020 (a): 151). Gas and electricity markets are regulated by the Federal Network Agency (*Bundesnetzagentur* (BNetzA)) in accordance with the Energy Industry Act (*Das Energiewirtschaftsgesetz*) 2005. The Federal Network Agency is responsible for ensuring a fair competition in the provision of gas and electricity, mainly by establishing non-discriminatory third-party access to networks and price monitoring (*IEA* 2020 (a): 150).

The vertical integration of public utilities was previously considered the best way to ensure the security of energy supply (Westphal 2014 (a): 36). With the Lisbon Treaty (Art.194), energy security, including security of supply has become an area of joint competence, which requires coordination between the EU and its member states (Braun 2011, Westphal 2014 (a): 36, Patrahau & Van Geuns 2021: 17). The regulation on measures to ensure the security of gas supply (994/2010) was developed following the experience of the Russian-Ukrainian gas dispute in 2009, thereby creating for the first time a standard for security of supply, being mandatory for all EU countries (Westphal 2014 (a): 36). This regulation was later overturned by Regulation 2017/1938 on measures to safeguard the security of gas supply (Regulation (EU) 2017/1938. October 25, 2017).

3.4. A Russian Perspective on Natural Gas Trading

3.4.1. Energy – the Backbone of the Economy and Geopolitical Power

Russia with its proven natural gas reserves of 37.4 tcm, which accounts for about 20 percent on the world stage, is the richest natural gas country (*BP* 2021). Exploitation of the natural gas fields in Russia is a highly important political issue because of the economic value. Russia's geopolitical influence on the global political arena is largely determined by its role in world energy markets. Russia's energy resources are the engine of Russia's economic development and the basis for its status as a nuclear power and large military that gives it great power status. This is why increasing energy exports and, consequently, energy revenues, is one of the top priorities on the political agenda of the Russian government.

Russia regards its external energy policy and diplomacy as one of the most important directions of its foreign policy, contributing to the creation of conditions for constructive interstate relations in the energy sector. The major strategic priorities of Russian energy diplomacy include protecting its own interests in the global energy community and ensuring global geopolitical influence (Igbal Guliyev quoted by the *Eurasian Law Journal*: 2016). The close relationship between Russia's foreign policy and the export of its natural resources influences the structure of autonomy and state control within Russia. The close interrelation between the business sector and the government (Hoffman 2003: 372, Wood 2011: 2, Svyatets 2016: 61, Umbach 2018: 2) gives grounds to define the Russian political system as oligarchic capitalism. As described by Maass (2009), "crude oil and political power are umbilically connected in Russia" (Maass 2009: 190). Maass' argument stems from the state's large stake in the oil and gas business in Russia. After the rapid wave of privatisation in the 1990s, the Russian government chose to partially restore the state-controlled model. As a result of this policy direction, the share of government-controlled companies increased from 13 percent in 2004 to 40 percent in 2007 (Pleines 2009: 71).

Russian oligarchs were serious competitors of Russian President Vladimir Putin shaping the domestic and foreign politics of the country. Some of them were too strong to replace Putin as president. In order to avoid internal friction and strengthen his own domestic power, Putin decided to subjugate local oligarchs and merge different domestic groups under a single "umbrella". Russian oligarchs lacked the "independent standing and the corporate solidarity", which eased their subordination to Putin. The oligarchs accepted the new conditions by proving their loyalty to Putin and funding the presidential party (Pravda 2005: 31), those who did not, were forced to leave the country. Despite the close interflow between the government and the energy business, Russian energy oligarchs were not strong enough to exceed the power Putin ceded them and therefore had to modify their business models in accordance with the government's directions (Hoffman 2003: 383-384).

Russia had an important position in Eurasian energy flows. The largest Western European importers of Russian gas were Germany and Italy; the main Eastern and Central European importers included Hungary, Poland, the Czech Republic and Slovakia (*Gazprom Export* 2021(e)). Both relationships in practice were geopolitical, rather than geographical (Nazarov 2015 (a): 35-36). In addition to the EU, non-EU countries in the Western Balkans and Türkiye, as well as some former Soviet states were, and in some cases still are dependent on Russian energy (Perovic 2009: 1, Morningstar et al. 2020: 9). Figure 4 and Figure 5 show Russian natural gas exports in 2020 to Western Europe and Türkiye; and to Central and Eastern Europe, respectively.

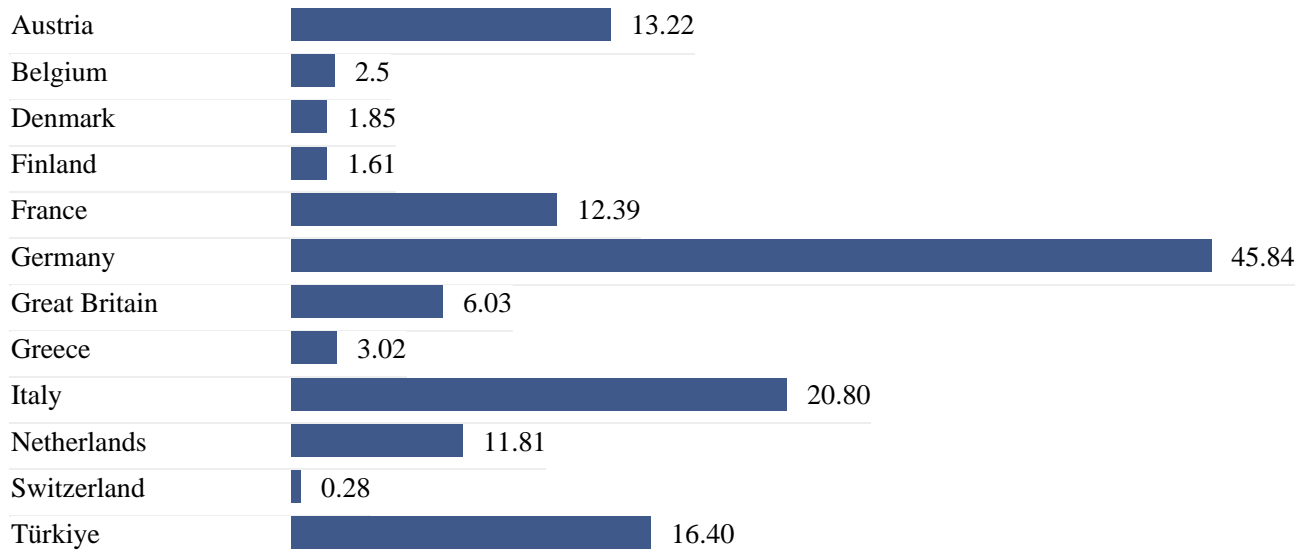


Figure 4. Export of Russian natural gas to Western Europe and Türkiye, 2020 (in bcm).

Source: Gazprom Export 2021 (a).

According to Alexey Miller (2022), Chairman of the Gazprom Management Committee, in 2021, 15 countries increased their imports of Russian pipeline gas, including German imports increased by 10.5 percent (Miller quoted by *Gazprom* 2022 (a)). In the 2000s, prior to the 2008 global financial and economic crisis, energy exports from Russia showed steady growth. Global demand, driven by rapidly growing energy consumption in China, dramatically increased oil and gas prices. Russia responded to this surge in demand by increasing supply. This growth in energy exports and, accordingly, in income led to a growth in the national economy of Russia and strengthened its position in the international arena (Mitrova & Yermakov 2019: 20). With rising incomes, Russia's foreign policy line became more confident and assertive. This attitude was reflected in various developments, such as the idea of creating a "gas cartel" with other major gas producers or Russia's significantly increasing its military spending, including the modernisation of its nuclear forces (Perovic et al. 2009: 1).

In the 1990s and early 2000s, oil and gas companies of Russia made efforts towards diversification of exports outside Europe. Since at the time the energy strategy of Russia was focused mainly on the EU, these one-off attempts did not receive full support of the government (Poussenkova 2009: 132). But years later, Russia expressed its intention to qualitatively change the nature of its presence in the world energy market through diversification of the commodity structure and directions of energy exports, and the active development of new forms of international energy business (Guliyev quoted by the *Eurasian Law Journal*: 2016).

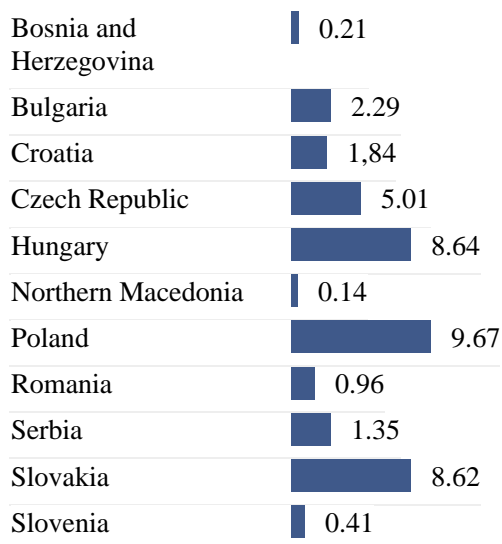


Figure 5. Export of Russian natural gas to Eastern and Central Europe, 2020 (in bcm).

Source: Gazprom Export 2021 (a).

The latest energy strategy (ES) of Russia at the time of this writing has been designed for the period up to 2035. In the ES-2035 of Russia, the accelerated shift in global energy demand to developing countries, where Russia's presence is very limited, and a long-term slowdown in demand in markets with a traditional Russian presence are estimated as a challenge to the security of Russian exports. The development of new energy markets, primarily in the Asia-Pacific region, and strengthening of positions in the highly competitive world LNG markets are of significant interest to Russia (ES-2035. Nr.1523-p). In terms of geographic diversification of pipeline gas exports, Russia's focus is on supplies to China.

The ES-2035 places a clear emphasis on diversification, both internally and externally. In this strategy, the Russian government defines its main priority not in a quantitative increase in the production of the fuel and energy complex, but in a qualitative renewal – modernisation of the energy sector. Comparing to the ES for the period up to 2030 (ES-2030. Nr.1715-p), the latest strategy includes major aspects about the development of domestic energy infrastructure, that is, overcoming the traditional imbalance in favour of export projects and export infrastructure; the improvement of the availability and quality of energy products and services; the implementation of sustainable development principles in energy companies and state regulation of energy development. Within the framework of the ES-2035, the government of Russia aims to make the transition from resource-based to resource-innovative development in its fuel and energy complex. At the same time, under the new strategy, the role devoted to the fuel and energy complex in Russian economy is being

transformed from a “locomotive of development” into a “stimulating infrastructure”, aimed at creating conditions for economic development (ES-2035. Nr.1523-p).

Russia is one of the leading proponents of nuclear energy, driven mainly by economic factors. The country leads the world in exporting nuclear reactors. The State Atomic Energy Corporation is diversifying its portfolio of services using nuclear technologies in various sectors (*ROSATOM* n.d.). Economic factors motivated the development of renewable energy in Russia. In contrast to the growing costs for the development of new oil and gas fields, the costs for renewable technologies are decreasing. The growing perception that renewables do not compete with fossil fuels, but rather complement them in remote areas, contributed to the interest in renewables (Gusev 2016: 78-81). It is worth noting that the Russian gas industry is physically segmented, as several geographic regions are isolated from the main Russian gas transmission network (Nazarov 2015 (b): 252). Therefore, Russian political elites became increasingly open to promoting wind and solar energy. Renewable energy projects in remote areas are beneficial to local communities and are usually run by small and medium-sized companies (Gusev 2016: 78-81). But despite some efforts, Russia’s success in developing renewable energy sources is only partial, which can be explained by its industrial culture based on conventional energy sources. The era of conventional resources has benefited the Russian economy and foreign policy.

3.4.2. Gazprom in Competition

Putin’s strategy to develop into an energy superpower contributed to the power of Gazprom, an energy giant with a vertical management structure. In 2002, a new team of top managers was appointed to Gazprom, which was aimed at changing Gazprom’s existing strategy to a new one in line with Russia’s new proactive energy policy. Thus, Gazprom became a significant foreign-policy instrument in the country’s political relations, while gas exports were considered as an effective means to strengthen Russia’s political influence (Vavilov & Trofimov 2015: 83). With its strengthened power, Gazprom was able to effectively compete with Western transnational corporations. At the time of Gazprom’s privatisation in 1994, the Russian federal government held only a 35 percent stake. Gazprom was not yet a major player in Russia’s foreign policy (Tsygankova 2008: 5). With the reestablishment of state control over the domestic energy sector, the government’s share in the company increased to 50.002 percent in 2005 (Kreyndel 2015: 53). The acquisition of a

controlling share in Gazprom enabled the government to use Gazprom as a policy tool for its broader foreign policy interests.

In July 2006, Russia adopted the Federal Law on Gas Export, legally securing for Gazprom the exclusive rights to foreign trade, which is handled by its subsidiary, Gazprom Export. Gazprom currently dominates the Russian gas industry in terms of gas reserves under its control and because of its monopoly position in gas transportation within the country, its large share of domestic gas supplies, and its exclusive rights over Russian pipeline gas exports.

Since 2005, the gas giant has sharply increased its export share. In order to expand natural gas exports worldwide, Gazprom captured new markets in the Middle, Near and Far East, South America and Africa. Gazprom opened foreign subsidiaries in almost all states, which import Russian natural gas. With its increasing power in world energy markets, Gazprom has evolved far beyond the level of an investor just looking for a profit, to that status of an owner who has control over a sector of strategic importance. Andreas Heinrich (2008) also pointed out the shell companies created by Gazprom to cover up its international activities. Heinrich saw possible reasons for this decision in Gazprom's desire to avoid opposition to its investments in the countries where it operated, and/or in its intention to minimise tax expenditures and/or for asset stripping purposes (Heinrich 2008: 8-9).

Gazprom aimed to establish direct relations with end consumers of its gas. The company saw potentially huge profits in wholesale and retail trade in the domestic markets of importing countries. To achieve this goal, Gazprom sought to expand its range of ownership by establishing control over gas transmission, distribution, storage and sales networks. It thus sought partnerships with players operating in the European gas market. It further implemented this strategy through a wide range of vertical integration measures such as the acquisition of foreign physical assets, the acquisition of stakes in existing and new infrastructure projects, and the exchange of financial risks (Vavilov & Trofimov 2015: 85-87). For instance, in 2007, Gazprom signed a €400 million agreement with the Luxembourg company Soteg SA on the construction of an 800 megawatt power plant in the town of Eisenhüttenstadt, Germany (*Budapest Business Journal* 2007). But Gazprom's relevant intentions to increase its power in Europe were in many cases blocked by regulatory barriers to downstream integration imposed by EU authorities on vertically integrated energy companies. This led Gazprom to pursue an "unusual contractual arrangement" – asset swapping (Vavilov & Trofimov 2015: 85). Energy-asset swaps were viewed by Gazprom as a means of mitigating the regulatory barriers through lobbying by relevant European partners in these swaps. Gazprom's asset swap deal with Germany's Wintershall, concluded in 2015 was a beneficial deal for the Russian gas giant. This agreement

allowed Gazprom to acquire a stake in German oil and gas projects in the North Sea and to expand to 100 percent its participation in German-Russian joint gas trading and storage companies in Europe, including Wingaz. The Russian concern also acquired half of WINZ, part of the Wintershall Group (*Gazprom* 2015), which explores and produces hydrocarbons in the Dutch, British and Danish sectors of the North Sea.

Direct access to large European industrial and gas-fired power generation markets continued to be of interest to Gazprom. In June 2021 Gazprom Export LLC completed the acquisition of Centrex Europe Energy & Gas AG from Bank GPB (JSC), becoming the main shareholder of Centrex Group (*Gazprom Export* 2021(b)). At the same time, European companies showed interest in expanding gas deals with Gazprom. In October 2020 Gazprom and Austrian OMV concluded a long-term agreement to supply the German market with Russian gas (*Gazprom Export* 2020). In January-August 2021, Gazprom's gas exports to the Far Abroad countries, that is those outside the Commonwealth of Independent States (CIS), reached 131.3 bcm, which is close to the historical record of 133.3 bcm for the same period in 2018. According to Gazprom Export, the company's gas supplies to Germany during January-August 2021 increased by 39.3 percent compared with the same period in the previous year. A year-on-year increase in Russian gas supplies in January-August 2021 was also noted for Türkiye (by 173.6 percent), Italy (by 15 percent), Romania (by 344 percent), Serbia (by 123.9 percent), Poland (by 12 percent), Bulgaria (by 50.9 percent), Greece (by 15.8 percent), Finland (by 22.7 percent) (*Gazprom Export* 2021 (c)). These developments pointed to the increased role of Gazprom in the global gas market, contributing to Russia's energy power.

Despite Gazprom's power in the Russian gas sector, the gas giant faced domestic challenges in light of growing competition. As a result of certain regulatory measures, various Russian private companies began competing with Gazprom in gas production on the domestic market (Nazarov 2015 (a): 16-17, Mitrova & Yermakov 2019: 32). This trend led to a gradual decrease in Gazprom's share in domestic gas production – from nearly 90 percent in 2000 to less than 80 percent in 2010 (Mitrova & Yermakov 2019: 32), and 68 percent in 2021 (*Gazprom* n.d.). The decrease in the share in domestic gas production affected the share of Gazprom in global natural gas production. Table 3 shows the decline in Gazprom's share of global natural gas production between 2009 and 2020.

Table 3. Gazprom's share in global natural gas production, 2009-2020.

Source: Statista 2021 (a).

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Share in global production (%)	14.5	14.8	14.5	13.6	13.5	12.1	11.2	11.2	12	12.1	11.7	10.9

Gustafson (2020) observed that the historic agreement between Gazprom and the Russian government – the “Gaidar deal”⁸ – was gradually weakening and suggested it could soon end. Thus, there were signs that Gazprom’s monopoly position in gas exports was weakening (Gustafson 2020: 280).

The gas export strategy of Russia at the turn of the decade followed two directions: pipeline gas exports by Gazprom and LNG exports by Novatek. Figure 6 presents the dynamics of gas exports from Russia through pipelines and in the form of LNG in the period between 2009 and 2020. The figure clearly demonstrates the big difference between the two export options in favour of pipeline gas, but with a sharp increase in LNG exports.

LNG was a low priority for the Russian energy sector. LNG began to be considered as part of the national supply strategy in 2003 and gained greater priority after Putin’s return to the presidency in 2012. Putin directed increased investments into gas developments in Eastern Siberia, mainly to ensure LNG exports (Gustafson 2020: 317). The development of the LNG export strategy was expected to provide flexibility for Russian gas exports (*Ministry of Energy of the Russian Federation* 2021). In the area of gas production, Russia began moving from Western Siberia to a giant new gas province on the Yamal Peninsula in the Russian Arctic to ensure the sustainability of gas production. This strategy aims to control the rate of resource decline in the Russian gas sector. The start of the Yamal LNG terminal’s commercial operations in the Russian Arctic helped Russia in diversifying its gas export infrastructure. Several megaprojects for the development of LNG projects in the Russian Arctic planned by Novatek received strong regulatory support from the Russian Government (*Interfax* 2019, Mitrova & Yermakov 2019: 11-35). During the discussion of Russia’s Eastern Gas Program with Miller in October 2012, Putin stated: “We will create a new gas export channel oriented towards the Asia Pacific ... and develop LNG options first and foremost” (Putin quoted by Gustafson 2020: 308-317). This statement indicates the importance of LNG projects in the current gas strategy of

⁸ This was the deal, in accordance with which Gazprom secured gas to the loss-making domestic market in exchange for monopoly control over transportation and exports (Gustafson 2020: 280).

Russia and suggests that the development of LNG projects is carried out under the patronage of the president himself.

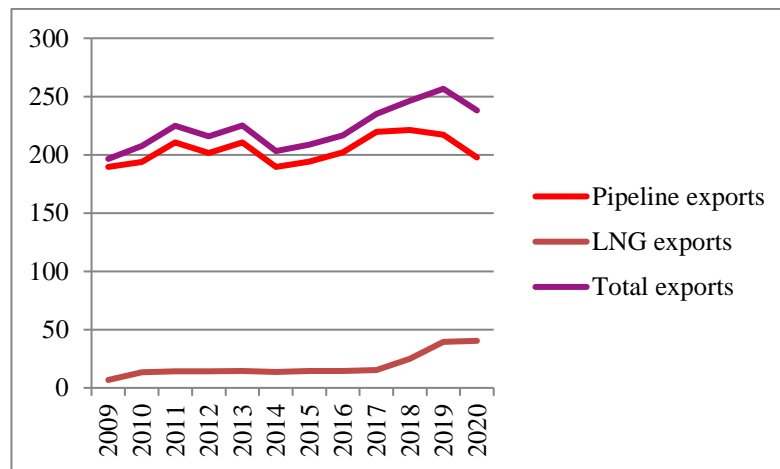


Figure 6. Russian gas exports through pipelines and in the form of LNG, 2009-2020 (in bcm).

Prepared by the author based on BP 2021 data.

Gazprom refrained from LNG projects with the exception of Sakhalin-2, for which Gustafson (2020) provided two main reasons: One was the financial demands from Gazprom’s strategy to build multiple pipelines to Europe bypassing Ukraine. The second was related to Gazprom’s core expertise and traditional commercial activities in the delivery of dry gas via pipelines to Europe and Miller’s “consistent voice for traditional approaches and technologies”. But Gazprom’s reluctance to invest in LNG ultimately led it to lose ground to its competitors. This impacted not only its domestic market share but also led to competition with its dominance over export markets. The growing priority of LNG in Russian politics displeased Gazprom (Gustafson 2020: 317-319). In 2019, Gazprom publicly objected to Novatek’s Yamal LNG project, which according to Gazprom, was displacing its pipeline gas with LNG. Gazprom complained about Novatek’s tax benefits – benefits which Gazprom did not have. The gas giant viewed this as depriving the state budget in 2018 of RUB 30 billion in revenue. According to Gazprom, out of 7.6 million tons of LNG produced by the Yamal LNG project in 2018, 4.9 million tons were delivered to the European market. As a result, Russian pipeline gas, on which an export duty of 30 percent was paid, was squeezed out of the European market (*Kommersant* 2019). Novatek, however, disagreed with Gazprom’s claims, emphasising that the green light to its LNG projects was given by the government (*Interfax* 2019).

Russian Energy Minister Nikolai Shulginov (2021) saw no competition between Russian pipeline gas and Russian LNG. The Minister instead focused on the competition between Russian LNG and other LNG suppliers such as the United States, Australia, and Qatar. Shulginov suggested that cross-border LNG trade would soon surpass pipeline gas trade, and thus the challenge for Russia was to become sufficiently represented in the LNG market (Shulginov quoted by the *Ministry of Energy of the Russian Federation* 2021). The prospect of Russia becoming one of the world's major players in the LNG sector is also indicated in the ES-2035, which can be seen as its rational response to the growing importance of the LNG trade, including the increase in the US market share in this area.

3.5. Nord Stream 2

Gas disputes broke out between Russia and Ukraine in the 2000s raising concerns about the reliability of gas transit routes from Russia to Europe. Germany and Russia found a solution to this problem with their decision to build a direct gas pipeline between the two states, independent of transit states. This was the NS pipeline, and consisted of two paths on the bottom of the Baltic Sea in the exclusive economic zones of Denmark, Finland, and Sweden, and with onshore terminals in Germany and Russia (*Nord Stream AG* n.d.). The favourable political configuration around the construction of NS was able to neutralise the political and environmental resistance against the project, and the pipeline came into effect, becoming the longest underwater pipeline in the world.

As early as 2010, NS's shareholders discussed the possibility of expanding the project for economic and security of supply reasons (Andreas Metz. German Eastern Business Association. Author's interview. March 18, 2021). This led to the launch of the NS2 project in 2015 in Switzerland. Gazprom is the sole shareholder in Nord Stream 2 AG, fully owning the pipeline with a total capacity of 55 bcm (27.5 bcm per path) per year. Funding agreements for the project were signed with five large European companies: ENGIE (France), OMV (Austria), Royal Dutch Shell (Anglo-Dutch), Uniper (Germany) and Wintershall Dea (Germany), which financed 50 percent of the total project cost (*Nord Stream 2 AG* n.d.). Nord Stream 2 AG was originally created as a joint venture between Gazprom and these five European companies (by the time the funding agreement was signed, E.ON had been replaced by Uniper). But this structure was changed due to objections from eight EU states, including Czech Republic, Estonia, Hungary, Latvia, Poland, Slovakia, Romania and Lithuania, and from the Polish anti-monopoly authority – UOKiK (Russell 2021). Eventually, the five European companies transferred their ownership to Gazprom and entered into a financing agreement in April

2017 (Pallardy 2020), which Gazprom called a “formal step” (Soldatkin 2016). Funding for the project, worth €9.5 billion, was distributed between Gazprom, investing €4.75 billion and the five investors, contributing €950 million each (Westphal 2021: 2). The new agreement weakened the positions of the involved European companies but did not prevent their contributions to the project. This fact testified to their economic interest in the implementation of NS2 and that of the respective states in whose jurisdictions the participating companies were located.

The NS2 pipeline (Figure 7) was designed to supply gas from the large Bovanenkovo field on the Russian Yamal peninsula. Bovanenkovo’s gas reserves are about 4,900 bcm, which is more than double the total proven reserves of the EU (Kruse & Berkhahn Blyhammar 2019: 6). NS2 was a way to bring this new field on-stream (Bros et al. 2017: 44). Natural gas to be transported through NS2 was supposed to originate from the Yamal Peninsula in northwestern Siberia. Except for the point of departure, NS2 followed basically the same route as NS and ended at Greifswald in Germany. It then was connected to an onshore pipeline and to the German market and through it was expected to deliver gas to the broader European gas network (*Nord Stream 2 AG* n.d.).

From an energy security perspective, the NS2 pipeline, providing a direct link between the exporter and the importer, was supposed to ensure a reliable energy supply. As a Trans-European Network project, connecting the United Kingdom via Germany and the Baltic Sea to Russia, NS2 would allow the delivery of more gas towards northern Europe and further to the United Kingdom, thereby increasing Germany’s significance in the European energy redistribution system. At the same time, it would strengthen Russia’s market power and as critics pointed out (e.g. Dudek & Piebalgs 2017, Riley 2018), its potential political leverage in Europe.

Former EU Energy Commissioner Andris Piebalgs (2021) assessed NS and NS2 differently. He believed that the NS pipeline was built for economic reasons to meet growing gas demand, while the NS2 pipeline was influenced by many political factors, a major one being the goal of bypassing Ukraine. Piebalgs did not see any economic logic in NS2; the volume of unsecured gas supplies from other sources, including the North Sea, did not match the volume of implied gas supplies through NS2. At the same time, Piebalgs claimed that the NS2 project was beneficial for the German companies that participated in its financing. They formed the main basis for the launch of the project from the German side (Andris Piebalgs. Former EU Energy Commissioner. Author’s interview. March 24, 2021).



Figure 7. Route maps of Nord Stream and Nord Stream 2 gas pipelines.

Source: Gazprom n.d.

Kai-Olaf Lang and Kirsten Westphal (2017) of the German Institute for International and Security Affairs (*Die Stiftung Wissenschaft und Politik – SWP*) explained the economic logic of the NS2 project by the overlap of commercial interests between the largest exporter and the largest importer of natural gas. The authors believe that Gazprom’s strong presence in the entire German supply chain and Germany’s role as the largest gas market and the largest buyer of Russian gas in the EU presented Germany as the best option for a hub for Russian gas exports to the West (Lang & Westphal 2017: 10-11).

In a study conducted by Bros et al. (2017), the NS2 project was perceived as a product of Gazprom’s flexible marketing strategy, pursuing a “volume-driven” goal in response to the changing environment in the EU gas market. The authors explained this forward-looking view by the prospect of a decrease in the impetus for alternative projects in a saturated gas market (Bros et al. 2017: 11). Jerzy Dudek and Andris Piebalgs (2017) expressed the same view more critically, stating that NS2 could discourage competition in the EU energy market and limit new investments in gas infrastructure. The authors argued that NS2 could widen the existing gap between Western and Eastern markets and increase the cost for a well-interconnected EU market (Dudek & Piebalgs 2017: 1).

Different studies gave different results on the economic evaluation of the NS2 project, contradicting each other. Economic arguments in favour of the NS2 project mainly included the fact that the pipeline represented the shortest route from gas source to destination (e.g. Amaro 2021), since the distance from the new fields on the Yamal Peninsula along NS2 to the EU gas markets was one third shorter than via the older route through Ukraine; and that the direct connection to the destination market would eliminate transit fees, thereby increasing the economic viability of the project (e.g. Lang & Westphal 2017: 10). A supporting economic argument in terms of physical aspects was the efficiency of the new route, capable of operating at higher pressures and with an inner pipeline lining that could reduce friction and lower the compression ratio required to push gas. This, in turn, would reduce transportation costs via the NS2 pipeline (Barnes 2017: 4, Jörg Kirsch. BMWi. Author's interview. September 2, 2020). A supporting argument in terms of pricing suggested that the NS2 project would serve for lower gas prices in the EU by increasing gas-to-gas competition between piped gas and LNG supplies (Barnes 2017: 2-3, Hecking & Weiser 2017: 23). Citing Germany's growing dependency on gas imports, the head of power and gas markets of Rystad Energy, Carlos Torres Diaz (2020) claimed: "If Germany decides price is the most important factor, Nord Stream 2 will go ahead, as it diversifies supply to the market, reducing the risk of high energy prices." (Torres Diaz quoted by *Rystad Energy* 2020). Rystad Energy (2020) predicted an increase in Germany's annual gas demand to more than 110 bcm by 2034 (*Rystad Energy* 2020). Referring to the growing gas demand, Alex Barnes (2017) expressed his belief that it was in Gazprom's interest to ensure sufficient reliable capacity to capture a share of the additional import demand. Additional capacity could maintain Russian gas competitiveness in the European market (Barnes 2017: 1). In contrast, a 2018 study by Anne Neumann, Leonard Göke, Franziska Holz, Claudia Kemfert and Christian von Hirschhausen of the German Institute for Economic Research (*Deutsches Institut für Wirtschaftsforschung – DIW*) argued that the gas demand for the NS2 project was overestimated, putting the investment in this project at risk, and casting doubt on the economic rationale of the project. This argument was based on the fact that the capacity of the existing NS pipeline was not fully utilised (Neumann et al. 2018). A similar view was expressed by Alexander Fak (2018), who examined the economic prospects of NS2 for Gazprom. The author assessed the pipeline as economically nonsensical. He concluded that the pipeline would bring no additional income to Gazprom. This conclusion led Fak to believe that strategic Russian foreign policy goals were behind the NS2 pipeline construction (Fak quoted by Pollmeier & Zühlke 2018).

Goldthau's 2016 study concluded that NS2 could have served for the partial redirection of already contracted deliveries, and thus, could have had a neutral effect on European import rates. He saw the additional capacity available through NS2 as beneficial for meeting the growing gas demand in

Europe (Goldthau 2016: 31). A similar view was expressed by Nikos Tsafos (2019) regarding the NS pipeline. Analysing gas flows to Germany via NS between 2010 and 2018, the author came to the conclusion that the NS pipeline changed the route of the gas supply, not the volume (Tsafos 2019).

Since its inception, the NS2 project has drawn a lot of criticism. Political arguments against the implementation of the project mainly included further strengthening of Gazprom's dominance in the EU markets and the possibility of political leverage by Russia, goals to diversify energy supply sources, principles of solidarity within the EU and the weakening position of current transit countries, including Ukraine. The main third-party opponents of the project were the United States and Central and Eastern EU countries, who argued that the implementation of the NS2 project could lead to "potentially destabilising geopolitical consequences" (Sytas 2016). The critical debate about the NS2 project was similar to the debate about NS. The criticism, however, took on a new dimension due to the deterioration in political relations between the West and Russia in the aftermath of the 2014 Ukrainian crisis. This contributed fodder to the political arguments against the project.

The criticism of the NS2 project came not only from third parties. In Germany there was also considerable criticism of the project. Proponents of green energy argued against the project on the basis that natural gas is a fossil fuel and that a new pipeline would be a further infrastructural lock-in keeping the EU dependent on fossil fuels, and thereby also delaying the transition to sustainable energy sources. For example, Oldag Caspar (2021) of Germanwatch viewed NS2 as a potential obstacle to Germany's energy transition, as the gas pipeline sent signals to German investors and the political system, that natural gas would be available in abundance and with relatively low prices for decades to come. However, Caspar added that the gas price hike of autumn 2021 and the plausible plan by the Kremlin to halt gas exports through Ukraine fueled the impression in Germany that NS2 would actually not deliver more energy security combined with relatively low gas prices (Oldag Caspar. Germanwatch. Author's interview. February 11, 2021; December 6, 2021). Claudia Kemfert (2020) expressed her opinion of the NS2 pipeline as "politically problematic, unnecessary in terms of energy supply, too expensive and incompatible with EU energy and climate goals" (Kemfert 2020 (a) (translated by the author)). Norbert Röttgen (CDU) (2019), then Chairman of the Bundestag Foreign Affairs Committee also opposed the NS2 project: "The federal government's policy in matters of Nord Stream 2 has been one-sided for years, regardless of the majority opposition in the EU and, above all, the security concerns of our Eastern European neighbours." (Röttgen quoted by Von Marschall et al. 2019 (translated by the author)). As the pipeline construction progressed, internal criticism subsided.

The climate-oriented energy policy of the EU generated interest in the environmental aspects of the NS2 project. Political opposition to the project increased the importance of its environmental assessment. Environmental non-governmental organisations (NGOs) noted that the NS2 pipeline passed through or affected several coastal and marine protected areas, including the Kurgalsky nature reserve in Russia and five Natura 2000 sites in Germany. Environmentalists filed numerous lawsuits against the pipeline in German, Russian and Finnish courts (Russell 2021: 6-7). Environmental concerns had also been raised in both Europe and Russia in connection with the NS project. Nevertheless, despite the influential position of environmental groups on many related issues in Germany, in the case of the NS project, environmental objections did not prevent the pipeline from being implemented (Svyatets 2016: 111-112). According to the Nord Stream 2 AG, extensive environmental surveys were approved by the relevant national environmental authorities (Nord Stream 2 AG n.d.). Environmental monitoring of NS2 was based on five national environmental monitoring programmes⁹.

The analyses and opinions presented in this section were predominantly formulated prior to the Ukrainian crisis of 2022. The strong opposition to Russia's war against Ukraine, which was still ongoing at the time of this writing, led to the cancellation of the NS2 project. A more detailed analysis of the impact of the Russian invasion of Ukraine and how this impacted upon the interrelationships between political, economic and environmental aspects of the NS2 project are presented in subsequent chapters.

⁹ Since environmental issues are not the main subject of this study, the environmental arguments for NS2 are not analysed in depth in this dissertation. Some relevant documents in this regard were accessed on the official website of the Nord Stream 2 AG, which addressed environmental issues from a regulatory perspective and emphasised the importance of the pipeline compliance with EU environmental regulations and objectives.

4. “GAS GAME” – WHO MAKES THE RULES?

This chapter is devoted to the analysis of the main actors who directly or indirectly influenced gas relations between Germany and Russia. This analysis covers both individuals and legal entities (The role of the EU, however, is discussed later, in Chapter 6). The economic basis for natural gas cooperation between Germany and Russia highlights the important role that commercial structures played. At the same time, the gas cooperation between the two states was also of a geopolitical nature. Political involvement in the gas sector is very apparent in Russia, given the close interflow between the government and the gas business. The chapter presents a comparative analysis of the internal government structures in Germany and Russia and discusses the interconnections between domestic and foreign policy, as well as business and politics.

4.1. Russia’s Approach to Shaping Gas Relations

Strategic decisions regarding the Russian energy sector are made “by the Kremlin or with its consent”. The main Russian actor influencing German-Russian gas relations was the president of Russia, Vladimir Putin. Putin’s strong influence stemmed from his formal constitutional legitimacy and informal position in the Russian political system (Hill & Gaddy 2013, Kardaś 2019: 27, Ilya Zaslavskiy. Free Russia Foundation. Author’s interview. April 18, 2020; Kirsten Westphal. SWP. Author’s interview. June 17, 2020). Alex Pravda (2005) associates “power in the Kremlin” with “paternal authority” in the eyes of the Russian community (Pravda 2005: 24).

Centralisation of power in Russia required the centralisation of key critical industrial assets and the concentration of economic assets in the hands of the state. This gave the state a high degree of control over industries (*St. Petersburg State University* 2020). Increased state ownership in the energy sector contributed to the consolidation of energy policy in central hands. This was accompanied by a shift towards greater top-down decision making in Russia and contributed to the president’s rise to a position of indisputable power within the government. According to Andrew Wood (2011), a former British Ambassador to Russia, on assuming the post of president, Putin himself proclaimed the political structure of Russia a “vertical of power”, and a necessary framework for stability (Wood 2011: 2).

Jeronim Perovic (2009) argues that the system created by Putin is based on a costly rent-sharing scheme as it links various elite groups to the state to ensure the stability of the system (Perovic 2009: 8). David Hoffman (2003) describes the system created by Putin as one “in which prominent businessmen command political power, and powerful politicians are able to arbitrarily choose winners and losers” (Hoffman 2003: 372). Tor Bukkvoll (2010) observed the rise of Russia’s energy elite since 2001, who supported Putin in maintaining power, in return for the right to exercise policy influence (Bukkvoll 2010: 225). The Russian business elite is mainly dependent on the political elite. In the sphere of energy, Russian political and business elites are closely intertwined (Wood 2011: 2).

Presidential power was strengthened by several rules adopted by the government, which led to a significant reduction in opposing policy directions regarding strategic issues facing the state. For instance, with the creation of a large pro-presidential bloc by the merger of four centrist fractions in 2001, it became easier for the government to quickly pass reform legislation. This trend ensured stability in policy direction compared with the period of the 1990s but led to a centralisation of the government and added steadiness to presidential power. As a result of the adoption of the *Federal Law “On Political Parties”* in 2001 (Central Election Commission of the Russian Federation 2001, President of Russia 2001), the number of political parties decreased. This trend prompted the various parties operating in the government to join forces and ultimately contributed to the strengthening of power of the ruling party, United Russia. Paul Chaisty (2005) assesses the strategy of the Kremlin as being majoritarian, since it pursues the formation of “narrow decision-making majorities – ideally confined to one disciplined party” and discouraging divergent views and policy directions in the parliament. This, in turn, has influenced the dynamics of relations between the parliament and the president, adding to executive dominance in the policy sphere. But the author notes that this does not mean the absolute domination by the executive in the legislative sphere (Chaisty 2005: 119-120).

Putin’s strengthened domestic position added a higher degree of certainty to the direction of foreign policy decisions. Fiona Hill and Clifford Gaddy (2013) believe that Putin’s power and the principle of one-man management limit the participation of other authorities in foreign policy-making, which they portray as “a highly centralized decision-making system that is based on trust only among a few inner circle confidants” (Hill & Gaddy 2013). Putin’s power also continued during Dmitry Medvedev’s presidency, when the center of decision-making shifted from the presidential administration to the government, where Putin was prime minister (*St. Petersburg State University* 2020).

Despite the vertically integrated government structure and the strength of presidential power in Russia, Putin's power is subject to some limitations. Gustafson (2020) argues: "Putin is clearly the chief decider in Russian gas policy. But in the everyday conduct of business, Gazprom, like any large organization, has the capacity to delay, resist, and reshape the Kremlin's commands, if they run counter to Gazprom's commercial objectives, business models, and core competences. Russian gas policy has been at its most effective when the two levels mesh smoothly." (Gustafson 2020: 283-284).

Putin was successful in maneuvering Russia's oil and gas resources in order to achieve the government's geopolitical objectives. The political strategies he followed in the sphere of energy trade followed a realist logic. Wood (2011) opined that Putin did not hesitate to employ "political pressure or encouragement as appropriate in pursuit of what he sees as Russia's economic/mercantilist advantage" (Wood 2011: 7). The relations between Germany and Russia differed from Russia's relations with other states in their geopolitical significance. The relationship has been strictly controlled by the president. The analysis reveals ample evidence supporting Putin's important role in strengthening gas cooperation between Germany and Russia. According to several respondents interviewed for this research, including those representing Western interests, Putin has deep knowledge of the gas industry and personally controls major strategic issues linked to the Russian gas market. Jonathan Stern (2020), a professor at the Oxford Institute for Energy Studies (OIES) thinks that "Putin is an unusual leader in that he has a huge and extensive knowledge of energy. It is not difficult for him to discuss the technical details of natural gas projects with company executives." This unique trait is reflected in the degree of importance that Putin places on the gas industry (Jonathan Stern. OIES. Author's interview. April 24, 2020).

The second most influential person involved in German-Russian gas relations after Putin was Alexey Miller (Jörg Kirsch. BMWi. Author's interview. September 2, 2020, German fossil-fuel industry representative. Author's interview. January 25, 2021), who since 2001 has held the post of Chairman of the Management Committee of Gazprom. Matthias Warnig, Chief Executive Officer (CEO) of Nord Stream AG, was another prominent figure promoting Russia's gas interests in Germany. Both Miller and Warnig were often described by the media as close allies and confidants of Putin. Ilya Zaslavskiy (2020) claimed that Warnig personally tried to solve the main gas-related issues between Germany and Russia, for which he won the support of "high-flying politicians" (Ilya Zaslavskiy. Free Russia Foundation. Author's interview. April 18, 2020).

The Ministry of Energy of Russia has responsibilities for drafting and implementing government policy in the energy sector, including oil and gas pipelines (*Ministry of Energy of the Russian Federation* n.d.). Nevertheless, research for this study found that the role played by this ministry in shaping German-Russian gas relations was limited. This is due to the decisive role of the president and the influential position of Gazprom in Russian energy policy.

The Ministry of Foreign Affairs of Russia is responsible for the development and implementation of international energy policies and regulations (*Ministry of Foreign Affairs of the Russian Federation* n.d.). It acted as a “diplomatic executor” (Ilya Zaslavskiy. Free Russia Foundation. Author’s interview. April 18, 2020), without affecting the economic aspects of German-Russian energy trade. The role of the Foreign Affairs Ministry in German-Russian energy relations increased after sanctions were imposed on Russia as a result of the 2014 Ukrainian crisis. During the period covered by this study, the ministry was mainly concerned with the settlement of relations between Russia and the Western powers.

In the formation of Russian gas policy towards Germany, political scientist Aleksandr Sherstobitov (2020) considered it important to distinguish between two concepts – *politics* and *policy*. Sherstobitov argued that the relevant ministries have enough qualified personnel on middle level management positions, who perform well on assigned executive tasks, but do not make any strategic decisions. These staff members deal with *policy* and are hired based on their professional qualities. Staff involved to conduct *politics* is hired on the basis not only of their professionalism, but also their loyalty. Political cadres are those who determine the strategic vectors of respective ministerial actions. They are involved in *politics*, with limited involvement in *policy*. This discrepancy, according to Sherstobitov, creates a certain imbalance and reduces the performance quality of the relevant ministries. However, the recruitment of the qualified professionals to the executive bodies is strategic. The political elites engage with them to maintain a certain level of governability and to reduce the negative effects of authoritarian rule and rent-seeking behaviour (Aleksandr Sherstobitov. Political scientist. Author’s interview. August 31, 2020). In Russia, the tenure of political appointees is long and staff turnover is low. As noted by Eugene Huskey (2005), a greater emphasis on personal loyalty in appointing key personnel has formed a government oriented towards political leaders who lobby less for their institutions than for members of their political team (Huskey 2005: 168-170).

Sabine Kropp and Aadne Aasland (2018) point out that Russia employs governance networks to improve the quality of solutions when solving complex problems. Within such networks, the authors argue, horizontal relationships arise between actors, some of which are rather rudimentary, while

others are more pronounced. The authors note a high level of consensus in Russia's domestic policy and the dominant role of the state. To ensure its leading position, the government employs a wide range of hard and soft meta-governance tools to manage networks. The networks are not only tied to a multi-level, albeit highly re-centralised federal system, but also interact with different, sometimes even competing authorities representing different portfolios and pursuing different political goals at different levels. The decision-making authority remains a state monopoly since according to the authors, Russian governance networks are never given real formalised decision-making power (Kropp & Aasland 2018: 219-223).

The actors in the Russian gas sector represent the business sector (upstream, midstream and downstream) and energy regulators (lawmakers) – in this case, ultimately the government. The close ties between the government and the energy business in Russia (e.g. Hoffman 2003: 372, Wood 2011: 2, Svyatets 2016: 61, Umbach 2018: 2) denotes a consensus in the Russian energy sector. Interviews and statements by President Putin, Gazprom CEO Alexey Miller, then Prime Minister Dmitry Medvedev, Energy Minister Nikolai Shulginov, Foreign Affairs Minister Sergey Lavrov, and other state officials, suggest they follow a common policy direction and at least outwardly do not show any divergent views. This study has revealed that there was a strong consensus in the direction of Russian energy policy towards Germany and suggests that Russia's gas relations with Germany were shaped by a very narrow and loyal circle of individuals. This structure contributed to reducing potential competition among interest groups. The monopoly structure of the gas industry simplified the drawing up of policy acceptable to all relevant actors.

4.2. Gazprom's Political Influence and Lobbying Power

Gazprom's power in the Russian energy sector can limit the role of government structures in international energy relations. There is no other corporation in Russia with such great political and economic power as Gazprom. The state-owned Gazprom, with its influential leaders, is capable of acting relatively independently, without close involvement by ministerial level structures. The company is large and powerful enough to represent state interests in international energy dialogues.

Vladimir Kreyndel (2015) argues that Gazprom's main decision-makers are pro-government Russian politicians who act in accordance with government instructions, which the author assesses to be far beyond standard "energy diplomacy". The government has strong control over the management of

Gazprom, and sets long-term strategy for the company, furthermore, can promote its own interests at the expense of other shareholders. In principle, the private owners seem to be excluded from the decision-making process. Kreyndel believes that the dominant shareholder role of the government does not motivate managers to act in favour of private shareholders (Kreyndel 2015: 52-55).

Gustafson's (2020) view differs from that of Kreyndel (2015). Gustafson argues that large enterprises such as Gazprom are complex and consist of many parts, each with its own history and culture. In his description, "Gazprom is more like a feudal barony, in which the various departments are led by strong personalities, each of whom has political ties to the elites in power, and the control of the chief executive is imperfect and often contested." The author views a minimum of "three Gazproms": the first one dealing in technical issues, such as production and transportation; the second one being in charge of export and external relations; and the third one, consisting of the central leadership responsible for general policy, security, and relations with the Kremlin. These "three Gazproms" often disagree on political and personal ambitions, and Gazprom's overall response to pressure is driven by behaviours and complex interactions between the three. According to Gustafson, this is the reason why Gazprom tends to be slow to respond to pressures for change, with the exception of its activity as a trader, where Gazprom demonstrates high flexibility (Gustafson 2020: 281).

Although Gazprom is considered a commercial company, it has never been able to act truly independently (Jörg Kirsch. BMWi. Author's interview. September 2, 2020; Ilya Zaslavskiy. Free Russia Foundation. Author's interview. April 18, 2020). On the other hand, Gazprom receives government support in international disputes, such as disagreements over prices or when the European Commission (EC) investigates its activities; this compensates for its dependence on the government. The appointment of Gazprom's management through the Kremlin has strengthened the interaction between Gazprom and the government.

Gazprom's large role in German-Russian gas relations was noticeable in the commercial part of the relationship. It was Gazprom that was engaged in gas trading and acted as the official "face" of Russia in its gas deals with Germany. Gazprom had strong political contacts in Germany, which ensured its direct contact with those involved in gas trading policy. Political involvement in gas deals mainly worked for the good of German business, as there were issues in trade relations with Russia that could not be resolved within the business community (Jörg Kirsch. BMWi. Author's interview. September 2, 2020).

Russia is dominated by a culture of informal political ties, which makes it difficult to regulate lobbying at the legal level. Pavel Kanevskiy (2015) views lobbying in Russia primarily as a power-business dyad (Kanevskiy 2015: 122). That is why Russia's political culture "requires" lobbying to take place "behind closed doors" (Svyatets 2016: 16). Shevtsova's (2006) theoretical assumption is relevant here: "The more personalized power becomes, the more influential the informal networks." (Shevtsova 2006: 2). This is a difference between German and Russian lobbyists. The Russian energy lobby is less visible. Moreover, in the field of natural gas trading, the goals of domestic economic groups and the Russian government almost completely coincide. Since energy-related decisions in Russia are made within a small elite circle, which is ultimately approved by the president, effective lobbying is carried out with the involvement of the president's inner circle.

In lobbying for the NS pipeline network projects, Gazprom's large financial capabilities were involved. This lobbying was intended to indirectly influence political views of German energy decision-makers and to shape Germany's foreign policy towards Russia in a favourable direction. According to some authors, the company was active in and around RWE and E.ON Ruhrgas operations and in North Rhine Westphalia (e.g. Feifer 2011, Szabo 2015: 77, Popławski 2016). Gazprom lobbyists were also well represented at the EU level to promote cooperation on Russian gas supplies. This lobbying was mainly carried out through well-established contacts with advisory boards, government relations departments and through consulting companies that supported Gazprom in maintaining its corporate reputation (e.g. *AALEP* 2017, German fossil-fuel industry representative. Author's interview. January 25, 2021). Former Bundestag member Marieluise Beck considers that the way Gazprom combines politics and business is different from other companies. Beck believed that the leaders of the European companies that had profitable trade agreements with Russia tended to lobby in favour of Russian policy, which ultimately weakened the EU, allowing Russia's interests to dominate (Beck quoted by Feifer 2011).

Achim Pollmeier & Christina Zühlke (2018) claim over 60 high-level meetings between Germany and Russia in preparation for the NS2 project involving Gerhard Schröder, Matthias Warnig and Alexey Miller (Pollmeier & Zühlke 2018). A study by Christian Scheweppe and Adrian Arab (2017) also speaks of frequent meetings between German politicians and Gazprom: "It is remarkable how open the doors of German politicians have been for that company in particular." The authors argue that under the official label of discussing "energy and climate policy", the parties actively discussed the NS2 project at meetings with the participation of high-ranking German politicians and Alexey Miller of Gazprom (Scheweppe & Arab quoted by *Clean Energy Wire* 2017).

The main objective of Gazprom’s lobbyists was lifting of Western economic sanctions against Russian companies. But in terms of lifting the sanctions, lobbying served only as an “extra instrument”, while the solution fell into the realm of politics (AALEP 2017). In his analysis of lobbying for NS2 in the United States, Timothy Gardner (2020) found that only limited details of lobbying were disclosed. According to Gardner, NS2 lobbyists had registered under the 1995 *Lobbying Disclosure Act*, which allows lobbyists for foreign companies or individuals to release limited information unless their work is for the benefit of a foreign government. The author considered this limitation an obstacle to tracking the exact path of NS2 lobbyists (Gardner 2020). Washington-based OpenSecrets estimated Gazprom’s lobbying spending in the United States on behalf of its subsidiary Nord Stream 2 AG in 2021 at \$3,290,000. This estimate was based on data from the Senate Office of Public Records (*OpenSecrets* 2022). According to OpenSecrets, Nord Stream 2 AG spent millions of dollars on lobbying through hired American firms to target various U.S. government entities. Roberti Global was the top beneficiary of NS2 lobbying. Table 4 shows the amounts spent by Nord Stream 2 AG on lobbying U.S. government entities through the respective hired firms between 2018 and 2021.

Table 4. Amounts spent by Nord Stream 2 AG on lobbying U.S. government entities, 2018-2021.

Source: OpenSecrets n.d.

Lobbying firm	2018 (\$)	2019 (\$)	2020 (\$)	2021 (\$)
Roberti Global	1,620,000	2,050,000	2,750,000	2,420,000
BGR Group			720,000	870,000
SMW Partners	270,000			
Hawksbill Group	240,000			
Sweeney & Associates	30,000	120,000	160,000	

The Ukrainian crisis of 2022, which led to new and tougher sanctions against Russia, including against Nord Stream 2 AG, completely changed the support for the NS2 project. Lobbying companies distanced themselves from supporting NS2 (Massoglia 2022, Fuchs 2022). “We are terminating our engagement on the Nord Stream 2 gas pipeline project in compliance with U.S. sanctions,” stated a representative of Roberti Global (Fuchs 2022). At the same time, the termination of the NS2 project eliminated the need for further lobbying.

4.3. Foreign Trade Policy-making in Germany and the Role of the Chancellor

An effective foreign economic policy is one of the main pillars of Germany's foreign policy (*German Federal Foreign Office* 2019 (a)). In Germany, foreign policy decisions are formally developed by the government cabinet. Andreas Werner (2016) believes that many decisions are actually made in cabinet pre-chambers, with participation of governmental parties. This contributes to the time effectiveness of cabinet meetings (Werner 2016: 95). Frank Dohmen et al. (2021) share a close view: "When the German cabinet reaches a decision about a piece of draft legislation, it's usually little more than a formality. The ministers generally only have to raise their hands, since objections and concerns have been cleared in advance by their staff." (Dohmen et al. 2021). In theory, the policy-making process in Germany is centered in the Bundestag (the German Parliament) (Conradt 2001: 172). The Bundestag is not entitled to make direct decisions on foreign policy and security policy issues, of which the deployment of military forces abroad and international treaties are exceptions. As a legislative actor, the Bundestag rather influences foreign policy decisions of Germany (Werner 2016: 94). The German Bundesrat, which is the council of the 16 federal state governments, must be consulted to pass a new law. But in most cases concerning energy policy, a Bundestag majority can override a Bundesrat veto (Wettengel 2018).

The principle of the separation of powers allows for a balanced and efficient system of government in Germany (Lewis et al. 2001: 83). Foreign policy decision-making in Germany is a complex process, involving various ministries. Most German ministries pursue "their own foreign policy", since they have a responsibility for managing international affairs in their own areas of competency (*Ressortprinzip*). On the other hand, this principle, requiring each ministry to be responsible for its own policy area, limits the scope for close cooperation between different ministries in foreign policy decision-making (Werner 2016).

Important executive actors in the development of German foreign trade relations include, but are not limited to *Bundesministerium für Wirtschaft und Klimaschutz* (BMWi) – Federal Ministry for Economic Affairs and Climate Action¹⁰; *Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung* (BMZ) – Federal Ministry for Economic Cooperation and Development; *Auswärtiges*

¹⁰ In the history of Germany, this ministry was called differently, but, despite the name of the ministry, the functions that it performed were very close. Between December 2013 and December 2021, it was called the Federal Ministry for Economic Affairs and Energy; between December 2005 and December 2013 – the Federal Ministry of Economics and Technology; between December 2002 and December 2005 – the Federal Ministry for Economics and Labour; between December 1998 and December 2002 – the Federal Ministry for Economics and Technology; between 1949 and 1998 – the Federal Ministry for Economy.

Amt (AA) – Federal Foreign Office; Germany Trade and Invest (GTAI); and *Bundesnetzagentur* (BNetzA) – Federal Network Agency.

BMWi is largely responsible for international trade. This ministry mainly supports small and medium-sized enterprises by facilitating their access to foreign markets and supporting them in the promotion of exports, as well as in attracting foreign direct investment in Germany (BMWi n.d. (f)). This study found that BMWi was the main state body involved in commercial discussions of the German-Russian gas cooperation. The researcher came to this conclusion from the interviews conducted, as well as by monitoring the activities of various state bodies. The involvement of BMWi in German-Russian gas cooperation was justified by the fact that its responsibilities, inter alia, include energy and environmental policies. A lesser role in international trade lies with the Federal Foreign Office (*German Federal Foreign Office* n.d., Werner 2016: 36, 95), which acts as a “political mentor, networker and adviser” (*German Federal Foreign Office* n.d.). In its involvement in German-Russian gas cooperation, the Federal Foreign Office mainly focused on the political side of the relations. GTAI, supported by BMWi, mainly provides analytical support to small and medium-sized enterprises to help them obtain the information needed to make commercial decisions. But its involvement in German-Russian relations was mainly limited to cooperation in the development of renewable energy sources (GTAI n.d.). The Federal Network Agency dealt with some regulatory issues of German-Russian gas cooperation, such as tariff regulation. These actors influenced energy relations between Germany and Russia to varying degrees although their influence on really major projects like the NS pipeline network projects was limited.

The chancellor is a dominant actor in German politics. The powerful role of the chancellor has its base in the Basic Law (*German Federal Ministry of Justice* n.d.). It is the chancellor who establishes and is responsible for the general guidelines of state policy (*Richtlinienkompetenz*), in the frame of which each minister must conduct the activity of his or her responsibility area (Article 65. Basic Law). In practice, the chancellor determines how much independence ministers will have to determine policies in their own fields (Glaeßner 1996: 30). According to the *Ressortprinzip*, the chancellor is not entitled to directly manage ministries. Furthermore, only in rare cases does the chancellor give formal instructions to ministers (Conradt 2001: 186). The chancellor is accountable to the Bundestag (Lewis et al. 2001: 95). The chancellor’s responsibility for foreign policy mainly lies with crisis decisions (Werner 2016: 95-96). Former German Chancellor Helmut Schmidt suggested the time that the chancellor can devote to foreign affairs is no more than 10 percent of his or her total time (Schmidt quoted by Szabo 2015: 42). Former German Foreign Affairs Minister Joschka Fischer opined about German foreign policy in 2010: “The current foreign policy is essentially foreign economic policy

and follows almost exclusively domestic political considerations.” (Fischer quoted by Szabo 2015: 11). In this statement, Fischer emphasised the importance of integrating Germany’s economic interests into its foreign policy. Tracing Angela Merkel’s policy, it can be argued that during her tenure, much attention was paid to foreign policy, with the importance centralised in different directions – the United States, Europe, China and Russia. Paying large attention to foreign policy, Merkel strengthened Germany’s role in global affairs.

A comparison of German-Russian relations during the chancellorships of Gerhard Schröder and Angela Merkel shows that in the former case, both states were more inclined to cooperate. The NS project was a bright example of Schröder’s policy towards Russia. Schröder (2005) responded to criticism of the NS project: “I am German Chancellor... I have German interests to represent, especially in terms of the security of the energy supply of the German economy... It [the Nord Stream Pipeline] is not directed against anyone, neither the Baltic States nor Poland. But you have to understand that the German Chancellor is responsible for German energy interests.” (Schröder quoted by Gehnen 2008: 50). This Schröder point of view indicates that the NS project was the fruit of pragmatism, not friendship, as portrayed in many studies. It was Schröder and Putin who initiated the Petersburg Dialogue – a bilateral discussion forum aimed at developing relations in many areas between Germany and Russia, as well as strengthening close ties between private sector representatives of both countries. The difference in the approaches to Russia of the two German chancellors was also visible in relation to the 2014 Ukrainian crisis. While Merkel vigorously criticised Russia (e.g. Brown & Chambers 2014, Hill 2014, *BBC News* 2014), Schröder repeatedly voiced his support for Russia and called for the cancellation of sanctions (e.g. *TASS* 2017, Tiede 2019).

Putin (2016) himself assessed his personal relationship with Schröder and Merkel as respectively, friendly and professional. At the same time, the Russian President added that in international relations he is “neither a friend, nor bride or groom”, and acts only in the national interests of Russia (Putin quoted by *Bild* 2016). Schröder’s accession to the post of Chairman of the Board of the Nord Stream AG and of Rosneft after his resignation as Chancellor was only possible because of both leaders’ pragmatism. By offering Schröder a high-level position in the energy sector, Putin aimed to maintain close ties to Germany with the assumption that the former chancellor could still influence events by mobilising his local political network. Compared with the relatively cold relations between Putin and Merkel, Schröder’s powerful German network was welcomed by Russian energy businesses. In his new role in the Russian energy business, Schröder had commercial interests to lobby for Germany’s energy cooperation with Russia. Schröder’s lobbying for the NS pipeline network projects found

support in the interviews for this study, the argument was supported by about 90 percent of those interviewed; and also found in the course of the secondary research that mostly portrays the former chancellor as a highly paid Gazprom lobbyist (e.g. *Clean Energy Wire* 2017, Pollmeier & Zühlke 2018).

Kempfert (2011) argues that there was “no energy policy” under Schröder’s government. The author maintains that “Instead there was a government that protected the energy companies and didn’t regulate the market.” Kempfert also talks of “rapprochement through economic interlocking” – this is how the energy business lobby called the strengthening of commercial ties with Russia, which was supposed to stimulate the latter’s integration into the Western economy (Kempfert quoted by Feifer 2011). This belief provides the basis for assuming the greater role of private business in the development of energy policies, going far beyond the usual influence. The source of the strengthening of the commercial ties between Germany and Russia lay in private business, which intensified its efforts at lobbying under the Schröder government.

Once Merkel became chancellor, Germany’s foreign policy took an Atlanticist turn; she relatively distanced Germany from Russia, a rival of the United States (Yoder 2011: 364, Trenin 2018: 2, 2021). Merkel’s diplomacy was often characterised by a combination of values and pragmatism (e.g. *Global Times* 2012, Patel 2021, Rossiter 2021, Trenin 2021). Jennifer Yoder (2011) viewed Merkel’s diplomacy towards Russia as more formal than Schröder’s (Yoder 2011: 367). Unlike Yoder, Alexander Gabuev (2011) did not observe any significant changes in Germany’s energy diplomacy towards Russia when comparing the policies of the Merkel and Schröder cabinets (Gabuev 2011: 17). Szabo (2015) described Merkel as an “unemotional realist”, who understood “the nature of Russian power, the immutable nature of Russian authoritarianism, and that country’s central importance to Germany” (Szabo 2015: 1). In an interview for this study, Szabo (2020) opined that Merkel’s foreign policy was based not only on her own point of view, but on a collection of viewpoints coming from key actors. Merkel relied on coalitions and took into consideration transatlantic relations when making decisions on Russia (Stephen Szabo. Political scientist. Author’s interview. July 1, 2020). Merkel’s skeptical approach to Russia was “constrained” both by her coalition with the SPD and the business wing of the CDU and the Christian Social Union (CSU) of Bavaria (Szabo 2017: 44). It was Merkel who accepted the extension of the NS project and promoted the maintenance of the close network between the private sector representatives of both states. Despite the Atlanticist orientation of German foreign policy under Merkel, she criticised the U.S. plan for new sanctions (June 2017) against Russia, which targeted EU-Russia energy projects, including NS2 (*Deutsche Welle* 2017).

Merkel's position was based on a pragmatic line aimed at protecting European companies doing business with Russia.

The described foreign trade policy formation in Germany suggests that the personal factor regarding the chancellor plays a crucial role in political considerations, but the chancellor is still not a decisive actor in the formation of foreign trade policy. This leads to a discussion of the role of German political and economic formations in shaping the energy policy towards Russia.

4.4. German Political Parties and German-Russian Energy Relations

In analysing the role of political parties in shaping gas relations between Germany and Russia, the study focuses on the two dominating parties – the CDU and the SPD, as well as the Greens, given their especially strong stance on the energy transition policy and opposition to the strengthening of Germany's cooperation with Russia in the supply of natural gas.

Both the CDU and the SPD have had a significant impact on German energy politics. Merkel's party, the CDU, was the larger of the coalition partners in the 16 years she served as Chancellor beginning in 2005. The CDU and CSU together with the SPD formed a grand coalition in the First, Third and Fourth Merkel cabinets, respectively, 2005-2009, 2013-2018 and 2018-2021. For the research period, the CDU was the major "catch-all party"¹¹ of the centre-right in German politics, while the SPD belonging to the centre-left. As of August 2021, the CDU and the SPD had respectively, 245 and 152 out of 709 parliamentary seats (*Deutscher Bundestag* 2021). At the time of completion of this study, with the formation of a new coalition government in December 2021, the figures changed in favour of the SPD, which won 206 seats, while the CDU/CSU gained 197 seats, and the new coalition partners Alliance 90/The Greens and the Free Democratic Party (FDP) won 118 and 92 seats respectively out of 736 parliamentary seats (*Deutscher Bundestag* 2022 (a)).

Political parties in Germany can influence the course of foreign trade policy. Roland Sturm (1996) considers political parties to be influential independent rule makers (Sturm 1996: 118). The issues handled by parties include inter alia nomination of candidates for parliaments, formation of parliamentary groups in the parliament, election of the government, ministerial appointment, adoption of laws and budget, administration control, legal policy determination (Von Alemann 2003: 82).

¹¹ Termed by Otto Kirchheimer, due to the fact that the CDU from its early stages was open to a large variety of viewpoints (Conradt 2001: 113).

German parliamentary party groups can introduce legislation. Patricia Hogwood (2003) compares a party group with a “mini-parliament”, where party policy and legislative debates occur and argues that “real” parliamentary decisions are made in committee (Hogwood 2003: 156, 169).

According to a study by Joshua Posaner (2016), right-wing governments highly value security in energy trade, while left-wing governments tend to consider lower prices as a priority. Thus, in order to achieve a secure energy supply, right-wing governments prefer diversification, but left-wing governments view closer political links with the dominating energy supplier as a means to gain possible discounts in prices (Posaner 2016: 267). This standpoint was applicable to German-Russian gas relations. The CDU sought to diversify energy supply sources so as not to become too dependent on any single supplier. In contrast, the close ties between the SPD and the fossil fuel energy sector, as well as the historical background of this formerly Marxist-leaning party (at least into the 1960s), made it more supportive of commercial cooperation with Russia. The party did not focus as strongly on political or ideological concerns as did the CDU.

Among Germany’s political platform the CDU has been very powerful over the last several decades. It is worth noting that five of the eight German Chancellors, who led the Federal Republic between 1949 and 2021 (K. Adenauer, L. Erhard, K.G. Kiesinger, H. Kohl and A. Merkel), represented the CDU. In terms of foreign policy, the CDU is a supporter of European integration and close relations with the United States, which affects the party’s approach to Russia. Nevertheless, at least until the Russian invasion of Ukraine in early 2022, the CDU believed in economic grounds to cooperate with Russia. The CDU/CSU fraction for the period of 2009-2013 and 2013-2017 placed a high priority on cooperation with Russia (*CDU* 2009: 85-86, *CDU* 2013: 74). But the government programme for 2017-2021, released after the 2014 Ukrainian crisis, focused on Russia’s “aggression” against Ukraine, rather than the importance of cooperation with Russia (*CDU* 2017: p.55). The CDU expressed a willingness to cooperate with Russia, but not at any price. For example, the then CDU leader Annegret Kramp-Karrenbauer (2018), referring to the political opposition to the NS2 project, argued that ending political support for the construction of the pipeline would be too radical, but in response to Moscow’s aggressive policy, Berlin could have limited the volume of natural gas supplied through this pipeline (Kramp-Karrenbauer quoted by *BBC News* 2018, *Deutsche Welle* 2018 (a)).

The SPD was one of the strongest advocates of striving for better relations with Russia. The roots of the SPD’s pro-Russian stance were found in Brandt’s *Ostpolitik*. Szabo (2015) believed that the SPD’s advocate role was due to its “cultural and political affinity to Russia and a distancing from America” (Szabo 2015: 36). German political scientist Jörg Himmelreich characterised the SPD-

Russia ties at the time as follows: “The Social Democratic Party has a long tradition of promoting a policy toward Russia that is driven by a deep inclination to understand and accept quickly Russia’s deviation from Western models of democracy, human rights and civil society.” (Himmelreich quoted by Shevtsova & Kramer 2012: 114). When German politicians loudly criticised Russian government politics, the SPD, according to Shevtsova & Kramer (2012), urged Germany “not to teach” Russia and follow on the basis of an “equal exchange of views” (Shevtsova & Kramer 2012: 114-117). A veteran member of the SPD, Hans-Ulrich Klose once expressed his belief that it is impossible for Germany to solve its energy problems without Russia’s participation. Klose argued that “antagonizing the Kremlin with criticism and isolation” was not a solution and that the interdependence between Germany and Russia could limit Russia’s ability “to sneak out and do something crazy” (Klose quoted by Feifer 2011). Politics and business are more closely linked in North Rhine-Westphalia, the heart of the SPD and a large industrial center where RWE and E.ON operate (Feifer 2011, Szabo 2015: 38). The SPD received a large amount of electoral support from the large cities of northern Germany and the former coal-mining and steel producing Ruhr region (*Der Spiegel* 2009), which most likely influenced its positive stance on fossil energy, as well as Germany’s international cooperation, including with Russia in the field of fossil fuels.

One example of the SPD’s positive stance on Russian natural gas imports was a speech in the Bundestag on February 13, 2019, by Bernd Westphal, Spokesman of the working group on economics and energy of the SPD, in which he referred to NS2 as a “worthwhile project” both economically and environmentally. While highlighting the necessity of greening gas, Westphal expressed his belief in the need for NS2 gas pipeline to ensure Germany’s energy security. In his speech, Westphal considered the politisation of the NS2 project inappropriate and highlighted his belief in the important contribution that gas makes to the German industry: “That is very important, at least for us as the SPD.” (*Bundestag TV* 2019).

The SPD maintains close ties with German economic actors and encourages close collaboration with the private sector. In 2015, the SPD founded an independent entrepreneurial professional association – the Economic Forum of the SPD (*Das Wirtschaftsforum der SPD*). According to the Forum, it has no financial, operational or structural connections to the SPD beyond the common canon of values. Among the specialised forums organised by this association are the forum on energy and climate; the forum on resources and sustainability; and the forum on Europe and foreign trade, which ensured collaboration between politics and economics in the relevant areas. The energy sector is one of the many sectors of the German economy represented at the Forum, therefore German-Russian gas relations were not at the center of its attention. But since the Forum provides exchange of views and

cooperation between its private members and members of parliament from the federal, state and European levels as well as high-ranking ministry and party representatives, it could play an important role in advancing the interests of the German gas business. In a press release issued in early 2019, the Economic Forum of the SPD voiced the Executive Committee's views on the NS2 gas pipeline, considering it as an important contribution to the security of the European energy supply (*Wirtschaftsforum der SPD* 2019).

The Greens are strong advocates of renewable energy development. German cooperation with Russia on gas supply was seen by the Greens as an obstacle to renewable energy development (e.g. Kemfert 2020 (a), *Phoenix* 2020, Buchsbaum 2021). At the same time, the Greens have taken a critical stance towards Russia's domestic and foreign policy (e.g. Gotev 2018, Höhne 2020, *Deutsche Welle* 2021(a), Solomon 2021). In 2018, the Greens called on EU governments to stay away from the FIFA (the Fédération Internationale de Football Association) World Cup taking place in Russia in order to protest against Russia's military actions in Syria and Ukraine (Gotev 2018). The opposition of the Greens to fossil fuels, as well as Russian domestic and foreign politics, coupled with the growing influence of the Greens, made them a strong opponent of the German-Russian gas cooperation. Still, despite their support for sanctions against Russia and accusing Russia of violating international law (*Grünes Europawahlprogramm* 2019: 120), the Greens have shown a willingness to cooperate with Russia when it comes to issues such as supporting democracy or civil society initiatives (*Grünes Europawahlprogramm* 2019: 130-132).

The NS2 project was a focus of the Greens' criticism of Germany's Russia policy, which they considered incompatible with climate policy. The Greens argued that with the extension of the NS, Germany "perpetuated" its dependence on Russia (*Clean Energy Wire* 2018). The then co-leader of the Greens Annalena Baerbock (2018), who is serving as Foreign Affairs Minister at the time of this writing, did not consider NS2 a purely economic project. Claiming that the continuation of the "Gazprom-pipeline" was undermining sanctions against the Russian government, Baerbock called the project an "affront" to Germany's Eastern European neighbours (Baerbock quoted by *Clean Energy Wire* 2018). The European Greens also opposed the NS2 project, sharing the ideological views of their German counterparts. The then Co-chairman of the European Green Party, Reinhard Bütikofer (2018), called for the termination of the NS2 project, terming it "environmentally detrimental, economically superfluous, politically divisive between EU member states" (Bütikofer quoted by *European Greens* 2018).

The Greens also took a critical stance towards the NS2 gas pipeline in parliamentary discussions and political debates. For example, the opinion expressed by Baerbock during the discussion of the NS2 project in the Bundestag on September 18, 2020 was completely contrary to the views of CDU representative Jens Koeppen and SPD representative Manuela Schwesig. In her speech, Baerbock stated that NS2 did not “think and act in a European way” and undermined European climate and energy goals. Citing political aspects such as military aggression in Russian foreign policy, and possible damage of NS2 to European solidarity, Baerbock called for an end to political support for the NS2 project. In contrast, Koeppen and Schwesig, in their speeches were supportive to the NS2 project, referring to gas as a “bridge technology” and a “transition technology”, respectively. Referring to the importance of gas in the German energy transition and the fact that the construction of the NS2 pipeline was 97 percent complete at the time of the discussion, both speakers explained the importance of the NS2 pipeline in terms of economics and energy security (*Phoenix* 2020).

The attitude towards the NS2 project of the parties outside the grand coalition, such as Die Linke, the FDP or Alternative für Deutschland [Alternative for Germany] (AfD), was generally positive. This positive stance was reflected in the parliamentary debates, which are kept in the Bundestag protocols or made open for public in video format; in parliamentary questions addressed by these parties to the Bundestag; in interviews and public speeches of representatives of these parties. One example was the heated debate between Dietmar Bartsch, Co-chair of the Die Linke parliamentary group and Jürgen Trittin, a member of Alliance 90/The Greens at the NS2 debate in the Bundestag in September 2020. This debate showed Bartsch’s supportive stance on the completion of the NS2 pipeline, which was countered by Trittin (*FOCUS Online* 2020). The proposal to the Bundestag dated September 11, 2020 (19/22552) by the AfD parliamentary group was another example of the positive attitude towards the NS2 project. In its proposal, the AfD parliamentary group called on the federal government to unconditionally commit itself to the realisation of NS2 and to support the speedy completion of the pipeline with all the means at its disposal at national, European and international levels. The AfD parliamentary group explained the basis of this proposal from economic and environmental point of view (*Deutscher Bundestag* 2020). The European politician interviewed for this study believed that it was the ideological similarities between the AfD and Russia’s ruling United Russia party that led to the AfD’s support for the NS2 project. The interviewee saw a similarity in the commitment of both parties to nationalisation (European politician. Author’s interview. March 3, 2021). Observations of the NS2 discussions in the Bundestag suggest that prior to the Russian invasion of Ukraine, the NS2 pipeline was welcomed by a majority in the parliament. With the exception of the Greens, the project was generally regarded by all parties as an important contribution to the security of supply in Europe, although the parties differed in their degree of support for NS2.

Following the strong showing of the SPD in the Bundestag election of September 2021, a coalition between the Social Democrats with the Greens and the liberal FDP was formed, which Jen Kirby (2021) described as an “odd political marriage” (Kirby 2021). At the head of the Federal Foreign Office, Baerbock initiated a human rights-oriented foreign policy and strengthened international cooperation on climate change mitigation. Robert Habeck of the Greens became Vice Chancellor and Minister for Economic Affairs and Climate Action, aiming at a faster political move towards renewable energy and a challenge to Germany’s international cooperation on fossil-fuel imports. At the same time, the appointment of Olaf Scholz, representing the SPD, to the post of Chancellor could theoretically indicate the dominance of fossil fuel interests in Germany’s relations with Russia. But Russia’s military invasion of Ukraine forced the new government to go into crisis management mode and to discard policies of the past. Since the start of this coalition government coincided with the start of the 2022 Ukrainian crisis, it is difficult to predict what this coalition government’s policy towards Russia would have been in practice in the absence of the crisis, but it is safe to surmise that at least it would have prevented the complete cessation of the NS2 project.

4.5. German Interest Groups and Energy Business Lobby

Interest groups play a significant role in German politics. Wolf-Dieter Zumpfort (2007) defines interest representation as “a key part of political decision making processes and thus a constitutive element of German democracy” (Zumpfort 2007). German law allows interest groups to exert influence in decision-making processes, especially regarding the legislative details of policy. Interest groups are constitutionally empowered to lobby parliament to pass favourable policy regulations (Sturm 1996: 117, Lewis et al. 2001: 130, Zumpfort 2007). Sturm (1996) considers interest groups to be sometimes the “virtual authors of bills” in Germany (Sturm 1996: 123). Before bills reach parliament, all relevant interest groups have a chance to present their proposals and alternative policy options (Sturm 1996: 123-125, Zumpfort 2007).

The more political influence interest groups can obtain by getting access to the ministerial bureaucracy, the more influence they can wield over the design of legislation (Conradt 2001: 131). In Germany, parliamentary groups introduce legislation (Hogwood 2003: 156). Interest groups gain access to parliament by being invited to present evidence to parliamentary committees. This is not intended to support or prevent the adoption of legislation but provides opportunities to modify legislation in ways more suitable to an interest group. It is done to “educate” politicians about various

issues involved in proposed policy changes (Roberts 2003: 119) and to strengthen democracy in decision-making (Raitbaur 2021: 181).

Geoffrey Roberts (2003) observes a kind of corporatist model in Germany, in which the interests that lobbyists follow are intended to benefit specific groups engaged in the process. The policy-making process under the corporatist model is considered non-transparent, as the organisations making decisions are not publicly accountable (Roberts 2003: 118-122). Szabo (2015) argued that interest group lobbying in favour of cooperation with Russia involved a large number of former diplomats and business representatives with a stake in the Russian market. A number of Bundestag members were representing German business interests on key committees dealing with energy policy and Russia (Szabo 2015: 50). A similar view was shared by Philemon Sakamoto (2016), who argued that German NS2 policy was politically influenced by the two major parties (Sakamoto 2016: 22), i.e. the SPD and the CDU.

Observing the hierarchical nature of German interest groups, David Conradt (2001) and Aleksandr Sherstobitov (2020) argue that interest groups can influence the selection of parliamentary candidates, which is explained by the dependence of parties on interest groups for electoral and financial support¹² (Conradt 2001: 131, Aleksandr Sherstobitov. Political scientist. Author's interview. August 31, 2020). A politician is likely to take the side of lobbyists in order to win electoral support. When big business lobbyists promote their interests in Germany, they also try to reinforce these interests by mobilising electoral support (Aleksandr Sherstobitov. Political scientist. Author's interview. August 31, 2020). The European politician interviewed for this study claimed there were close ties between the German private fossil fuel sector and the major German political parties, the CDU and especially the SPD. The interviewee however noted that neither Wintershall nor Uniper, who financed the NS2 pipeline, made donations to German political parties (European politician. Author's interview. March 3, 2021). At least, there are also no publicly available official data on donations to political parties from these companies. After a long-standing disagreement, the CDU, CSU and SPD agreed to create a lobby register in order to achieve greater transparency in lobbying activities (Hänel 2021). On January 1, 2022, the German Lobby Register Act (*Lobbyregistergesetz – LobbyRG*) came into force, which aims to ensure public access to the database of meetings between interest groups and political actors, thereby increasing the transparency of lobbying.

¹² The major source of funding for German political parties are public funds, other sources include contributions by members and parliamentarians, donations and income from assets (Lewis et al. 2001: 110).

The German private energy sector has strong ties to the federal government. German industry has an explicit autonomy, within a framework of a long-term and institutionalised model of strategic interaction with the state, what Werner Abelshauser (2005) calls a “cultural code” of economics, leading to an “organized capitalism” (Abelshauser quoted by Grant 2011: 65). Germany supports attempts by local companies to develop and secure overseas markets with a large number of instruments intended to stimulate foreign trade and investment. There are shared responsibilities between the state and the private sector (*BMW* n.d. (f)). There is a highly developed system of cooperation among German companies operating abroad, as well as between those companies and the German Federal Foreign Office (Wood 2011: 9, German fossil-fuel industry representative. Author’s interview. January 25, 2021). The business lobby, covering the industrial and commercial sectors, as well as the political lobby, which until the 2022 Ukrainian crisis defended the interests of Russia in Germany, originated a long time ago, with Brandt’s *Ostpolitik* (Shevtsova & Kramer 2012: 114).

The Big Four – E.ON (now Uniper), RWE, EnBW and Vattenfall, which were energy oligopolists at the national level, are still influential players in the gas sector. Wintershall, with close links to Gazprom, is another important player. Because of their long-standing lobbying history, the Big Four were highly rated for their regular and personal contacts to politicians. Kathrin Sühlsen and Matthijs Hisschemöller (2014) believe that the Big Four “possess the right ‘channels’ and know exactly whom, when and in what way to contact”, enjoying the privilege of personally contacting the most influential decision makers, such as chancellor and ministers. These companies are able to spend large funds on lobbying. Through their representative offices in Berlin, they attracted many lobbyists and organised significant political events (Sühlsen & Hisschemöller 2014: 322-324). Environmental Action Germany (*Deutsche Umwelthilfe* – DUH) (2020) claims at least 62 meetings promoting the NS2 project between the gas industry lobby and German Government representatives between 2014 and 2017, often at ministerial level (DUH 2020).

The Federation of German Industries (*Bundesverband der Deutschen Industrie* – BDI) is politically very active and visible in bringing the “voice of German industry” into national politics (BDI 2021 (a) & (b)). At the time of this writing, the BDI represented about 40 industry associations and more than 100,000 enterprises with around eight million employees (BDI 2021 (a)). The BDI is closely linked to the government and can effectively lobby business interests in Germany’s national and international politics. The BDI evaluates business related legislation proposals at all stages of policy-making, including during ministerial drafting and parliamentary debate. The federation also monitors closely policy implementation (Conradt 2001: 133, German fossil-fuel industry representative.

Author's interview. January 25, 2021). The BDI with its considerable financial resources and broad membership is in a strong position to influence the course of the government's economic policies. In 2021, the organisation allocated a budget of €7,480,001 to €7,490,000 for advocacy, which involved up to 120 employees (*Deutscher Bundestag* 2022 (b)). But the study found no hard evidence of BDI lobbying for energy trade with Russia, although the BDI, in an article published after the Russian invasion of Ukraine in 2022, promoted "change through trade". While acknowledging the lack of democratic values in Russia, the BDI also emphasised Russia's importance in German trade and investment flows (*BDI* 2022). BDI head Siegfried Russwurm (2022), while calling for independence from Russian energy imports as quickly as possible noted: "With his war of aggression against Ukraine, Putin is violating all the rules of the international community and ignoring international law. However, the view of the world is differentiated: There are more autocratic states than western-style democracies. If the export nation Germany were to decide that we don't want to do business with any of these countries, then things would be pretty tight for our country.... There is little sense in punishing yourself more severely than the aggressor." (Russwurm quoted by Dams & Vetter 2022 (translated by the author)). This point of view highlights BDI's "business first" stance towards Russia.

The German Eastern Business Association (*Ost-Ausschuss der Deutschen Wirtschaft*), formed as a result of the merger of the Committee on Eastern European Economic Relations (*Ost-Ausschuss der Deutschen Wirtschaft*) and the Eastern Europe Business Association of Germany (*Osteuropaverein der Deutschen Wirtschaft*), is the major regional initiative of the German economy for 29 countries in Central, Eastern and Southeastern Europe, the South Caucasus and Central Asia. Members of this association can take advantage of assistance and active support in doing business in the partner countries of the association. The German Eastern Business Association issues and supports several publications, including *Ost-Ausschuss Informationen*, the yearbook *Mittel und Osteuropa-Jahrbuch*, the *OstContact* magazine, country updates, position papers and dossiers, as well as a monthly newsletter; and organises about 100 events a year in various formats, the main one being the annual Eastern European Economic Conference. Russia occupied an important place in the activities of the German Eastern Business Association. Despite the Russian invasion of Ukraine in 2022, the association still lists German-Russian dialogue and cooperation among its projects but acknowledges that its activities in Russia have been largely suspended (*German Eastern Business Association* n.d.). Interviews for this study and secondary research indicate that the German Eastern Business Association did not "fight" for the import of Russian gas, although it was one of those who advocated the maintenance of gas cooperation with Russia. The association has close links with both Wintershall and Uniper. In 2019, Wintershall Dea CEO Mario Mehren became the spokesman for the Russia

working group at the German Eastern Business Association, which testifies to the ideological proximity and shared goals between private gas importers and this association in relation to Russia.

Bergschneider (2020) claims commercial actors played the lead role in the NS pipeline network projects. He was among those who participated in the discussion of the NS project and its routing plan. Bergschneider believes that representatives of commercial interests have always been the driving force behind positive achievements in the German gas business: “If it moves forward, it is the matter of commercial people, if it stops, it is the matter of politicians. Commercial people push the acceleration, like the gas pedal in a car, while politicians push the break.” (Claus Bergschneider. Former Gazprom Germania Chief Representative. Author’s interview. September 3, 2020). Jörg Kirsch (2020) of BMWi also acknowledged that major role played by commercial companies in forging Germany’s gas deals with Russia. The German government, in turn, allowed the respective companies to lead this course. According to Kirsch, political engagement was only necessary when the transaction went beyond the commercial realm to the international level. Depending on the area of concern, the levels of political participation could also differ. The expansion of representative structures in Germany allowed Russia to deepen professional contacts with Germany, which in turn influenced the participation of a wider range of players. For example, after the opening of a representative office in Germany, Gazprom Export began to deal directly with the Federal Network Agency, and not with BMWi, on such non-political issues as tariff regulation (Jörg Kirsch. BMWi. Author’s interview. September 2, 2020).

Lobbying for Russian gas in Germany was notable for its efficiency. Cooperation with Gazprom was beneficial for German companies, particularly for its major partners in the NS project – E.ON and Wintershall. Gazprom’s leading German partners benefited from participating in several Russian assets. Wintershall controlled 34.9 percent shares in Severneftegazprom, which held the licence for the Yuzhno-Russkoye gas field, the main supplier of the NS pipeline. In turn, in addition to gas supplies to Germany, Gazprom participated in Germany’s natural gas distribution system. Wingas – a joint venture between Gazprom and Germany’s Wintershall, and the Rehden underground gas storage facility, the largest in Europe were examples of the deepened commercial bonds between Germany and Russia.

Germany’s support for the NS2 project was underpinned by close business ties between Germany and Russia. Close ties between their business sectors were found not only in the energy field, but also in the financial sector. Gazprombank was a major financial entity having close links with German financial institutions (Ilya Zaslavskiy. Free Russia Foundation. Author’s interview. April 18, 2020).

For the period covered by this study, E.ON (now Uniper) and Wintershall played a central role as commercial actors driving German-Russian gas relations. Nineteen out of 31 respondents interviewed for this study supported this view, driven by the participation of these companies in funding the NS and NS2 projects. Uniper and especially Wintershall had close ties to Gazprom, which came from their mutual business interests. Konrad Popławski (2016) notes that the NS2 lobbying efforts by the German companies involved were mainly focused on Baden-Württemberg, Bavaria, and North Rhine-Westphalia, which are the most economically powerful. These economically strong governments were better suited to support the NS2 project, presenting it as one strengthening Germany's energy security and ensuring competitiveness of German industry due to access to energy (Popławski 2016).

According to the Bundestag, the two financial backers of the NS2 pipeline, E.ON/Uniper and Wintershall, held a total of at least 18 meetings with senior representatives of *Bundeskanzleramt* (Federal Chancellery), BMWi and Federal Foreign Office on the issues of energy policy with a major focus on the NS2 project between January 2015 and December 2017 (*Deutscher Bundestag* 2017). These meetings played a significant role in strengthening government support for the NS2 pipeline in the early years of its construction. The mentioned companies succeeded not only in lobbying their interests at the government level, but also had the opportunity to influence public opinion using their large financial capabilities. This influence could be in the form of sponsoring energy events and dialogues or scientific and expert research. Sponsoring major geopolitical and energy events allows private companies to advertise their own projects and interests in a favourable form, as well as reserve keynote speeches for relevant individuals highlighting their goals. While sponsoring energy events may have an indirect influence on public opinion, sponsoring scientific or expert research may jeopardise the neutrality of the study, thereby directly influencing the results of the study in favour of the sponsor. This is not to say that stakeholder-sponsored research is in all cases affected, but mild pressures influencing research results are not excluded.

One such case was criticised by LobbyControl when the German Energy Agency (*Die Deutsche Energie-Agentur – dena*) allowed its 2021 study on climate neutrality to be sponsored by the companies whose interests could affect the research results. The *dena* study was intended to provide policymakers and private energy companies with specific recommendations on the course to take. LobbyControl argued that under the label of “partners”, the companies sponsoring this study were able to exert influence over the study results in their favour and called it “instrumentalisation of science by corporate interests” (*LobbyControl* 2021). Both Wintershall and Uniper were on the list of *dena*'s sponsors in 2021 (*dena* 2021).

These major gas companies also participated in many other sponsorship projects. Uniper, for example, sponsored the annual German Unity Day event hosted by the Consulate General in St. Petersburg, Russia between 2016 and 2019 (*LobbyPedia* n.d.). It is worth noting that Uniper has the highest lobbying expenses in Germany, whose advocacy budget in 2021 amounted between €2,830,001 and €2,840,000 (*Deutscher Bundestag* 2022 (c)). Wintershall is also strong enough to lobby its interests at a high level. The company is a member of 18 organisations (*Deutscher Bundestag* 2022 (d)), many of which have some influence on German energy policy. Wintershall's membership in these organisations allows it to join forces with other fossil fuel companies to increase its influence on policy-making and public opinion. The close and long-term economic cooperation based on mutual benefit between Wintershall and Gazprom made the former a supporter and defender of the interests of the latter in Germany. Wintershall's strong position in the German energy sector and its close ties to the government greatly contributed to promoting Gazprom's interests in the German gas market (German fossil-fuel industry representative. Author's interview. January 25, 2021).

As argued by Ulrich Müller (2018) of LobbyControl, at a time when there was no lobby register in Germany, it was particularly easy for lobbyists to appear in public as allegedly neutral experts and to conceal their true function (Müller quoted by Götze 2018). For example, Professor Friedbert Pflüger, former state secretary of the CDU, was considered one of the important lobbyists for the NS2 project in Europe. According to some sources, Pflüger in his capacity as a scientist and a private-sector consultant contributed to the good evaluation of the NS2 project (e.g. Pollmeier & Zühlke 2018, Götze 2018). Nord Stream 2 AG was a customer of Pflüger International GmbH¹³, a consulting firm established by Pflüger in 2009. Pflüger International GmbH was officially registered in the Brussels lobby register in 2018, although, according to Susanne Götze (2018), it had previously held numerous negotiations with EU representatives¹⁴ (Götze 2018). Friedbert Pflüger is also a prominent figure in the energy debate in Germany. He is the organiser of the *Energiegespräche im Reichstag* (Energy Talks in the Reichstag), to which well-known politicians and entrepreneurs are invited; the Director of the European Centre for Climate, Energy and Resource Security; the Chairman of the Supervisory Board of the lobby organisation *Zukunft Gas* (Zukunft Gas 2021 (a)). Pflüger himself explained his support for NS2: “We should, like the federal government, see Nord Stream as a business case and politicise it less.” (Pflüger quoted by Pollmeier & Zühlke 2018 (translated by the author)).

¹³ When Holger Bingmann joined the company as a partner in 2020, the company was renamed Bingmann Pflüger International GmbH.

¹⁴ Entry in the EU lobby register is voluntary for interest groups. But EU commissioners and their cabinet members are only allowed to meet with registered interest groups (Götze 2018).

Founded in 2013, the lobby organisation Zukunft Gas [Future Gas] was called Zukunft Erdgas [Future Natural Gas] until 2021. The organisation renamed itself with the intention to move away from the pure image of the fossil fuel natural gas in favour of cleaner energy options. Zukunft Gas lists among its activities the promotion of natural gas production and distribution, including measures in the areas of marketing, sponsoring, advertising, public relations and political communication as well as support for scientific work. As of January 2022, the association had 136 members, including such influential companies as Wintershall, Uniper, Wingas, Verbundnetz Gas and others. According to the Bundestag lobbyregister, in 2021 Zukunft Gas spent between €410,001 and 420,000 on advocacy (*Deutscher Bundestag 2022 (e)*), while it is not specified what part of the mentioned amount was spent on gas lobbying. The association has various lobbying tools, such as conducting nationwide campaigns, publishing magazines, commissioning research in relevant areas, which could serve as a valuable tool in maintaining the acceptability of fossil fuels in politics and society. Nina Katzemich (2021) cites a study carried out by *DBI Gas- und Umwelttechnik GmbH* on behalf of Zukunft Erdgas in 2016, which calculated the CO₂ footprint of natural gas for the period 2015-2018. The study, according to Katzemich, was controversial, as it came to significantly lower values than a study commissioned by the EU Commission in 2015 (Katzemich 2021). This discrepancy could be linked to lobbying for gas. The gas magazine “g” published by Zukunft Gas with the support of Wintershall and Verbundnetz Gas plays a role in shaping public (at least in the energy sector) opinion about gas. With the transition to sustainable energy, natural gas-based blue hydrogen is becoming a source of income for the gas industry, and therefore a new area for lobbying by Zukunft Gas. In 2021, Zukunft Gas ran a nationwide campaign called “Mit Gas geht’s [It works with gas]”. With this initiative, the association set out to show how climate protection can be realised with gas, focusing on the potential of natural gas, biogas and hydrogen for the energy transition (*Zukunft Gas 2021 (b)*). Zukunft Gas showed its supportive stance in relation to the hydrogen made from natural gas when the association as part of a coalition of fossil fuel entities addressed a letter to the EU Commission President Ursula von der Leyen, in which the addressers called for a hydrogen strategy to include all types of hydrogen (*Politico 2020*); and in the letter from the German gas and heating industry about the role of hydrogen in the heating market addressed to the Federal Minister of Economics and Energy Peter Altmaier, where Zukunft Gas was one of the five signatories (*ASUE 2020*). The advisory board members of Zukunft Gas include influential individuals who have a big say in German energy policy. This could make it easier for this association to promote the interests of its fossil fuel members at the government level. The board of directors of the association also includes Gundolf Schweppe, Chairman of the Board of Uniper Energy Sales GmbH and Thilo Wieland, member of the Executive Board of Wintershall Dea GmbH, which points to a certain harmony and shared goals between Zukunft Gas

and the German importers of Russian gas, suggesting possible support for the NS2 project by this association.

The Russian-German Raw Materials Forum founded in 2006 as a dialogue platform to intensify relations between Germany and Russia in the raw materials industry could be seen as one of the lobbying measures to maintain Germany's gas cooperation with Russia. Between 2007 and 2019, the forum held 12 conferences in different cities of Germany and Russia with the participation of high-level politicians. The forum ensured close interaction between politics, business and science, thereby expanding and deepening cooperation ties between the two states (*Rohstoff-Forum* n.d.). It is worth noting that one of the founders of the Russian-German Raw Materials Forum is Verbundnetz Gas, which had close cooperation ties with Gazprom, including joint ownership of the Katharina underground gas storage facility, established in Peissen, near Bernburg, Saxony-Anhalt in 2011, and long-term gas supply contracts. Between 1991 and 2015 Gazprom was one of the shareholders of Verbundnetz Gas, which indicates the joint incentive of the parties to promote the interests of the Russian gas business in Germany. Matthias Warnig, one of the most influential Russian gas lobbyists, was represented on the Supervisory Board of Verbundnetz Gas between 2010 and 2015, which enhanced the gas lobbying strength of this company and the forum it created.

Political events and market developments over the past decade have led to some changes in lobbying focus. Interviews for this study (conducted before the 2022 Russian invasion of Ukraine) yielded somewhat conflicting results, but the majority share the same point of view. Most of the interviewees believe that the changes in market structure caused by liberalisation have changed the nature of lobbying, as changes in the market structure have led to corresponding changes in the roles of the actors involved. Christof van Agt (2020) of the International Energy Forum (IEF) opined that Germany's business lobby became more diverse because of liberalisation and more discrete because of the 2014 Ukrainian crisis (Christof van Agt. IEF. Author's interview. March 19, 2020). But according to 18 out of 31 interviewees, the changes in the political environment between Germany and Russia caused by the 2014 Ukrainian crisis did not affect the nature of business lobbying in Germany towards Russia. Even when gas relations became more politicised, their logic remained largely commercial.

In the aftermath of the 2014 Ukrainian crisis, German private companies investing in business with Russia were concerned about active criticism from German politicians against the Russian government and the politicisation of their commercial activities in Russia, which could put their investments at risk (German fossil-fuel industry representative. Author's interview. January 25,

2021). Russian natural resources are under state control, which means for foreign investors the necessity of cooperation with the authorities. Maintaining good local political and commercial ties were essential in order to get the necessary return on capital. The NS and NS2 gas pipelines were prime examples of how effective lobbying for gas cooperation with Russia was. Although the NS project was strictly opposed by Eastern and Central European states, Western European countries, especially Germany and their major energy companies had a strong interest in the project and lobbied to pursue it. In 2015, at the height of economic sanctions and at a time when the energy dialogue between the EU and Russia was temporarily suspended, fuel exports from Russia to Europe continued, and Germany and Russia agreed to strengthen gas cooperation. In all of these instances, economic interests trumped political concerns.

Anna Massoglia (2021) claims that five foreign companies partnering with Gazprom on the NS2 pipeline, including Germany's Uniper and Wintershall spent more than \$840,000 in 2020 and \$600,000 in the first three quarters of 2021 to lobby the State Department and the National Security Council of the United States through a lobbying firm McLarty Inbound (Massoglia 2021). McLarty Inbound Managing Partner Richard Burt (2021) called this lobbying activity in favour of "natural gas as an element of European energy security" and against "Russian sanctions issues" (Burt quoted by Massoglia 2021). According to Massoglia (2022), in 2021, lobbying companies collectively spent more than \$6.6 million on issues related to the NS2 pipeline and promotion of natural gas as "an element of European energy security" (Massoglia 2022). However, while the Ukrainian crisis of 2014 did not largely affect lobbying for Russian gas, the 2022 Ukrainian crisis did (e.g. Fuchs 2022, Massoglia 2022). The severe sanctions policy that arose as a result of the Russian invasion of Ukraine made lobbying for the NS2 project unnecessary. The crisis prevented the operation of the pipeline and even questioned the fate of German-Russian commercial relations.

What has led to ideological changes in energy lobbying is the German Energiewende, which is discussed in Chapter 5. The Energiewende, by restructuring the market structure and altering strategic priority settings of companies, has influenced the nature of the players involved in the energy sector. Sühlsen and Hisschemöller (2014) believe that lobbying often promotes the maintenance of the status quo. Those who have benefited the most from the existing status quo have more resources for lobbying than those on the edge of the system (Sühlsen & Hisschemöller 2014: 322-324). Despite the power of the Big Four in Germany's energy sector, the large environmental movement underpinned by a continuously strengthening legal foundation managed to limit the influence of the fossil-fuel lobby (Gründinger 2017: 565). The Big Four lost their "terrain" in the first decade of the 21st century, the political influence of their lobbying organisations decreased significantly (Strunz 2014: 152,

Sühlsen & Hisschemöller 2014: 323). Although Germany's energy transition significantly weakened lobbying for gas (Gazprom representative. Author's interview. August 10, 2020; German fossil-fuel industry representative. Author's interview. January 25, 2021), the large fossil fuel companies still have a strong voice in energy policy.

Some authors believe that the fossil fuel lobbying could be strong enough to hamper the transition to renewable energy (e.g. Mesík 2016, Heider 2016). Christina Deckwirth (2021) sees the close connection between the fossil fuel economy and politics as a problem for making balanced political decisions in favour of the common good. To maintain their "climate-damaging business models", Deckwirth argues, large fossil fuel enterprises made it difficult for smaller players or new companies with climate-friendly business models to enter the market. These enterprises used their economic power as a political lever to advance their lobbying goals and were supported by politicians who in many cases were themselves involved in fossil fuel networks, for example through secondary activities. Deckwirth believes that the gas industry is using the theme of hydrogen to give itself a green tint with a green gas label (Deckwirth 2021). Kristina Heider (2016) shares a similar view, arguing that Germany's support for lignite-fired power plants, discussed in Chapter 5, was a response to pressures from the powerful fossil-fuel lobby (Heider 2016).

Unlike those who emphasise the power of the fossil fuel interests, a German fossil fuel industry representative (2021) interviewed for this study believes: "Lobbying for gas is an old history." Noting the disadvantages in gas-fired power plants, he linked the decline in domestic gas production to the poor quality of lobbying. The interviewee argued that if German gas companies were better at justifying their business, the government would pay more attention to the viability of the gas sector in its legal regulations. At the same time, the interviewee mentioned the large role of lobbying for Russian gas in the development of relations between Germany and Russia in the past. A number of independent organisations, according to the interviewee, existed with the aim to maintain good business relations between the two states. Lobbying for Russian gas used tools such as sponsored events, conferences and discussion forums, and even academic and consulting activities to influence relevant policy decisions. The reason why this lobbying lost its effectiveness, the fossil fuel industry representative attributed to the transition to sustainable energies (German fossil fuel industry representative. Author's interview. January 25, 2021).

With the German energy transition, companies that have traditionally relied on fossil fuels are increasingly investing in renewable energy production. This trend is changing the ideological basis of the energy sector and, accordingly, leading to a slowdown in the advancement of fossil fuels,

including natural gas. The strong financial capacity of fossil fuel entities could enable them to become market leaders in the new energy era. These companies were actively lobbying for fossil fuels, but now also have lucrative sustainable energy businesses. The corporate renewable energy business has had a tangible impact on policy decisions in Germany related to the energy transition. Thanks to political support and lobby activities, the renewable energy sector no longer represents a niche, but is incorporated in the energy regime of Germany (Sühlsen & Hisschemöller 2014: 324). Wolfgang Gründinger (2017) believes that a key success factor in lobbying for renewables was based on the alliances between small group of parliamentarians and various business groups, unions, environmental associations and other interest groups (Gründinger 2017: 281). The author views *trust* as the main resource of the lobby and believes that the loss of “recognition as legitimate and trustworthy partner” by an interest group affects its ability to influence policy choices. “The same veto points and veto players that earlier protected the fossil-nuclear status quo now protect the new status quo of the energy transformation” (Gründinger 2017: 565). Renewable energy advocates are strong enough to influence issues of geopolitical significance, but not in all areas. For example, before the formation of the new coalition government in 2021, despite the growing role of the Greens, they failed to exert political influence on Germany’s gas deals with Russia.

Interviews for this study and secondary research suggest that with the *Energiewende*, the intensity and quality of lobbying for Russian gas imports decreased. It is worth noting that not all respondents interviewed for this study were able to share their views on the issue of the shift in gas lobbying caused by the *Energiewende*. However, none of the respondents noted an increase in lobbying for gas in connection with the energy transition. In connection with the *Energiewende*, decarbonised gas, various types of hydrogen have become the subject of heated discussions. Accordingly, gas lobbying shifted towards lobbying for hydrogen. Reasonably, the termination of the NS2 project eliminated lobbying specifically for Russian gas.

5. THE ENERGIEWENDE AS A GAME CHANGER

This chapter examines gas relations between Germany and Russia in the context of Germany's energy transition. The study highlights the political, economic and environmental aspects of the energy transition and their respective impacts on gas relations between the two states. The chapter begins with an overview of Germany's movement to green energy policies, and then discusses the impact of this movement from different angles. Discussing the Energiewende from a market perspective, the study refers to the commercial implications of the transition to sustainable energy. The political framework includes increased attention to aspects of energy security, including efforts to reduce dependence on imports of hydrocarbons, which could shift the balance of power in Germany's favour relative to exporters of natural gas. It then discusses the impact of the energy transition on the German energy balance, particularly, nuclear, coal and natural gas sectors. The shift in the internal balance of power between proponents of fossil fuels and renewables in favour of the latter is also highlighted. The chapter concludes with an analysis of the impact of the Energiewende on German-Russian gas relations.

The chapter has a political economy background, and does not focus on technical details. Those technical aspects described in this chapter are considered important to enable the reader to better understand the motives behind policy decisions. Another important element is that, in explaining the economic motives for energy cooperation between Germany and Russia, this chapter does not deal with the complex political relationship between them. The political aspects of Germany's natural gas cooperation with Russia are discussed in the respective chapters, while this chapter explains the purely economic motives for cooperation arising from the energy transition.

5.1. The Energiewende

The Energiewende, perceived as “the official trademark of German energy politics” (Gründinger 2017: 42), intends to change Germany's energy system “from conventional, fossil-fuel, and nuclear-based means of energy production to cleaner, sustainable production and consumption” (Borden & Stonington 2014: 369). The primary goal of the Energiewende is to reduce greenhouse gas emissions (Borden & Stonington 2014: 369, *German Federal Foreign Office* 2015, *Agora Energiewende* 2015: 9-10, Oei 2018: 82, Radtke et al. 2018: 17, Jarvis et al. 2019: 7). As a transition to sustainable development through renewable energy and energy efficiency, the Energiewende has been defined

by the then German Foreign Affairs Minister Heiko Maas (2019) as “the beginning of the end of the fossil fuel age” (*German Federal Foreign Office* 2019 (b) & (c)).

Germany is considered a pioneer in the transition to renewables and low-carbon technologies, as its national policy began to incorporate renewable energies relatively early on. The intention to transform the energy system in a more environmentally friendly direction originated in the 1970s (Schreurs 2004: 15, Mendonça 2009: 26, Morris 2014: 106-107, Hake et al. 2015, Cunningham 2018: 5, Steinbacher 2019: 127-128, Schott & Schreurs 2020: 32). The Öko-Institut was among the first to assess the energy transformation potentials in Germany and introduced the term *Energiewende* in the early 1980s (Borden & Stonington 2014: 371, Nastasi & Lo Basso 2016, Steinbacher 2019: 5). The aspired energy transformation has re-prioritised energy policy objectives, placing greater emphasis on environmental compatibility (Gründinger 2017: 43), which has brought environmental protection to the top of the German political agenda (Gründinger 2017: 134). Germany used its presidency of the EU Council and the G8 to heighten attention to renewable energy development and to advance ambitious climate protection goals at the EU and international levels (Dagger 2009: 90-100, Gründinger 2017: 44-45, Schott & Schreurs 2020: 31). It was actually in 2007 that the EU 2020 Climate and Energy Package targets were set. These developments reinforced Chancellor Merkel’s positive image as the “climate chancellor” (“*Klimakanzlerin*”). These moves also strengthened the *Energiewende* course and eased political resistance (Gründinger 2017: 44-45).

The German energy transition has led to a significant growth of renewables in the power sector (Hedberg et al. 2018: 12), making this element the most “visible and advanced pillar” of the *Energiewende* (Steinbacher 2019: 7). With the Renewable Energy Sources Act (*Erneuerbare Energie Gesetz*), coming into force in 2000, Germany stepped up its support for the development of renewable energy. This law became the basis for legislation to reduce greenhouse gas emissions. It was amended/revised in 2004, 2009, 2012, 2013, 2014, 2016, 2017, and 2021, adding more detail on feed-in tariffs and flexible feed-in volumes and introducing more market mechanisms.

Step by step, Germany has made increasingly strong commitments towards developing a sustainable energy supply. The Energy Concept, adopted in 2010, set renewable energy as the main source of the future energy supply. Germany set a greenhouse gas emissions reduction target of 40 percent by 2020, 55 percent by 2030, 70 percent by 2040 and up to 95 percent by 2050 each relative to 1990 (*BMWi & BMU* 2010). Decarbonisation targets further strengthened in the meantime. The German government ratified the Paris Agreement in September 2016 and adopted the Climate Action Plan 2050 in November 2016, making it one of the first countries to present a long-term low greenhouse

gas emission development strategy to the United Nations (UN) (BMUV 2016). The Federal Climate Change Act (*Bundes-Klimaschutzgesetz*), which came into force on December 18, 2019, is a comprehensive climate package, pursuing the long-term goal of greenhouse gas neutrality. This Act was last amended by Article 1 of the Act of 18 August 2021 (Federal Law Gazette I, p. 3905) (*German Federal Ministry of Justice 2021*).

A favourable policy framework successfully created new market opportunities and ultimately led to a growth in renewable energy development and Germany’s progress in the transition to a low-carbon industrial economy (Schreurs 2012, Morris 2014, Sühlsen & Hisschemöller 2014: 316, Steinbacher 2019: 145, Schott & Schreurs 2020: 32, *Agora Energiewende 2021*). In 2020, Germany achieved a 41.3 percent reduction in greenhouse gas emissions compared to 1990 (BMWi 2022 (a)), with the share of renewables in the electricity sector reaching 45 percent (*Agora Energiewende 2021*). Figure 8 illustrates the sources of total energy supply in Germany between 1990 and 2019.

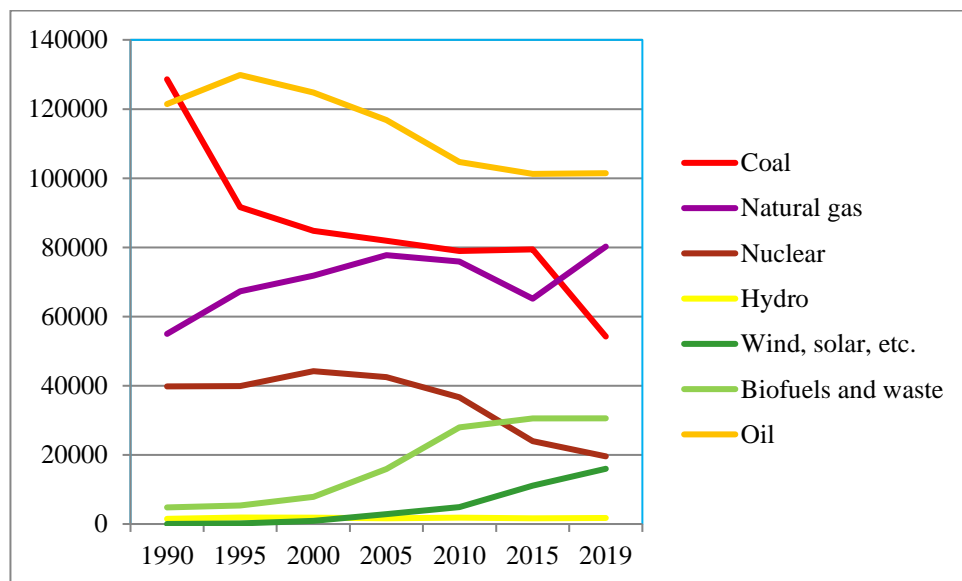


Figure 8. The sources of total energy supply in Germany, 1990-2019 (in ktoe).

Prepared by the author based on IEA 2020 data.

In 1990, only 3 percent of Germany’s electricity was produced from renewable energy sources (Schreurs 2016: 114). With the development of renewable energy, Germany’s energy mix has been diversified and expectations in 2019 were that by 2050 the share of renewables in the electricity sector

would be at least 80 percent, and in gross final energy consumption – 60 percent¹⁵ (Balthasar et al. 2019: 7). In the meantime, these expectations have again changed. In 2021, Germany further strengthened its climate targets and upped the date to reach climate neutrality to 2045 (Appunn & Wettengel 2021, Dohmen et al. 2021, *BMWi* 2022 (b)). The new coalition government has, moreover, set a goal of achieving 80 percent renewables in the electricity sector by 2030, a dramatic strengthening of climate targets in the matter of just a few years. By strengthening climate targets, Germany aims to “enshrine a new principle in law, namely that the expansion of renewables is in the overriding public interest and in the interest of public security” (*BMWi* 2022 (b)). Economic Affairs and Climate Action Minister Robert Habeck (2022) stated: “This is a massive task. And several years will pass before we see the successes. But what we are doing now lays the foundations for bringing climate action and prosperity together.” (Habeck quoted by *BMWi* 2022 (b)).

Supported by incentive mechanisms for the development of renewables, clean energy has obtained geoeconomic importance in international energy policy. The creation of a favourable political and economic environment conducive to the development of renewable energy is essential (Hübner 2016: 6-7, Wurster & Hagemann 2020: 151-152). Technological and political developments have been the main driving forces behind Germany’s energy transition. Political developments include increased attention to aspects of energy security and the desire to reduce dependence on imports of hydrocarbons. Technological developments in renewable energy technology have led to the creation and development of industries related to renewable energy sources, such as wind, solar, biomass and others.

Technological advances towards greater efficiency in the energy sector have also transformed traditional approaches to energy use. Energy efficiency has led to lower carbon emissions and ensured a higher return on investment than capital market investment. At the same time, energy efficiency is the driving force behind new business models, innovative technologies and services, making German companies internationally more competitive (*BMWi* n.d. (c)). From an economic point of view, energy efficiency saves energy costs. From a political point of view, energy efficiency, along with the development of renewable energy sources, contributes to reducing dependence on energy exporters, since as the level of energy efficiency increases, the demand for energy resources decreases.

¹⁵ The established targets for achieving the share of renewable energy in total energy consumption in the different federal states ranged from 20 percent (Saarland by 2020) to over 300 percent (Schleswig-Holstein by 2025). There are also differences in the types of renewable energy sources that play an important role for the respective federal states. For example, wind power is central to states such as Mecklenburg-West Pomerania, Lower Saxony, and Rhineland-Palatinate, while promotion of biomass and photovoltaic energy is more important for states such as Baden-Württemberg and Bavaria (Wurster & Hagemann 2018: 612).

Germany's large technological expertise and its "green power" status, combined with its leading expertise in renewable energy development, have heightened international attention to the Energiewende (Quitow et al. 2016, Steinbacher 2019). In addition to public relations tools such as events and campaigns, numerous studies have contributed to the popularity of the Energiewende. The increased interest in the development of renewable energy is also reflected in national spending on energy research in favour of renewable energy and energy efficiency, and the relative reduction on research on nuclear and coal (Borden & Stonington 2014: 372, Steinbacher 2019: 173-174).

The growth in the development of renewable energy sources has led to the strengthening of renewable energy industries and their professional associations. The German Renewable Energy Federation (*Bundesverband Erneuerbare Energie*) serves as the umbrella organisation for various renewable energy industries, coordinating their lobbying activities and public affairs. The German renewable energy industry has evolved into a "fairly well organized and fairly well equipped economic interest group" that has departed from its "purely idealistic origin in social movements and environmental groups" (Gründinger 2017: 121). The existence and strengthening of relevant business associations supporting renewable energy has resulted in a diminishing of the influence of conventional energy associations. Business associations supporting conventional energy are gradually weakening in Germany and are increasingly transforming into renewable energy development.

5.2. Market Implications of the Energiewende

Energy companies are driven by market conditions, which are partially determined by regulatory measures. The Energiewende is an important market driver, impacting strategic priority settings and investment decisions by energy companies, and changing the commercial and regulatory structure of the German energy industry. This transition has led to increased market competition, with the interests of powerful players in the traditional energy markets being challenged by the entry of new economic actors into the game. The market of the new energy era has a new value model.

The Energiewende's key policy tool to reduce greenhouse gas emissions was the Emissions Trading System (ETS), launched in 2005 to set a cap on the total amount of carbon allowed to be emitted on an annual basis. Carbon certificates must be purchased by firms for each ton of carbon emitted. The total amount of carbon allowed for release each year is reduced at a fixed rate. Trading these certificates on the open market is an efficient economic model, as it benefits companies that reduce

emissions, and charges companies with high emissions for the “right” to pollute. Despite some problems with the ETS, it has contributed to a reduction in carbon emissions (Borden & Stonington 2014: 375-377, Schott & Schreurs 2020: 36). The demand for emission allowances is expected to decrease with the phase-out of coal-fired power generation. Therefore, Germany plans to abolish the amount of emission allowances corresponding to the emissions reductions caused by the cessation of the coal power capacities (Wettengel 2020).

Achieving environmental targets often requires the mobilisation of significant funds, making the role of public policies in allocating private funds for green investments critical (Rodríguez et al. 2015: 164). The German government used economic policy instruments to encourage private investment in renewable energy. Pricing policy instruments, such as feed-in tariff schemes have had a significant effect on private investment in renewable energy (*Agora Energiewende* 2015: 13, 31, Wurster & Hagemann 2018, Balthasar et al. 2019: 17, Wurster & Hagemann 2020). The first feed-in tariff mechanism in Germany was intended to support small hydroelectric stations in the south of the country, which also contributed to the decentralisation of wind and solar energy production. The new legislation obliged large utilities to connect decentralised renewable energy operators to the electricity grid and pay them from 65 to 90 percent of the average tariff for end consumers (Mendonça 2009: 28). The governmental law on renewable energy entitled anybody who installed a solar panel or a windmill to sell surplus power to the grid, receiving a large “feed-in tariff” guaranteed over 20 years. Renewable electricity has also been given priority over conventional power in the grid (Morris 2014, *Agora Energiewende* 2015: 13, Gawel et al. 2017: 84, Cunningham 2018: 6). Increased incentives for the development of renewable energy have turned this sector into an economically attractive activity, which, in turn has promoted the development of renewable technologies and attracted large investments (Borden & Stonington 2014: 373-385, *Agora Energiewende* 2015, Steinbacher 2019: 140, Dickel 2020: 3). Table 5 shows investments in German renewable energy plants in 2020 by energy source.

Miranda Schreurs (2003) observes the dominance of a social democratic market philosophy in the German approach to environmental protection. The philosophy behind the social democratic market is that governments have a responsibility to intervene in the market to ensure greater equality in society by redistributing wealth and protecting citizens from external market influences (Schreurs 2003: 248). This philosophy is reflected in Germany’s feed-in tariff policy. Feed-in tariffs are not just a startup mechanism for the most expensive types of renewable energy, but rather a way of protecting small investors in competition with large corporations: it is a way of turning citizens into power

producers. This trend leads to gradual changes at the social, economic and political levels (Morris 2014: 113).

Table 5. Investments in German renewable energy plants by energy source, 2020.

Source: Statista 2021 (b).

Type of renewable energy	Investment (in billion Euros)
Photovoltaics	4.22
Wind power	1.97
Geothermal energy, Environmental heat	1.92
Biomass (heat)	1.82
Solar thermal	0.53
Biomass (electricity)	0.42
Wind power at sea	0.07
Hydropower	0.03

One major market implication of the Energiewende is a more decentralised energy system that stems from the nature of renewable energy sources. This opened the development of renewable energies to small, privately financed companies and startups who were quicker to react to new trends than the large, dominant ones. It has led to a gradual transition of energy reliance from a limited number of large companies to a larger number of small businesses (Joas et al. 2016: 46, O’Sullivan et al. 2017: 16-17). Craig Morris (2014) and Fabian Joas (2017) link the decentralised renewable energy momentum to the desire of renewable energy producers to produce their own energy, independent of either exporters or the oligarchy of local corporations (Morris 2014: 106-111, Joas 2017: 31). In an analysis issued in 2014, Eric Borden and Joel Stonington (2014) stated that more than 80,000 Germans had invested more than €800 million in cooperative power plant projects (Borden & Stonington 2014: 378-379). With the increase in the number of jobs in the renewable industry, the number of jobs in the conventional energy sector has declined (Gründinger 2017: 123, Cunningham 2018: 7, Steinbacher 2019: 145). A German fossil fuel industry representative (2021) interviewed for this study argued that without large government subsidies, the Energiewende could be less cost-effective. At the same time, while recognising the transition to renewable energy sources as the right step, the interviewee believed that a quick transition is not the best solution (German fossil fuel industry representative. Author’s interview. January 25, 2021).

Before the shift to the *Energiewende*, the German government subsidised and politically supported conventional power generation (G20 Germany 2017: 17-28). Technological, political and economic structures mutually reinforced each other, creating a stable regime for the generation of fossil and nuclear fuels for several decades. The oligopoly of the four large utilities (E.ON, RWE, EnBW and Vattenfall) controlled most of the German energy market. Since each of the Big Four had its own transmission network, the regional division of the networks inhibited competition and contributed to a constant market structure. With the shift initiated by the *Energiewende*, the political and economic framework backing the energy structure has changed, leading to a weakening of the fossil and nuclear fuel dominated regime (Strunz 2014: 152, Gründinger 2017: 565-566). Since the Big Four's power plants were mainly fueled by coal, nuclear and gas, with the exception of some traditional large hydroelectric power plants, the Big Four approached the new trend with skepticism and were initially reluctant to change their traditional business model and invest in domestic renewables (Borden & Stonington 2014: 373, Gründinger 2017: 117, Schott & Schreurs 2020: 32). In the early stages of the energy transition, the difference between the positions of the renewable energy sector and the Big Four was profound, allowing for the good guy-bad guy dichotomy (Sühlsen & Hisschemöller 2014: 320). But the contrast between the two has diminished over time. The energy transition has become a major challenge to the acceptability of fossil fuels, and this jeopardised the profits of the fossil-fuel dominant corporations (Renn & Marshall 2016: 225, Joas et al. 2016: 46). As a result of their declining market shares in electricity production, the large utilities have had to rethink their business models, which led to the restructuring of conventional energy companies. Large fossil fuel companies, with their significant financial capabilities, began to launch renewable energy businesses (O'Sullivan et al. 2017: 16-17), successfully applying sustainability in marketing initiatives. This shift has reinforced the new market logic in favour of sustainable energy development that encourages companies to compete to be "greener".

The restructuring of conventional energy companies has brought them closer to the "green line". For instance, influential conventional power company RWE, is engaged not only in natural gas, but also wind and solar energy as well as hydrogen. It invests billions of euros annually in the expansion of renewable energy (RWE 2020: 2). Germany's energy policy has led to the shutdown of nuclear and coal fired power plants operated by RWE and has also cast doubt on the future of its gas business. At the time of this writing, only one nuclear power plant (Emsland) of RWE is still in operation, which is due to terminate its operation by the end of 2022. Still, RWE continues to be the market leader by a wide margin (BNetzA 2021).

The Energiewende has also led to the restructuring of the largest German utility, E.ON. Referring to the necessary adaptations in connection with the new energy policy, Johannes Teyssen (2016), CEO of E.ON stated: “What happened went beyond my worst case [scenario].” (Teyssen quoted by Chazan 2016). The new energy policy led E.ON to split into two companies, transferring its conventional power generation and global energy trading to the newly formed Uniper, while maintaining its core business to focus on renewable energy and energy networks. E.ON attributed the split to “the growth potential created by the transformation of the energy world” (*The Guardian* 2016). The two rivals, E.ON and RWE, completed an asset swap in 2020, which RWE called “one of the biggest transactions in German industrial history”. E.ON sold its renewable activities to RWE (RWE 2020: 42).

Germany’s Energiewende is a good example of how politics (government) affects business (market). The government uses a combination of market and regulatory instruments to successfully implement the energy transition at the national level. While politics has assumed primary responsibility for the success of the energy transition, the role that the market plays in implementing the energy transition is significant.

The transition to sustainable energy systems has major implications for the global economy; it can negatively affect the economies of states that rely on revenues from hydrocarbon exports (O’Sullivan et al. 2017: V, Semkin et al. 2017: 1-4). In the post fossil-fuel era, when energy markets will be dominated by renewables, advanced renewable energy technologies and financial capabilities will become points of rivalry (O’Sullivan et al. 2017: 14). Moreover, the development of local renewable energy sources is not equally cost-effective for all countries. Some comparative cost advantages may lead to a concentration of strengths and weaknesses in the use of renewable energy sources. Unlike fossil fuels, cross-border cooperation in solar and wind energy focuses on the commercialisation of electricity, which is usually constrained at the regional level by storage restrictions, unless it is converted into hydrogen fuel or batteries. This is because long-distance transportation results in significant energy losses (Hübner 2016: 7-8). Christian Hübner (2016) predicts that the new energy era will be determined by those who retain control over energy networks and storage capacities and countries with such control can become new transit states. The author believes that given its transmission lines, Germany has the potential to become an important European transit country in the era of renewables (Hübner 2016: 5-8). Stefan Wurster and Christian Hagemann (2018) believe that in the medium- to long-term, the expansion of renewable energies will contribute to Germany’s independence from external energy sources, reduce energy costs and develop a modern industrial infrastructure, creating new energy branches. The authors also do not exclude the possibility for Germany to profit from energy exports (Wurster & Hagemann 2018: 612). The new era will create

its own asymmetric relationships between producers and consumers of renewable energy, as well as clean energy technologies, where Germany's advanced technologies for renewable energy development and energy efficiency may reinforce its global status as a high-tech leader.

5.3. Political and Security Implications of the Energiewende

The Energiewende is considered one of the most important political projects in Germany with beneficial implications for energy security (Amelang 2015, Quitzow et al. 2016: 26, Semkin et al. 2017: 1, Cunningham 2018: 5, *German Federal Foreign Office* 2019 (b) & (c)). The energy transition has demanded strategic changes to political priorities. In addition to the decentralisation of the energy system, another important domestic political implication of the Energiewende has been the strengthening of the role of the Greens. The Greens are a “direct voice for environmental interests” in the German political system (Schreurs 2003: 243, 2016: 114). With the acceleration of the energy transition caused by the Fukushima disaster, in the 2011 Baden-Württemberg elections, the Greens became the second largest party in parliament and formed a coalition with the SPD. Green leader Winfried Kretschmann was elected minister president, becoming the first Green politician to head a state government. The engagement of the Greens in the new coalition government formed in September 2021 is evidence of the increasing role of the Greens.

Domestic regulatory changes have also had direct and indirect impacts on Germany's international energy trade. Internationally, the Energiewende's energy security-related impact stems from the strong dependence on energy imports. The growing geopolitical tensions have made supply security issues more topical and contributed to the political and economic considerations associated with the energy transition. Given the tense political relationship with Russia, supply security issues are high on the political agenda. The growth in sustainable energy can pave the way to not only a cleaner ecological environment, but in the medium and long term, also to reduced dependence on energy imports (e.g. Quitzow et al. 2016: 26, Hübner 2016: 7, Joas et al. 2016: 46, Semkin et al. 2017: 1, Wurster & Hagemann 2018: 612, *German Federal Foreign Office* 2019 (b) & (c), Indra Overland. Norwegian Institute of International Affairs. Author's interview. April 27, 2020). Citing record high gas prices in Europe in December 2021, EC Executive Vice-president Margrethe Vestager (2021) stated: “The faster we get to renewables, the less exposed we are to price spikes coming from imported fossil fuels.” (Vestager quoted by Wilson & Hume 2021). Twenty-two out of 31 respondents interviewed for this study between March 2020 and December 2021, including Christof van Agt,

Thane Gustafson, Jonathan Stern, Glenn Diesen, and others, said the energy transition was leading to a growing if potentially only temporary dependence on gas imports.

Despite many positive advances in renewable energy development, from a security point of view, renewable energy development has limitations. Renewable energy supply fluctuates depending on the availability of wind, solar, and hydro power meaning that balancing power (e.g. gas) or storage technologies (e.g. batteries) are needed (Ogurek et al. 2019: 143-144). The largest part of the renewable electricity of Germany is generated by wind power in the north, but industrial centers are in the south of the country (Borden & Stonington 2014: 384, Sakamoto 2016: 67-68). One of the big challenges has been winning public acceptance for the construction of high voltage power lines to transport electricity generated from wind (Schreurs 2016: 116) in the north to industrial demand centers in the south.

Energy is a strong driver of foreign affairs and the Energiewende is changing energy diplomacy (Amelang 2015, *German Federal Foreign Office* 2019 (b) & (c)). The then German Foreign Affairs Minister Heiko Maas (2019) argued that sustainable energy systems enhance energy security, which, in turn, contributes to reducing the level of political instability and the number of conflicts at the global scale (Maas quoted by the *German Federal Foreign Office* 2019 (b) & (c)). A similar view is shared by Meghan O’Sullivan et al. in a study published in 2017 that in the renewable energy era, wider electricity interconnection can increase interdependence between countries, thereby reducing the risk of conflict (O’Sullivan et al. 2017: VI).

In discussing the global effects of the Energiewende, then-Minister Maas (2019) called on other countries follow Germany’s example, to ensure their own energy supplies and reduce energy dependence on others. Referring to the increase in the share of renewables in Germany’s electricity production, Maas stated: “This is a major achievement, not only in terms of climate policy. It is a considerable step towards Germany’s energy independence, and towards greater European sovereignty. The controversial debates on how natural gas fired plants could serve as a bridge to a low carbon future, and on the Nord Stream 2 pipeline, have highlighted the urgency of this issue.” (Maas quoted by the *German Federal Foreign Office* 2019 (b)). Germany claims to be a leader globally with its energy transition (e.g. Joas 2017, Dickel 2018, *German Federal Foreign Office* 2019 (b) & (c), Steinbacher 2019). Maas (2019) declared Germany’s readiness to campaign for global renewable energy standards, to make its suitable technologies largely available and to promote investments in the renewable energy development in other countries. Referring to the Energiewende, the then-Minister noted: “It will be all the more rewarding if, in the process, a German word enters

the vocabulary of English speakers from New Delhi to New York.” (Maas quoted by the *German Federal Foreign Office* 2019 (b)). It can be argued that it was the Energiewende that gave Germany more confidence to stop importing Russian gas after Russia’s invasion of Ukraine in 2022. The crisis in German-Russian relations has elevated the Energiewende from the realm of environmental safety to the realm of national security, highlighting its political significance in German foreign policy.

5.4. Denuclearisation and its Energy Security Implications

Nuclear energy had been an integral part of the German energy mix since its implementation in 1968. The early nuclear power epoch was characterised by great technological optimism, which until the early 1970s was based upon a political consensus behind nuclear power among the governing parties in Germany. It was considered an integral part of industrial policy and the re-establishment of Germany’s status in international markets. Nuclear policy was initially central to German industrial policy, then to national energy policy, and ultimately also to environmental policy (Mez & Doern 2009).

Yet nuclear energy was also associated with serious problems of weapon proliferation, waste disposal, storage and inherent safety, which led to resistance to nuclear energy in Germany (Schreurs 2012: 7, Dickel 2014: 8, Appunn 2021, Christian Hübner. Konrad-Adenauer-Stiftung. Author’s interview. February 1, 2021). For example, in 1975, 28,000 protesters managed to stop the construction of a nuclear power plant in Wyhl, Baden-Württemberg (Appunn 2021). The nuclear accident on Three Mile Island in the United States in 1979 and the disaster at the Chernobyl nuclear power plant in Ukraine (at the time part of the USSR) in 1986 strengthened popular movements against nuclear power (Borden & Stonington 2014: 371, Gründinger 2017: 41 & 43, Joas 2017: 30, Jarvis et al. 2019: 6, Appunn 2021) and weakened political support for nuclear energy (Schott & Schreurs 2020: 33). Since 1989, no new commercial nuclear power plant has been built in Germany. Protests in Hannover and Bonn following the Three Mile Island disaster drew some 200,000 people (Appunn 2021). The anti-nuclear movement in Germany, which included many protest groups and environmental associations, and over time won the backing of political parties, unions and churches, is considered the strongest in the world (Gründinger 2017: 128). The nuclear phase-out was a response to strong public concerns about nuclear energy (Schreurs 2012: 7).

The first nuclear phase-out agreement was concluded in 2000. In 2002 the government passed the Act on the Structured Phase-out of Nuclear Power for the Commercial Production of Electricity. Perception of the risks of nuclear energy significantly strengthened after the Fukushima incident in 2011, which completely ended political support for nuclear energy (Schott & Schreurs 2020: 33). The fact that the reactor disaster happened in a country with a high level of technology like Japan (*Bundesregierung* 2011), demonstrated the limitations of human precautions against accidents and increased the importance of health and environmental concerns over purely political and economic considerations. After the Fukushima accident, eight of the 17 nuclear plants operating in Germany (those commissioned before the end of 1980) were immediately shut down. In addition, all nuclear power plants had to undergo new safety tests. In June 2011, by a large majority the Bundestag voted to fully terminate the generation of nuclear power (Jorant 2011: 15, Schreurs 2012: 7, Jahn & Korolczuk 2012, Borden & Stonington 2014: 369-370). This decision was remarkable, because only half a year earlier the ruling coalition of CDU/CSU-FDP had ratified the 11th amendment of the Atomic Energy Act, aiming to extend the life of pre-1980 reactors by eight years and that of post-1980 reactors by 14 years (Dehmer 2013: 72, Kunz & Weigt 2014: 14).

The Fukushima accident accelerated Germany's transition to renewable energy development (e.g. Von Hirschhausen et al. 2018: 6). But Piebalgs (2021) believes that even without the Fukushima accident, Germany's abandonment of nuclear power was anticipated, because of "mainstream thinking about industries," which he associates with large anti-nuclear thinking (Andris Piebalgs. Former EU Energy Commissioner. Author's interview. March 24, 2021). However, before the Fukushima accident, nuclear phase-out was not perceived unequivocally. The Chairman of the international energy company Repower, Fritz Vahrenholt (2005) was one of those who opposed the closure of nuclear power plants. Vahrenholt urged a slow shut-down to avoid energy shortages and rising energy prices: "If you stick to this plan of shutting a nuclear plant every year, the only result is more imports." (Vahrenholt quoted by *BBC News* 2005). Vahrenholt's arguments were shared by Wolfgang Pfaffenberger (2005), a professor at the Bremen Energy Institute, who admitted the possibility of expanding the use of natural gas to fill the nuclear phase-out gap, but at the same time considered it risky, since Russia would become the main supplier, dictating gas prices (Pfaffenberger quoted by *BBC News* 2005).

The decision to accelerate the phase-out of nuclear energy production was accompanied by the perception of energy security risks. Note the official statement by the Federal Network Agency (2011): "In case of a permanent shutdown of the eight nuclear power plants affected by the moratorium, Germany as of today can no longer support security of supply in the European

interconnected grid to the extent it has done so far.” (*BNetzA* 2011: 6). But the fears of energy security risks were quickly proved wrong.

A study by Agora Energiewende (2014) concluded that German energy security was not directly affected by nuclear phase-out, since the decrease in nuclear generation was fully offset by the increase in electricity production from other sources, such as renewable energies and coal (*Agora Energiewende* 2014: 1). This conclusion was supported by Sandu-Daniel Kopp (2020) of the German Association of Energy and Water Industries (BDEW) and a representative of the German fossil-fuel industry interviewed for this study, who argued that nuclear phase-out did not have a considerable impact on natural gas imports to Germany (Sandu-Daniel Kopp. BDEW. Author’s interview. September 9, 2020; German fossil-fuel industry representative. Author’s interview. January 25, 2021). In contrast to this argument, Stephen Jarvis et al. (2019), in their study of the economic and environmental implications of the nuclear phase-out between 2011 and 2017, argue that fossil fuels, mostly coal-fired production bridged the nuclear phase-out gap in electricity generation. The authors estimate the climatic damage caused by the increase in CO₂ emissions, resulting from nuclear phase-out at \$1.8 billion a year (Jarvis et al. 2019: 4, 29).

The nuclear phase-out was partly responsible for not allowing Germany to reduce its dependence on external gas suppliers. Some of the respondents interviewed for this study, including Jonathan Stern, Christof van Agt, Igbal Guliyev, Kirsten Westphal, Simon Schulte, Indra Overland and Christian Hübner believe that the nuclear phase-out opened up more space for gas, indirectly affecting gas imports. Andreas Metz (2021) of the German Eastern Business Association believes that the nuclear phase-out had a direct impact on Germany’s decision to import more Russian gas (Andreas Metz. German Eastern Business Association. Author’s interview. March 18, 2021). Still the impact of the nuclear phase-out on the increase in natural gas imports to Germany can be assessed as negligible. According to BAFA data on gas imports, there was an increase in Germany’s gas imports even before the first closure of a nuclear power plant, as imports went from 1,985,817 terajoules (TJ) in 1990 to 2,865,234 TJ in 1999 (*BAFA* n.d.).

Jarvis et al. (2019) have identified the implications of the nuclear phase-out for the plant owners. The four large firms that owned nuclear plants also had large fossil plant portfolios both in Germany and throughout Europe. The nuclear phase-out led to larger profits by these fossil plants, which likely mitigated the decline in profits resulting from the nuclear phase-out. It is this redistribution of profits among electricity producers, according to the authors, that tempered the opposition of the main companies involved in nuclear power generation (Jarvis et al. 2019: 23). At the same time, Jarvis et

al. estimate the annual net increase in intensive marginal costs resulting from nuclear phase-out at about \$12 billion (Jarvis et al. 2019: 30).

Table 6 shows the timetable for the German nuclear phase-out. At the time of this writing, with less than a year left before the closure of the last German nuclear power plants, thoughts of an energy system without nuclear power have been very positive. Calls for a revision of nuclear phase-out are very minor (Carpenter 2020, Wehrmann 2021). The then Environment Minister Svenja Schulze (2021) stated: “Next year, when the last German nuclear power plants are switched off, we will achieve a historic goal. A major conflict in society will be successfully laid to rest, and the nuclear risks for Germany will gradually be reduced.” In addition to safety aspects, Schulze also touched upon the economic side, assessing the use of nuclear energy much more expensive than renewable energy sources (Schulze quoted by *BMUV* 2021 (a)). Michael Müller (2021) of RWE also made economic arguments in favour of renewable energy development. Arguing that investing in renewables is much more profitable comparing to nuclear energy, Müller noted: “We will not continue to run our nuclear plants. This debate is finished in Germany.” (Müller quoted by Wehrmann 2021). Stephan Weil (2021), SPD state premier of Lower Saxony, where two of the six remaining nuclear power plants were located, is also a nuclear opponent and supports renewable energy development, considering a return to nuclear power as “a step backwards” (Weil quoted by Wehrmann 2021).

The EU takes a different approach to nuclear power and has classified nuclear energy as a green transitional energy source (*EC* 2022 (a)). *EU Taxonomy Complementary Climate Delegated Act*, presented by Brussels on February 2, 2022, emphasises that nuclear together with gas “contribute to the transition to climate neutrality” and that nuclear “fulfils nuclear and environmental safety requirements” (*EC* 2022 (a)). EU support to nuclear energy is largely based on its low-carbon nature, as confirmed by the reports of the Technical Expert Group until 2020 and the report of the Joint Research Committee in 2021 (*EC* 2022 (b)). Accordingly, the Commission concluded that “nuclear energy, subject to strict safety and environmental conditions (including on waste disposal) that ensure the respect of the do no significant harm principle, can play a role in the transition towards climate neutrality in line with the European Green Deal” (*EC* 2022 (b)).

Table 6. Timetable for the German nuclear phase-out.

Source: Appunn 2021.

Reactors and net-capacity (MW)	Date of closure	Operator
Unterweser: 1345 MW Isar/Ohu 1: 878 MW Grafenrheinfeld: 1275 MW Brokdorf: 1410 MW Grohnde: 1360 MW Isar Ohu 2: 1410 MW	August 6, 2011 August 6, 2011 June 28, 2015 December 31, 2021 December 31, 2021 December 31, 2022	E.ON
Neckarwestheim 1: 785 MW Phillipsburg 1: 890 MW Phillipsburg 2: 1402 MW Neckarwestheim 2: 1310 MW	August 6, 2011 August 6, 2011 December 31, 2019 December 31, 2022	EnBW
Biblis A: 1167 MW Biblis B: 1240 MW Gundremmingen B: 1284 MW Gundremmingen C: 1288 MW Emsland: 1329 MW	August 6, 2011 August 6, 2011 December 31, 2017 December 31, 2021 December 31, 2022	RWE
Krümmel: 1346 MW Brunsbüttel: 771 MW	August 6, 2011 August 6, 2011	Vattenfall

The German Federal Office for the Safety of Nuclear Waste Management (*Bundesamt für die Sicherheit der nuklearen Entsorgung* – BASE) expressed its opposition to the Commission’s proposal on classifying nuclear power as “sustainable”. BASE argued the risk of nuclear accidents and the complexities associated with the disposal of nuclear waste. “From a technical point of view, the classification of nuclear power as a sustainable form of energy generation is not tenable,” stated BASE President Wolfram König (König quoted by Meza 2022). An alliance of NGOs operating in Germany also protested against the inclusion of nuclear energy and natural gas in the taxonomy. Steffi Lemke (2022), Federal Minister for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, acknowledging that there was little Germany could have done to prevent the proposal from being passed, stated the importance of “a clear public position” rejecting nuclear power, supported by Chancellor Olaf Scholz and Finance Minister Christian Lindner (Lemke quoted by Wehrmann 2022 (a)). Nevertheless, the bill entered into force. At the time of this writing, three German nuclear power plants are still in operation, but should be closed by the end of 2022. These plants are *Isar Ohu 2* of E.ON with a capacity of 1410 MW, *Emsland* of RWE with a capacity of 1329 MW and *Neckarwestheim 2* of EnBW with a capacity of 1310 MW. However, Germany’s

intention to move away from dependence on Russian gas imports, prompted by Russia's invasion of Ukraine, may stimulate a new look at the closure of the remaining nuclear power plants.

5.5. Coal Phase-out and its Energy Security Implications

Since the beginning of the industrial era, coal has been a cornerstone of Germany's economic growth, playing a significant role in its energy mix (Rutten 2014: 30, Von Hirschhausen 2018: 22-24, *BMW* 2019: 2, Sandu-Daniel Kopp. BDEW. Author's interview. September 9, 2020). Hard coal and lignite still play an important role in the German power generation sector (*BMW* n.d. (d), *AGEB* 2021), with lignite being perceived as Germany's "industrial stronghold" (Kopp 2015: 257). Germany is the world leader in lignite production, ahead of China, Russia and the United States (*BMW* n.d. (a)). With its energy-intensive industry, as of 2020 Germany owned seven of the 10 largest CO₂ emitting power plants in the EU emissions trading scheme, all lignite power plants (Heilmann & Popp 2020: 2).

A tangible price discrepancy between coal and gas in the 2010s made for the relative profitability of coal over gas. For example, in 2013, the price of CO₂ in the EU emissions trading scheme was around €5 per ton, compared to €25-30 per ton in 2008. This price discrepancy was a decisive factor in the commercial choice for coal over gas in the domestic market (Dickel et al. 2014: 43, Kopp 2015: 238-240, Vavilov et al. 2015: 198, Jarvis et al. 2019: 12). It brought old coal-fired power plants back into operation, and even resulted in the building of new coal power plants, putting climate targets at risk. The phenomenon of rising CO₂ emissions against the background of the accelerated renewable energy development in Germany was a paradox of the energy transition (*Agora Energiewende* 2014). Between 2007 and 2015, Germany provided the coal industry with \$9 billion in direct financing, guarantees and technical assistance. Despite the global trend towards the elimination of fossil fuel subsidies following the Paris Agreement and calls from the EC to end fossil fuel subsidies by 2020, Germany introduced a new subsidy measure in 2015 in the form of capacity payments for lignite plants (Van der Burg 2017: 2).

The switch from coal to gas in U.S. power generation initiated in 2009, led to the large-scale availability of U.S. coal for export at particularly competitive prices. The cost of hard coal in Germany was four times that of imported coal, which eventually led to its substitution by imported coal (Oei 2020). In addition to the attractive global coal prices, favourable conditions for renewable energy

development further undercut the profitability of gas-fired power plants in Germany. A noticeable decline in revenues brought domestic gas utilities to the verge of bankruptcy (Sakamoto 2016: 68, Gustafson 2020: 222). The economic infeasibility of gas-fired plants resulted in the closure of gas facilities run by large national energy companies like E.ON and RWE. These market conditions affected not only German entities, but also gas plants in neighbouring countries, which were linked to the German market. In addition to gas power generation being offset by coal and renewables, there was an increase in gas imports (*Agora Energiewende* 2014, *BAFA* n.d.).

In addition to the closure of the nuclear power plants, the Energiewende and the attainment of climate targets require the shutting down the fossil fuel power plants (*BMUV* 2012). Pressure from public (Raitbaur 2021: 177; 184), climate activists and the international community (Germany's obligation to limit the rise in global average temperature to well below 2°C and preferably to 1.5°C above pre-industrial levels in line with the Federal Climate Change Act, which implies the decarbonisation of the power sector) led to new provisions pushing up the phase-out of power generation from hard coal and lignite (*BMWi* n.d. (d)). The UN Secretary General António Guterres (2019) called for an end to new coal-fired power plants from 2020 to avoid a “total disaster” globally (Guterres quoted by *BusinessGreen* 2019). “The coal phase-out is a central component of global climate protection.... With the resolutions of the climate cabinet, the federal government officially committed to phase out coal. With that we can finally join the alliance of the coal exit countries,” stated the then Environment Minister Svenja Schulze (Schulze quoted by *Neue Zürcher Zeitung* 2019 (translated by the author)). In 2019, Germany entered the *Powering Past Coal Alliance*, accelerating phase-out of coal-fired power generation. The existence of such an alliance and its ability to attract more than 100 countries as members since its establishment in 2017 (*Powering Past Coal Alliance* n.d.) testifies to the growing global opposition to coal.

In January 2020, the German government presented a draft law (*Kohleausstiegsgesetz*), based on a 2019 report by the German Coal Commission, to completely terminate hard coal-fired and lignite - fired power by 2038. The phase-out decision was accompanied by conflicting views on the content of the law (e.g. Wehrmann 2020, Ganti & Hare 2020, Raitbaur 2021: 182-185) but was ultimately passed by parliament in July 2020. Phasing-out of hard coal production is scheduled to be completed by December 2027, with possible extensions to younger coal-fired power plants. Starting in 2028, the remaining coal mining capacity will be decommissioned in a controlled manner without any compensation (Heilmann & Popp 2020: 3-4). At the end of 2020, 4.8 GW of coal-fired units that were compensated for the closure were withdrawn from the market (Franke 2021).

But the coal phase-out is viewed by some authors as slow, and offset by massive compensations (e.g. Ganti & Hare 2020, Kemfert 2020 (b), Wehrmann 2020, Raitbaur 2021: 176, 183, Deckwirth 2021). While new hard coal and lignite power plants were banned by the recent law, Uniper's new 1.5-billion-Euro Datteln 4 coal-fired power plant was commissioned in the summer of 2020 as an exception, since an emission permit had already been granted by the time the law came into force (Kemfert 2020 (b), Wettengel 2020). In accordance with the proposed law, lignite plant operators would receive over €4.3 billion in fixed compensation, which Benjamin Wehrmann (2020) believed could extend German coal use (Wehrmann 2020).

Referring to the coal exit law, then-Federal Minister for Economic Affairs and Energy Peter Altmaier (2020) stated: "With this legislative package, we will end coal-fired power generation in Germany in a legally secure, economically sensible and socially balanced manner. Above all, however, we are also creating perspectives for a secure and affordable power supply based on highly efficient gas-fired power plants that enable the transition to a greenhouse gas-neutral energy supply." (Altmaier quoted by *BMWi* 2020 (translated by the author)). This statement underlined the increased attention to gas in the German energy mix, which in turn created prospects for greater cooperation in gas. The increased focus on gas was also reflected in the financial aid from the German government in the amount of up to €390/kW capacity for the transition from coal to gas in combined heat and power (CHP) plants (Heilmann & Popp 2020: 4).

In the study conducted by Marcia Rocha et al. (2017), the coal phase-out is viewed from two perspectives: *regulator perspective* and *market perspective*. The regulator perspective implies the decommissioning of the plants with the highest emission intensity first. From the market perspective, the economic value of the plant takes precedence over its emissions intensity. The study argues that both perspectives are considered when decommissioning coal-fired power plants in Germany with a dominant market perspective. Depending on the individual plants, the approaches applied can differ significantly, as decommissioning can have different potential impacts on different regions and the country's economy (Rocha et al. 2017: VI-VII, 22).

At the time of this writing, about 21 percent of primary energy consumption in Germany comes from hard coal and lignite (*BMWi* n.d. (d)). In the heated debate over the phase-out of coal-fired power generation, the main concerns are related to economic aspects. The Coal Exit Commission, representing a wide range of political, economic and social actors to reach consensus on the phase-out of coal-fired generation, was established by the federal government in 2018. The Commission aims to find economic prospects for coal miners and regions, clarify measures to reduce carbon

emissions in accordance with Germany's climate targets, and set an end date for coal-fired power generation (Wehrmann 2018, *BMWi* 2019, *IASS* 2021, Raitbaur 2021: 182).

On April 29, 2021, the German Federal Constitutional Court determined that the provisions of the Federal Climate Change Act (2019) were incompatible with the constitution (*Bundesverfassungsgericht* 2021, Fecke 2021, *IASS* 2021), and forced the government to amend its existing climate targets. The Court partially upheld the constitutional claims filed by several activists, backed by the NGOs Greenpeace and Germanwatch, against the climate law (Fecke 2021). The Court ruled that the emissions allowed until 2030 under the Federal Climate Change Act significantly narrowed the options available to reduce emissions beyond 2030. The relevant provisions of the Federal Climate Change Act were inconsistent with the principle of proportionality. This principle would require that the constitutionally required reduction in CO₂ emissions to the point of climate neutrality be equitably distributed over time, respecting fundamental rights. Consequently, the necessary precautions had not been taken to ensure climate neutrality (Fecke 2021). In response to the claim of the Court, on June 24, 2021, the German parliament passed the revised Federal Climate Change Act. The revised law sets higher national mitigation targets for 2030 (65 percent) and 2040 (88 percent), as well as a goal of net climate neutrality by 2045. The revised law, in particular, provides for significant additional emission reductions in the energy sector and industry, and sets specific climate targets for each year after 2030 (*BMUV* 2021 (b)). With the increased climate targets, this law facilitates the planned phase-out of the coal-fired power generation. The then Environment Minister Svenja Schulze (2021) expressed her belief that the amended law “creates more intergenerational justice, more planning security and determined climate protection that does not stifle the economy but rebuilds and modernises it” (Schulze quoted by Nijhuis 2021). According to Germany's climate action status, published by *BMWi* on January 20, 2022, coal-fired power generation is subject to shutdown by 2030. To achieve this goal, Germany would take the necessary steps for a faster coal phase-out (*BMWi* 2022 (a)). The coal phase-out theoretically creates more space for gas in the domestic energy mix, but given Germany's refusal to import energy from Russia, a possible change in Germany's coal phase-out policy is not ruled out.

5.6. The Role of Gas in the Energiewende

The share of the German power production from gas has historically been lower than in gas-rich countries, which partially attributed to the availability and economic viability of coal (Von

Hirschhausen 2018: 24-25, Sandu-Daniel Kopp. BDEW. Author's interview. September 9, 2020). In the energy transition debate, the importance attached to natural gas was somewhat limited by giving priority to renewable energy development (*IEA 2020 (b): 279*). The research conducted by Greenpeace – “*Erdgas – Die Brücke ins regenerative Zeitalter*” (natural gas – the bridge to a sustainable era) with a time horizon to 2050 was the only exception in this regard (Dickel 2014: 13, Kopp 2015: 237). The Ethics Commission further noted in its May 30, 2011 report the importance of natural gas primarily for bridging the electricity generation gap. While supporting diversification of supplies, the document reflected the possibility of decommissioning gas power plants by 2050, without economic risks (Dickel 2014: 25-26). The importance of natural gas for the *Energiewende* was highlighted by Chancellor Merkel at the 49th World Economic Forum: “If we phase out coal and nuclear energy then we have to be honest and tell people that we’ll need more natural gas. What’s more, energy has to be affordable.” (*Bundesregierung 2019*).

The attitude of environmentalists to gas is becoming increasingly unfavourable (Gustafson 2020: 361). They cite high levels of methane and greenhouse gas emissions by natural gas-fired power plants and gas pipelines (e.g. *IEA 2020 (b): 20, DUH 2020, Hockenos 2021; Holz & Kemfert* quoted by Koch 2021). For example, the NGOs World Wildlife Fund (WWF) and Climate Action Network (CAN) Europe (2021) put forward an argument that “Fossil gas has no role as a transitional fuel: it accelerates climate change and leaked methane emissions can make it worse for the climate than coal.” (WWF and CAN Europe quoted by Hockenos 2021). In contrast, Russian Energy Minister Nikolai Shulginov (2021) believed in a “good future” for natural gas and argued that “to get rid of that Russian natural gas, is like a faire-weather friend. It is so easy to think of it in the summertime! And as soon as the winter comes, this advice is no more valuable and everyone is ready to consume the gas and even coal.” (Shulginov quoted by the *Ministry of Energy of the Russian Federation 2021*).

Franziska Holz and Claudia Kemfert (2021) of DIW predict that natural gas consumption will logically drop to zero by 2050. The energy demand will be increasingly met by renewable sources and “green” hydrogen, that is hydrogen derived from renewable sources (Holz & Kemfert quoted by Koch 2021). Kemfert (2018) argues: “If you take the Paris climate targets seriously and take the emission reduction targets seriously, gas demand will decline rather than increase over the next few decades, nor will it stagnate. Because reducing emissions means you have to move away from fossil fuels, you have to completely decarbonise. Gas will still play a role in the transition period, but not in the long term.” (Kemfert quoted by Pollmeier & Zühlke 2018 (translated by the author)). Thilo Schaefer (2021) of the German Economic Institute shares a similar view, suggesting that the absolute amount of gas consumption will not increase in the next 30 years, but at some point will significantly

decrease (Schaefer quoted by Koch 2021). Goldthau (2020) considers gas not as a transitional fuel, but rather as a fuel that helps for the transition and plays a role in the energy backup system (Andreas Goldthau. Willy Brandt School of Public Policy at the University of Erfurt. Author's interview. April 16, 2020).

There are many studies that describe natural gas as having advantages for the energy transition. EWI Energy Research & Scenarios (2018) predicts that in all climate target scenarios, gas-fired power plants will remain the dominant conventional power generation technology (*dena* 2018 Teil B: 13). Mark Hugo (2020) argues that electricity generation from natural gas produces about 40 percent less carbon dioxide than coal (Hugo 2020), which could help achieve the goal of reducing CO₂ emissions. According to Harald Hecking and Wolfgang Peters (2018), gas can also help reduce CO₂ emissions by up to 95 percent in the case of deeper decarbonisation, when it is predominantly used in “green” form (Hecking & Peters 2018: 3). The shift from oil to gas in the heat sector, argued Hella Engerer (2021) of DIW, contributed to the growing role of gas in the energy sector (Hella Engerer. DIW. Author's interview. February 8, 2021). It is worth noting the expected operation of new gas capacities in Germany – Volkswagen's Wolfsburg CCGTs (400 MW), Uniper's Scholven unit (135 MW), Steag's Herne 6 (625 MW), Siemens Energy's gas-fired power plant (300 MW), as well as a number of small urban CHP and industrial power plants (Franke 2021, *TMI* 2021).

Gas is included among transitional activities covered by Article 10 (2) of the *Taxonomy Complementary Climate Delegated Act*. Transitional activities, defined as those that cannot yet be replaced by technologically and economically viable low-carbon alternatives, but contribute to climate change mitigation, and can play an important role in the transition to a climate-neutral economy, “in line with EU climate goals and commitments, and subject to strict conditions, without crowding out investment in renewables”. The Commission called the Taxonomy Regulation “an important element in the sustainable finance toolkit to help fund the Green Deal”, believing it will increase the transparency of financial markets for sustainable private sector investment. According to the Delegated Act, to meet the technical criteria, for each new natural gas-fired power plant to be built, a coal-fired power plant of the same capacity must be removed. In terms of power generation, the capacity of a gas-fired power plant cannot exceed that of a coal-fired power plant by more than 15 percent. By the end of 2035, gas power facilities must completely switch to the production of renewable energy or low-carbon gases (*EC* 2022 (b)).

Interviews for this study (conducted before the 2022 Russian invasion of Ukraine) viewed the role of natural gas in the energy transition positively. Piebalgs (2021) viewed gas imports as “the most

obvious solution” to coal phase out, leading to power gaps. As a fast and cost-effective option to push coal out of the system, gas could help meet the CO₂ reduction objective. Piebalgs believed that European natural gas demand would remain stable for quite some time and said prospects for natural gas would depend on national climate and energy policies (Andris Piebalgs. Former EU Energy Commissioner. Author’s interview. March 24, 2021). A Russian political scientist specialising in gas deals between Russia and Europe considered that the role of natural gas with Germany’s energy transition “neither increased, nor reduced, but became apparent” (Russian political scientist. Author’s interview. August 5, 2020). Caspar (2021) noted gas’ temporary importance for the transformation of the energy system, as it complements renewable energy sources well (Oldag Caspar. Germanwatch. Author’s interview. February 11, 2021). Simon Schulte (2020) of the Institute of Energy Economics (EWI) predicted an increase in the role of natural gas in Germany in the next decade, which he attributed to the nuclear and coal phase-out. At the same time, Schulte believed that this would be a temporary dependence on natural gas, which would be gradually eliminated through the development of renewable energy sources (Simon Schulte. EWI. Author’s interview. March 24, 2020). Ilham Akbarov (2020), an experienced gas industry manager, was more optimistic about natural gas, believing that the role of natural gas as transition commodity would remain constant or even increase until at least 2050 (Ilham Akbarov. TAP. Author’s interview. September 23, 2020).

But the role of gas in the renewable energy era is somewhat different. Referring to the future role of gas in the EU energy balance, the then European Commissioner for Climate Action and Energy Miguel Arias Cañete (2018) stated: “The role of gas will not be the same in 2050 than today. ... Only e-gases, Power-to-X and hydrogen will be present there – for sure.” (Cañete quoted by Frédéric 2018). Stern (2018) argued: “It will not be possible to represent gas as a clean fuel beyond 2030 unless carbon capture and storage [CCS] can be developed on a large scale.” (Stern quoted by Frédéric 2018). But, citing the unpopularity and very small scale of CCS in Europe, Piebalgs (2021) believed that CCS would not be widely applied in the European power sector (Andris Piebalgs. Former EU Energy Commissioner. Author’s interview. March 24, 2021).

Summarising various gas demand scenarios in Germany until 2050, Hecking and Peters (2018) argued the expected high gas demand, with the ratio of natural gas to green gas shifting towards green gas with deeper decarbonisation (Hecking & Peters 2018: 14-15). The authors identified that gas-based decarbonisation strategies were significantly cheaper than electrification-based strategies. At the same time, according to the authors, transportation of energy in the form of gas was much cheaper than in the form of electricity due to the higher energy density (Hecking & Peters 2018: IV).

Decarbonised natural gas would become part of a carbon-neutral world if most of the energy contained in hydrocarbon reserves were used in a carbon-free way (Dickel 2018: 2-3, *dena* 2018 Teil B: 13). There are several technological options for “greening” gas. Biomethane is considered the main one, but its growth potential is limited. Another option is green hydrogen blending, but its potential for use is limited due to gas quality constraints. This makes synthetic methane, produced by converting energy to methane, the most likely option for greening gas in large volumes. This is critical for any deep decarbonisation scenario by 2050 (Dickel 2018: 7-9, Hecking & Peters 2018: III, *dena* 2018 Teil B: 13, Jan Ingwersen quoted by Simon 2019 (a), *IEA* 2020 (b): 278-279). Advanced technology makes it possible to produce hydrogen without CO₂ emissions (*Gazprom Export* 2021 (d)).

On the other hand, each of the abovementioned “greening” options may have various disadvantages. Kirsch (2020) named among the negative aspects of hydrogen its “aggressive” transportation and the need for high pressure, as well as its low energy intensity (Jörg Kirsch. BMWi. Author’s interview. September 2, 2020). Akbarov (2020) believes that in the next three decades, it is unlikely that enough “renewable gas” will be produced to fully meet demand. The main complexities Akbarov listed: biomethane must go through certain technological processes before it enters the market; in the hydrogen production process, the energy used and wasted affects the economic viability of the production (Ilham Akbarov. TAP. Author’s interview. September 23, 2020).

A study conducted by *dena* (2018) suggests that, in view of its limited transportability, hydrogen should be produced regionally in Germany, and proposes using upgraded existing natural gas infrastructure for hydrogen. In the next few decades, *dena* believes, replacement investments may regularly be necessary in the natural gas infrastructure, during which the development of regional and supra-regional hydrogen infrastructures should be examined (*dena* 2018. Teil A: 47). From a geopolitical perspective, the continued use of the existing resource base and related infrastructure is in the interests of gas exporting countries. From an energy security perspective, this can serve the interests of energy importing countries by supporting alternative infrastructure for transporting and storing large amounts of energy in order to reduce the risk of full dependence on renewable electricity (Dickel 2018: 2-3).

The European Network of Transmission System Operators for Gas (ENTSOG) is optimistic about the use of existing gas infrastructure in the post-fossil gas era. Jan Ingwersen (2019), the ENTSOG General Manager views natural gas grids as a critical infrastructure component in the energy transition, leading to sector convergence as well as a hydrogen economy and notes: “What we see for

the future is a combination of gas and electricity as energy carriers – so a hybrid system approach, which is also referred to as sector coupling.” (Jan Ingwersen quoted by Simon 2019 (a)). Since the networks not only allow the transport of gases, but they can also be used as a gigantic and flexible storage system. When pipelines are not fully utilised, there can be some storage flexibility. According to ENTSOG, the German gas network is able to store 360 TWh of energy, which constitutes around a tenth of the country’s annual primary energy consumption. Ingwersen is confident in the flexibility of large transmission pipelines due to high pressure and is optimistic about new business models (Jan Ingwersen quoted by Simon 2019 (a)). Hendrik Pollex (2021), the ENTSOG Director of Systems Operation: “Even if we have to move away from fossil gases in the long term, the existing gas infrastructure is of inestimable value: We can already add hydrogen to natural gas and thus ramp up the decarbonisation steplessly. But we can also convert part of the existing infrastructure into pure hydrogen networks. The lines are in place, we have to work primarily on the interfaces. If we use these resources, we not only save money, but also a lot of time.” (Pollex quoted by *BDEW* 2021 (translated by the author)).

In her speech at the European Hydrogen Week, EC President Ursula von der Leyen (2021) emphasised the importance of hydrogen in the energy transition: “If we are to meet our climate goals, we need to accelerate in the European hydrogen economy.” (Von der Leyen quoted by *EC* 2021 (a)). In February 2021, Cabinet of Germany approved a plan to switch existing pipelines transporting gray hydrogen to green hydrogen and build entirely new green hydrogen pipelines. The bill refers to the law as a transitional mechanism that will allow the country to gradually implement the hydrogen strategy worth €9 billion (*Reuters* 2021 (a)). While the gas industry is keen to move quickly to the green hydrogen, BDEW Chairwoman Kerstin Andreae (2021) states the impossibility of the rapid creation of a sustainable hydrogen infrastructure within the proposed regulations (Andreae quoted by *Reuters* 2021 (b)).

Andy Gheorghiu (2020) is not optimistic about hydrogen. Citing the International Renewable Energy Agency, he claims that 95 percent of the hydrogen currently available worldwide comes from coal or natural gas, and five percent comes as a by-product of chlorine production. Gheorghiu argues that hydrogen would only be truly climate-friendly if it were produced 100 percent by solar or wind power. Gheorghiu’s second argument suggests that hydrogen can only be fed into the existing gas network in Germany at concentrations up to five percent. Therefore, using 100 percent pure hydrogen in a fossil gas network would require a “completely new” or “totally upgraded” infrastructure. Moreover, the author argues that fossil LNG terminals are also not suitable for storing hydrogen (Gheorghiu 2020).

The successful implementation of the *Energiewende* requires a paradigm shift in competition among gas exporters. It is expected to be a competition for a cleaner gas supply than competitors. The infrastructure for the delivery of fossil gas today paves the way for green gas cooperation in the new energy era. The contrasting positions of green hydrogen and blue hydrogen are the main and controversial issue in the domestic discussions on the German national hydrogen strategy (Dickel 2020: 3). In the prospects for cooperation between Germany and gas exporters, the decisive factor is what will prevail in the negotiations. Blue hydrogen leads to gas activation, which is more in line with the interests of gas exporters. Dickel (2020) predicts a significant shortage of green hydrogen in the near future, leading him to believe that “blue hydrogen produced from natural gas has to be the pioneer in the decades to come, paving the way for the later use of green hydrogen.” (Dickel 2020: 4-5). The author also notes that gas decarbonisation to blue hydrogen is possible without using the necessary facilities (Dickel 2020: 32), which makes it economically more attractive. In all scenarios, the new era requires the adaptation of the existing gas infrastructure to facilitate the flow of green gas. Kirsch (2020) supports the most cost-effective option for the post-fossil fuel era: “The energy deal of the new era must be energy efficient, as well as economically beneficial for Germany.” (Jörg Kirsch. BMWi. Author’s interview. September 2, 2020).

5.7. The *Energiewende* as a Game Changer in German-Russian Gas Relations

The *Energiewende*’s influence on German-Russian gas relations was mainly related to the role assigned to fossil fuels. The *Energiewende* posed a radical challenge to the development of German-Russian gas relations, as it calls into question the environmental acceptability of this fossil fuel and thus, the future role of gas in the German economy (Bros et al. 2017: 25, Gustafson 2020: 361, 393). The NS2 project was perceived by environmentalists as an obstacle on the path to a green economy. One example was the environmental lawsuit filed by DUH against NS2 in July 2020 due to harmful methane emissions. Although the lawsuit was not accepted and the Federal Maritime and Hydrographic Agency approved the further construction of NS2, DUH appraised it as a lack of transparency and a concealment of environmental impacts of the project (DUH 2021). Referring to Germany’s energy transition, Kemfert (2021) argued: “Any investment in fossil infrastructure, including natural gas pipelines and liquefied natural gas terminals, will be a lost investment.” (Kemfert quoted by Hockenos 2021). Dirk Messner (2021), Head of the Federal Environment Agency (*Umweltbundesamt*) expressed a similar opinion: “Nord Stream 2 could quickly become something

of a dinosaur among energy projects, because we want to have [net] zero emissions by 2045.” (Messner quoted by Wintour 2021 (a)).

These arguments were countered by the CO₂ balance report of the Scientific Service of the Bundestag released in 2018, showing the advantage of transporting natural gas through pipelines over LNG transportation. The report argued that the transport of natural gas from Russia via pipeline to Europe had a significantly lower greenhouse gas profile comparing to LNG imports. In the base scenario, according to the report, the greenhouse gas emissions from LNG imports were 2.4 to 4.6 times higher than from the supposed imports through the NS2 pipeline. Most of the greenhouse gas emissions from LNG imports come from extraction and processing, liquefaction and transport. In the case of natural gas transport via pipeline, most of the greenhouse gas emissions come from the operation of the pipeline. The report indicated that pipeline natural gas imports to Europe show a favourable greenhouse gas profile compared to LNG imports in terms of their contribution to climate change and that even optimistic scenarios for LNG imports cause higher greenhouse gas emissions than pessimistic scenarios for pipeline gas imports. The study explained possible deviations between the results achieved and other studies of this kind by different issue years, as technological development leads to a reduction in emissions, which gives different results for the same study at different time periods (*Deutscher Bundestag* 2018: 11-13). This report, pointing out the environmental benefits of importing pipeline gas over importing LNG, indirectly supported gas imports from Russia to Germany. In an interview for this study, Kirsch (2020) mentioned the physical and technical aspects of the NS2 pipeline that could have benefited the gas supply through this pipeline, both economically and ecologically (Jörg Kirsch. BMWi. Author’s interview. September 2, 2020). Another positive argument in favour of Russian gas imports came from Peters (2020), claiming that the main environmental aspect of natural gas supply, which can significantly reduce CO₂ emissions in the value chain, is the availability of modern pipeline infrastructure and modern energy efficient compressor stations. Speaking in favour of the NS2 pipeline, the author believed that it met these environmental requirements (Peters 2020: 8). Nord Stream 2 AG itself also presented some calculations in favour of the environmental aspects of transporting natural gas through the proposed NS2 gas pipeline, although its bias in this matter cannot be ruled out. For instance, environmental argument in favour of gas over coal argued by the Nord Stream 2 AG suggested that if the NS2 capacity of 55 bcm were used as a substitute for coal, 160 million tons of CO₂ could be saved annually, thereby reducing emissions from electricity generation in the EU by 14 percent (*Nord Stream 2 AG* 2017: 3).

Natural gas proponents mainly view gas as an interim solution to the transition to sustainable energy sources. This is because at the current stage of development of renewable energy sources, gas cannot

be completely excluded (e.g. Russell 2021: 1, Westphal 2021: 4). The decline in domestic production, phasing out nuclear and coal-fired power generation reinforced the idea of natural gas imports. Germany's demand for natural gas imports is closely related to the feasibility of wind and solar power plants, hydrogen factories and electricity storage facilities. The future success of the Energiewende must be ensured by the current supply guarantees that stimulate the German economy industrially and technologically. It was this economic argument that stood behind the strengthening of Germany's gas cooperation with Russia. This point of view was supported by 21 out of the 31 respondents interviewed for this study, who attributed the strengthening of gas relations between the two states to the view that natural gas was seen as an interim energy supply solution in the context of Germany's energy transition.

The economic basis for the NS2 project was thus tied to shifting energy supplies. Eventually, the Energiewende led to a slight increase in gas imports, and the NS2 pipeline was economically justified by the supposed higher demand for gas. Gustafson (2020) considered the Energiewende to be "bad news for Russia" in the long term. Accordingly, it was in the interests of Russia to benefit from a timeframe when renewable energy sources could not compete with gas imports in terms of pricing (Thane Gustafson. Georgetown University. Author's interview. April 8, 2020).

Kirsch (2020) believed that gas demand in Germany would grow in the next decade, but even in the absence of growth, demand would remain at the current level without decline (Jörg Kirsch. BMWi. Author's interview. September 2, 2020). The prospect of increasing the use of natural gas in the German energy mix was based on economic considerations, the decisive factors of which were affordability and cost-effectiveness. Russian gas was considered cleaner than coal and cheaper than renewables (Christof van Agt. IEF. Author's interview. March 19, 2020). In an interview for this study, long before the Russian invasion of Ukraine in 2022, Bergschneider (2020) expressed his opinion as to why Russian gas was seen as "supply insurance" for Germany and Europe, linking it to the expected cessation of gas production in the Netherlands, the reduction in Norwegian gas imports, and economic competitiveness of Russian pipeline gas compared to LNG imports (Claus Bergschneider. Former Gazprom Germania Chief Representative. Author's interview. September 3, 2020). This argument about the economic benefits of Russian gas is discussed in the relevant chapters of this dissertation. Seventeen out of the 31 respondents interviewed for this study, including Claus Bergschneider, Christian Cleutinx, Kirsten Westphal, Thane Gustafson, Jonathan Stern, Christof van Agt, Simon Schulte and others, considered that the total system cost of importing Russian gas made it more economically attractive than other alternatives. In summary, before the Ukrainian crisis of

2022, Germany's energy transition, made German investments in cooperation with Russia cost-effective.

The German energy transition also prompted Russia to develop a national hydrogen strategy. Prior to the Ukrainian crisis of 2022, Germany and Russia were laying the groundwork for hydrogen cooperation. Referring to various scenarios for cooperation in the post-fossil fuel era, Russian Energy Minister Shulginov (2021) believed that Russia "should definitely consider them all" in order to ensure its participation in joint projects with countries such as Germany (Shulginov quoted by the *Ministry of Energy of the Russian Federation* 2021).

Data on gas imports show that Russia's market share increased from 2009 to 2021. On the other hand, while gas imports from Russia increased, the supply contracts had become more flexible¹⁶, which could act as a counterweight (Andreas Heinrich. University of Bremen. Author's interview. April 15, 2020). It can be argued that the new market rules that had made gas relations between Germany and Russia more flexible were partially driven by Germany's transition to sustainable energy sources. The growing success in renewable energy development and energy efficiency strengthened Germany's bargaining power in its relations with gas exporters. The *Energiewende* was a turning point in energy relations between Germany and Russia, gradually shifting the balance of power in Germany's favour. While the *Energiewende* had strengthened Germany's gas dependence on Russia in the short term, it could have made Russia vulnerable to its energy trade with Germany in the long term.

A distinctive element of using the existing gas infrastructure in the post-fossil era is the ability to convert renewable electricity into hydrogen (Eduard Schmitke quoted by *Gazprom Export* 2021 (d): 23). The pace of renewable energy development in Germany can make this prospect a reality in the coming decades. The arguments, which could have ensured the continuous operation of the NS pipeline network, carried economic benefits for the German companies involved in the project. This, in turn, added economic benefits to natural gas cooperation between the two states.

The main idea of this chapter was to enable the reader to better understand the economic motives behind the intention to enhance Germany's gas relations with Russia in the period between 2009 and 2021. To explain these motivations, the chapter detailed the changes in the German energy balance brought about by the *Energiewende* and the role given to gas in that balance. The chapter explained

¹⁶ See Chapter 6.

what economic motives were behind the strengthening of cooperation between Germany and Russia, without consideration of political aspects. At the same time, the chapter highlighted the important political function of the Energiewende in reducing dependence on fossil fuel exporters.

6. THE EU AS AN INSTITUTIONAL ACTOR IN GERMAN-RUSSIAN GAS RELATIONS

This chapter presents an analysis of the impact of the EU as a political and regulatory actor on German-Russian gas relations, which follows from the EU's energy market regulatory framework. It is this framework that has fundamentally altered the legal basis of gas relations between the two states. The chapter begins with a brief description of the EU's role as a supranational power and regulatory actor in the international system, with an emphasis on energy relations. It then provides an overview of the development of gas relations between the EU and Russia from geopolitical and geoeconomic perspectives, highlighting the corresponding changes in the balance of power between the parties. Since the focus of this study is on gas relations, the chapter focuses on political economy without considering geopolitical factors as a subject of in-depth analysis. In the next step, the chapter discusses how the gas-related energy regulation originating in Brussels is transposed into German law and the impact of EU market regulations arising from its liberalisation efforts on German-Russian gas relations. It also discusses whether the NS2 project was in line with the regulatory context of the EU energy market. The last section of the chapter describes the different perceptions of the security of gas supply within the EU and the interaction between the EU as an institutional actor and Germany with regard to Russian gas supplies, with an emphasis on the phenomenon of influence.

6.1. The EU as a Regulatory Actor

The EU is a legal entity participating in the important formation of a system of international relations and a center of power striving to promote security and progress in Europe. Citing the interconnected EU economic market, Roderick Kefferpütz (2021) calls the EU a “connectivity power” with “global regulatory influence” (Kefferpütz 2021). As a unique supranational power, the EU is both an economic and a political union. With its advanced level of integration, the EU has not only a feature of a common market, but also a feature of generic foreign and defence policies (Cohn 2014: 214-227). As it grows in importance as a “security and defense actor”, the EU is building up its security capacity and improving its crisis management operations (Besch 2021). The EU represents a “federal political system” rather than a convention among independent states (Cohn 2016: 314).

Under the *principle of conferral*, set out in Article 5 of the Treaty on EU, the EU acts within the limits of the competences conferred upon it by EU member states. Competences not conferred on the EU

by the Treaties remain with EU member states. According to the Lisbon Treaty, the division of competences between the EU and its member states falls into three main categories: *exclusive competences* (Article 3), *shared competences* (Article 4) and *supporting competences* (Article 6). In accordance with exclusive competences, the EU alone can legislate and enact binding acts. The involvement of EU members is possible only if empowered by the EU. Shared competences provide for the participation of EU members in legislation and the adoption of legally binding acts, while the EU, as an institutional body, does not exercise its own competence. Economic, environmental and energy related issues fall under the shared competences. The EU's participation is provided only for supporting, coordinating or complementing the actions of EU members (*EUR-Lex* 2016).

In “A liberal actor in a realist world”, Andreas Goldthau and Nick Sitter (2015) view the EU as a regulatory state when it comes to its external policies. The authors believe that despite changes in the political economy of the global energy sector, the EU has retained its liberal profile and continues to act as a liberal regulator in a realist world (Goldthau & Sitter 2015). At the same time, the authors observe several significant exceptions to the liberal principles of the EU in the governance of regional gas markets, which they believe are “a selective and indeed targeted use” of the regulatory powers of the EU towards its external suppliers. Certain pipeline projects, for instance, may receive direct funding from the EU. The EU also reserves the right to allow exceptions to existing rules, such as shown in Article 36 of the 2009 Directive. These exceptions apply to new infrastructure projects, changes to existing infrastructure, or any other modifications to improve European supply security. The two onshore extensions of the NS pipeline were among those benefiting from EU exemption grants. These are the OPAL (*Ostsee-Pipeline-Anbindungsleitung*) pipeline¹⁷ in Germany and the Gazelle pipeline in the Czech Republic. During the escalation of the 2014 Ukrainian crisis, when the conflict between Russia and Ukraine dominated the agenda between the EU and Russia, the EU postponed a decision on requests for further Third Party Access (TPA) exemptions for OPAL (Goldthau & Sitter 2015: 85-90). The NS pipeline did not receive additional exceptional benefits from the EC, which is indicative of the EU's realist stance on appropriate commercial issues. In an interview for this study, Sandu-Daniel Kopp (2020) shared the view on the EU's realist position and expressed his belief that the EU is becoming an increasingly political actor, driving an energy strategy (Sandu-Daniel Kopp. BDEW. Author's interview. September 9, 2020). This argument is countered by Nicole Koenig (2019) of the Hertie School Jacques Delors Centre, who views the EU as a weak

¹⁷ OPAL is the largest gas pipeline in Northwest Europe. The OPAL pipeline, 473 km long with a capacity of 36 bcm, leads from the Baltic Sea through Mecklenburg Western Pomerania, Brandenburg and Saxony to the Czech border in the near of the grid connection point Brandov.

player in a geopolitical context, which the author mainly attributes to the EU's fragmentation (Koenig 2019: 3-4).

With the launch of the common and integrated energy and climate policy by the EU in 2007, a new era in the EU energy policy started. Since then, EU energy policy has been based on a strategic triangle, involving *sustainability, competitiveness and energy security* for which member states have shared competences. Article 194 of the Lisbon Treaty on energy and security of supply issues made these areas of joint competence. Although EU member states retain their autonomy in determining their own energy balance, the integrated internal market, ensuring overall security of supply and the implementation of infrastructure projects of common interest require concerted action. This regulatory role gave EU decision's significant impact on German-Russian gas relations. The instruments used by the EU can be mainly viewed as a form of "soft power". These regulatory instruments are liberal in nature and aim to ensure the competitiveness and transparency of gas deals. "Hard power" instruments such as politically motivated sanctions or economic punishment have also been used by the EU in relation to Russia, but their direct impact on gas relations between the two economies prior to the Russian invasion of Ukraine in 2022 was elusive.

The setting of the agenda within the Union is largely determined by the Commission as "an executive body, a legislative initiator and a negotiator with third parties". Accordingly, the EC has had the strongest position among the EU institutions (Fernandes 2022: 39). The unique institutional structure and sufficient authority of the EU does not exclude substantial control by its member states. It is much more complicated for the EU to operate as a single unit in ensuring the supply of natural gas and energy security in general (Cohn 2014: 214-227). EU energy policy affects national, European and international levels, with member states maintaining significant control over energy production and their energy balance, and the Commission regulating trade and transit. While the member states can subsidise different types of energy, regulate energy consumption and form energy markets, the main instruments of the Commission are those of the regulator. The EU is better suited to regulate and can better deal with certain market issues at the supranational level, which gives it a comparative advantage over states (Goldthau & Sitter 2015: 33-46).

6.2. Geopolitical and Goeconomic Development of the EU-Russia Energy Relations

From a goeconomic point of view, EU-Russian relations were increasingly determined by energy politics. Energy trade was of strategic importance for EU-Russian relations, where both parties were committed to ensuring stable and reliable energy markets for energy imports and exports. Since the economic growth of Russia is directly proportional to the dynamics of its energy exports, Russia's relations with the EU, its then largest trading partner and the major source of foreign investments (Fernandes 2022: 39) were of great geopolitical and goeconomic significance. Due to the relatively few sources for gas supply, the security of natural gas supplies is of particular concern for the EU. Russia accounted for 43.5 percent of hard coal, 26.8 percent of crude oil and 34.3 percent of gas imports (natural gas and LNG) to the EU in 2019. The share of other large gas importers to the EU in the same year (2019) compared to Russia was much smaller, where Norway accounted 13.2 percent, Qatar 8.3 percent and Algeria 7.7 percent (*Eurostat* 2021 (b)). Russia's share of EU gas imports (including LNG) in the period from 2009 to 2019 increased from 26.9 percent to 34.3 percent. In value terms, Russian gas exports to the EU in 2019 amounted to \$17.9 billion (Russell 2021: 2). The relationship of the EU, a key regulator in the European gas market, with its main energy supplier, Russia, was completely different from its relations with other suppliers such as Norway or Algeria, in that in the former case political considerations in commercial relations did exist.

Energy relations between the European states that are now members of the EU and the former USSR, date back to the late 1950s, when oil and gas pipelines were built to Eastern European member states of the CMEA. The beneficiaries of Soviet energy included East Germany, Poland, Czechoslovakia, Hungary, Romania, and Bulgaria (Closson 2009: 91). Since the late 1960s, several short gas pipelines running to Western Europe were connected to form a giant pipeline network linking (Soviet) Russian gas fields to many EU states. At the time of this initial gas cooperation between Western Europe and Soviet Russia, natural gas production in Western Europe was in decline, while consumer demand was growing. While an increased share of coal in energy consumption could act as an alternative to gas imports, the negative ecological consequences of coal utilisation and the high costs of coal compared to natural gas prevented the implementation of this alternative (for a detailed description refer to: Högselius 2013, Gustafson 2020). The first gas imports from the USSR to Western Europe were to Austria in 1968. In the next years the list of importers expanded to include Italy, Germany, Finland and France.

In the late 1960s, the issue of the price of imported gas was very essential for the EU (Kandiyoti 2015: 37). Per Högselius (2013) and Rafael Kandiyoti (2015) believe that natural gas imports from the USSR had an economic basis and were intended to stimulate the general dynamics of competition in the Western European gas market. To make these competitive dynamics effective, Western European gas importers held parallel negotiations with several potential gas exporters. For instance, while negotiating with the Soviets, German Ruhrgas was simultaneously renegotiating its earlier agreement on Dutch supplies and seeking access to supplies from Algeria; Italian ENI at the same time negotiated with the USSR and the Netherlands, playing them against each other; French GDF in turn, was simultaneously negotiating with the USSR and Algeria. Cooperation with the USSR on gas imports in general would affect the monopoly position of the American ESSO and British Shell, which were in control of Dutch gas exports, as well as the Algerian state company Sonatrach. Such business tactics stimulated the overall competitive dynamics in the European gas market (Högselius 2013: 225, Kandiyoti 2015: 37).

Another advantage was that for Soviet gas imports, the estimated distances for pipeline construction were relatively short, making gas trade with the USSR more profitable compared to other alternatives. Gas relations with the USSR were largely supported by the governments of major importing countries, in particular Germany, Austria, France and Italy. The major actors involved in gas trade were import and distribution companies of these states (Kandiyoti 2015: 35-37). Large-scale gas exports to Western Europe began with the Urengoy-Uzhhorod pipeline commissioned in 1984 (Russell 2021: 2). The USSR played an essential role in increasing the overall competitiveness of natural gas compared to other fuels in Western Europe, which in turn, contributed to the overall popularity of natural gas in Western Europe (Högselius 2013: 225). Decades of natural gas cooperation between the two blocs were complemented by infrastructure developments, which laid the foundation for further cooperation.

At the early stages of Russia's emergence as a unitary state after the dissolution of the USSR, there was no unified EU strategy towards Russia (*EC* 2000: 23). The strategic framework steering relations between the EU and Russia started to change in 1994. This was reflected in the signing of key agreements of strategic importance between the parties. Especially important was the 1994 Partnership and Cooperation Agreement (PCA) as it provided the framework for political and economic relations. The PCA entered into force in 1997¹⁸ for an initial 10-year period and has been

¹⁸ The lengthy ratification process was largely influenced by Russia's first war in Chechnya, which led to the postponement of the EU ratification process. After a subsequent period of peace in Chechnya, the ratification process resumed in 1996 (Tichý 2019: 15).

renewed annually since 2007. The scope of the agreement covered political dialogue, as well as a large range of commercial points like business and investment, trade, economic and financial cooperation, including, but not limited to industrial development, transfer of know-how and technical assistance, exploration of new sources of supply and of new markets, as well as legislative cooperation (*EUR-Lex* 1997). The PCA also offered the prospect for deeper integration in the future, bringing Russia more in line with the legal framework of the single European market, thereby easing cooperation between the EU and Russia. EU policy towards Russia included broader efforts to expand governance beyond its own borders, which included incentives for Russia to move closer to EU regulatory standards in exchange for specific economic benefits (DeBardeleben 2022: 60). In economic and financial terms, the EU was increasingly relevant for Russia (Freire 2022: 418). Russian political scientist Nadezhda Arbatova (2021) notes that in the first decade of the existence of post-Soviet Russia, on a wide range of issues, the Kremlin simply followed the political line of the West, but this policy did not gain widespread domestic support (Arbatova 2021: 22).

Until the early 2000s, relations between the EU and Russia developed on a positive note. In the first EU common strategy towards Russia, issued in June 1999, Russia was referred as “a stable, democratic and prosperous Russia, firmly anchored in a united Europe”, which points to a positive approach and the particular importance attributed by the EU to Russia. It is also clear that the EU assessed Russia as a powerful actor to cooperate on security and stability “in Europe and beyond” (*Council of the EU* 1999: 7-18). This positive attitude towards Russia, on the one hand, could be related to the continuous Russian influence on the post-Soviet space, including the former Soviet Bloc of the Eastern Europe. On the other hand, this positive attitude could be the key to resolving any potential conflict with Russia. Despite its economic weakness, as a nuclear power, Russia was still powerful enough to raise a potential security risk for Europe. From a geopolitical point of view, cooperation with Russia was aimed at creating interdependence between the two parties, which would contribute to the predictability of Russia for the EU, allowing some control over Russia’s political ambitions and ensuring stable relations between the parties.

After Putin’s assumption of the post of prime minister in 1999, Russia’s relations with the EU entered a new era. Putin was personally involved in the creation of Russia’s strategy towards the EU (Lynch 2004: 99). The year 2000 was an important mark in energy relations between the EU and Russia. In 2000, EC President Romano Prodi initiated the EU-Russia Dialogue in order to strengthen energy relations between the two. Prodi (2000) stressed the “strategic partnership” with Russia, as well as the necessity of mobilising “big economic resources for possible investment projects in Russia” (Prodi quoted by *The Moscow Times* 2000). In turn, Putin (2000) noted Russia’s readiness to

contribute to European energy security in the long term. “Energy cooperation is important and appealing for Russia because it involves attracting additional capital investment.” (Putin quoted by *The Moscow Times* 2000). The EU-Russia Energy Dialogue aimed to overcome certain contrasts between the sides, having different market structures, through which to facilitate energy trade between them. Through this Dialogue, the EU also sought to adjust its position towards Russia.

The ratification of the Kyoto Protocol by Russia in 2004 allowed energy cooperation to move further upwards between the two parties. The Kyoto Protocol was the first impetus for putting climate issues on the political agenda of the Russian government. The ratification by Russia was necessary for the Kyoto Protocol to enter into force, because the treaty determined that not only a majority of countries approve it, but that signatory countries account for 55 percent of global emissions (*Deutsche Welle* 2004). This ratification was assessed as a “deal” between the EU and Russia in support of Russia’s accession to the World Trade Organization (Kotov 2004: 158), which was completed in 2012. The ratification of the Kyoto Protocol ensured the expansion of the EU export market to Russia, as well as the provision of significant and sustainable energy flows from Russia to the EU.

In the early 2000s, the relations between the EU and Russia were mainly commercialised, giving greater attention to the economic dimension of the relations (Westphal 2005: 5, Fernandes 2022: 38-39). In order to strengthen economic partnership, the sides had separated political conditionality from economic cooperation. This pragmatic cooperation, argued Westphal (2005), had even subordinated some of the main objectives of the EU’s common strategy towards Russia, leaving commercial issues at the top of the agenda (Westphal 2005: 5). Since the 2000s, the EC has gradually expanded its formal role in energy deals with Russia. In the Country Strategy Paper for 2002-2006, the EC stated its “key interest in maintaining and enhancing Russia’s role as a secure and reliable supplier of natural gas and oil on favourable conditions to the EU market”, which points to the obvious commercial interests of the EU in Russia. These commercial interests were reinforced by geopolitical factors: “Due to its size and location, Russia is a key actor for the stability and security of the entire European continent and a bridge between the EU and Asia. ...Russia is naturally a factor for many EU policies.” (EC 2001: 2-4).

Political perception of energy relations between the EU and Russia increased in the course of the EU’s eastward expansion in the mid-2000s, when new member states brought to the Union the legacy of their former dependence on Moscow (Kandiyoti 2015: 2; Lang & Westphal 2017: 14). This enlargement, which had a “transformative effect” on EU-Russia relations (Freire 2022: 418-419, Romanova & David 2022: 1), strengthened the political power of the EU, while provoking Russia’s

counteraction (Khudoley & Raš 2022: 15). The countries of the Eastern Europe were in the aspects of geography, economy and political culture closer to Russia, which came from the legacy of the Soviet Bloc. The Russian government carried out deliberate efforts to regain Russia's influence over Eastern Europe. The Eastern European states, in turn, felt that over-dependence on Russia was a threat (Patrahau & Van Geuns 2021: 17); this provided them with a political impetus to be linked more closely with the West. This situation gave rise to a latent rivalry between the EU and Russia. The Eastern factor was prominent in the energy negotiations between the EU and Russia, as in the case of the NS2 project.

In the mid-2000s, as links between the EU and Russia developed, divergence in their views and interests became apparent (Westphal 2005: 8-13). The sharp increase in energy prices between 2003 and 2008 contributed to the redistribution of power in international energy markets in favour of energy-rich states. This trend led to some asymmetry in the interdependent relations between energy producing and consuming states (Esakova 2012: 137-153). With its increased market power, Russia started to view itself as an “energy bridge” between the West and the East, which was much more than being only an exporter of own energy products, but also as a hub in the East-West transport corridor of global energy resources. Vivid evidence of this strategy goal was a series of deals concluded by Gazprom with alternative gas suppliers to Europe – Libya, Nigeria, Algeria in the mid-2000s, aimed at outbidding alternative suppliers in order to achieve full control over the gas flow to Europe (Grant 2011: 180-181).

Despite the growing market power of Gazprom, the study shows that over time the EU has gained more leverage over Russia than Russia did over the EU. This allowed the EU to use legal instruments in its relations with Russia to its own advantage. For instance, by launching an investigation into so-called destination clauses in gas contracts in 2012, under which buyer's freedom was restricted by exporters, the EU made deliberate efforts to defend its internal interests. Prior to this, buyers were restricted in reselling gas anywhere in the EU or had to share the profit in the event of a resale. Moreover, in accordance with EU competition rules (Article 102 of the Treaty on the Functioning of the EU), the Commission may invalidate transactions subject to cross-border trade restrictions. The agreement between Gazprom and EU antitrust regulators on reforming pricing structure and improving competition (EC 2018) was another example of Gazprom's concessions. The main achievements of the EU in this regard have been increased competition and competitive gas prices resulting from unbundling and liberalisation efforts.

A study conducted by Martin Russell (2021) of the European Parliamentary Research Service (EPRS) concluded that while the Green Deal envisions a zero-carbon Europe by 2050 (EP 2019), natural gas remains a key element in the EU's energy mix, which the author explained by the coal phase-out and the inability of renewables to fill this gap entirely (Russell 2021: 1). Moreover, the recognition of gas as a transitional fuel under Article 10 (2) of the *Taxonomy Complementary Climate Delegated Act* (EC 2022 (b)) opened the possibility for a longer presence of gas in the European energy mix. Russell (2021) argued that the EU's declining domestic gas production strengthened its reliance on gas imports, while the lack of "enough gas at affordable prices from alternative suppliers" led Russian gas to win in the EU gas market (Russell 2021: 1, 3). Russia's energy market power in the EU was largely based on the economic profitability of Russian gas imports compared to other alternatives (e.g. Branimir 2016: 3, Abdelal & Bros 2020: 123, Russell 2021).

Both the EU and Russia are politically strong in the international arena with asymmetries in favour of the EU. Sandra Fernandes (2022) explained this asymmetry from an economic perspective based on the fact that the EU was the biggest trading partner and the largest foreign direct investor in Russia, while Russia was the fourth largest trade partner of the EU, with a predominance of energy exports (Fernandes 2022: 39). In their energy trade, Russia was represented by a single negotiating unit – Gazprom, while under the EU various governments and private companies were "hiding", each of which primarily pursued its own interests. Attitudes towards cooperation with Russia also varied within the EU as an institutional actor. This divergence was evidenced by the positive stance of the EC and the EU Council in respect of developing trade cooperation with Russia, which was opposed by the European Parliament (EP), considering that Russia deviates from EU standards (Fernandes 2022: 39).

The influence of geopolitics on the energy business is stronger today, which leads to the politicisation of energy markets in Europe, and accordingly, a political assessment of commercial matters (Steffen Hartmann. Nord Stream 2 AG. Author's interview. August 19, 2020; German fossil-fuel industry representative. Author's interview. January 25, 2021). From a geopolitical point of view, the relations between the EU and Russia were rich and diverse, obscuring numerous linkages and interdependencies, often influenced by events largely outside the control of both the EU and Russia. These external events included but were not limited to declining U.S. hegemony, growing competition between the United States and China, NATO expansion, the Syrian factor, influence over the post-Soviet space, the Ukrainian crises of 2014 and 2022, which significantly affected the relations between the EU and Russia. The Russian energy diplomat (2020) interviewed for this study assessed Russia's relations with the West being consisted of three major players, involving Germany, the EU

and the United States: “Germany is not our [Russia’s] best friend, but Germany is in favour of cooperation with Russia. The United States is definitely against Russia, while the EU is in the middle of the two, being closer to the United States.” (Russian energy diplomat. Author’s interview. June 8, 2020). The EU’s historical legacy has made it a close ally to the United States, the world hegemon in an asymmetric rivalry with Russia, which, in turn, has increased the political power of the EU in its relations with Russia. Maria Raquel Freire (2022) believes that relations between the EU and Russia were largely influenced by the way these two actors interacted with the United States (Freire 2022: 417). The sides quite often had conflicting interests in geopolitical, military and regional security issues. Since the NS2 project was launched in the aftermath of the 2014 Ukrainian crisis, this project was perceived as a challenge to the European security order. Therefore, the construction of the pipeline was surrounded by security and military considerations (Lang & Westphal 2017: 26; Schmidt-Felzmann 2022: 211-212). The completion of the pipeline coincided with the Ukrainian crisis of 2022, which had a stronger impact on the project. This testifies to the EU’s realist approach to the issues of energy and economic security.

6.3. New Rules of the Game – When Politics Influences Business

Energy policy developments at the EU level are largely determined by the changing dynamics of decision-making (Goldthau & Sitter 2015: 32). European energy market suffered from a lack of competition and weak integration between markets, the solution to which was found in the effective ownership unbundling model (Saunders & Gray 2008), namely in the adoption of the third energy package. The third energy package, presented by the EC in 2009, was aimed at strengthening market integration to achieve a single internal energy market and market competition. Under the third energy package, the Third Gas Directive (2009/73/EC) and Regulation (715/2009) reflect the conditions for access to natural gas transmission networks.

The internal energy market model proposed by the EU can be said to have been a politically motivated goal of geographic diversification of import sources, accelerated by complex relations with Russia. Lang and Westphal (2017) believe that it was Gazprom that influenced the decision on the third energy package and the unbundling within the EU. Targeting Gazprom, the Commission sought to restrict the acquisition of transport infrastructure by third country representatives. This legislative aspect did not come into force, but ultimately, according to the package, investments from third countries must be reviewed by the relevant national anti-monopoly body and confirmed by the Commission (Lang & Westphal 2017: 14).

The differences between the EU and Russia, both in terms of market structure and legal framework led to a discrepancy in the legal basis for cooperation between them, where one can observe the incompatibility of monopolistic and liberalised energy markets that nonetheless were co-dependent and had to cooperate with each other (Christof van Agt. IEF. Author's interview. March 19, 2020). The transformation of the European gas industry with a sharp change in market structure and business models required a corresponding adaptation by Gazprom:

- *Ownership unbundling under the new market requirements created certain risks for Gazprom of losing ownership and / or control over the largest assets of the European gas transmission system;*
- *The reciprocity clause aimed at limiting the investment activities of foreign energy companies operating in the EU gas transportation segment made it difficult for Gazprom to gain control over “strategically important” energy assets in the EU, in particular, gas pipelines. This affected the company’s vertical integration strategy aimed at gaining direct access to end consumers;*
- *Third-party access made it impossible for Gazprom to reserve the entire throughput capacity of gas pipelines, and also significantly complicated long-term access to the EU gas system;*
- *The transition to a new system for gas transportation to the EU with delivery of contracted volumes at gas hubs and mandatory reservation of gas transmission capacities at the borders of trade zones created legal risks for Gazprom, since this system became difficult to align with the company’s traditional business model based on bilateral LTCs with gas delivery points at the national borders of importing countries.*

The process of liberalisation made significant adjustments to the commercial and logistical dimensions of Russian gas supplies to Germany. Thus, for Gazprom, the introduction of the new rules resulted in uncertainty and prerequisites for a radical revision of the terms and mechanisms of LTCs for both gas supply and transit (Igbal Guliyev. MGIMO. Author's interview. May 7, 2020). Jonathan Stern (2020), who was the EU representative on the EU-Russia Gas Advisory Council during the introduction of the third energy package, said that Russia adapted to the new regulatory rules very slowly. During the first three years after the introduction of the third energy package, discussions between the EU and Russia on this topic were ending with each side defending its arguments without compromising. Around 2014, Russia began to realise that the third energy package is “not a bad thing” and that Russia could easily adapt to them. Stern recalled that there were many legal issues at

the time that were still not resolved, the impact of the new rules on specific projects remained uncertain. In fact, it was only in 2016 that the parties agreed on the specific implications of the new rules for their energy cooperation. Liberalisation affected Russia's relations with all European gas markets. But the impact of liberalisation on the Russia's gas relations with Germany was greater, according to Stern, because of the closer cooperation ties compared to other countries (Jonathan Stern. OIES. Author's interview. April 24, 2020). Russian energy diplomat (2020), familiar with the EU-Russia gas talks, considered that the regulations imposed by the EU on Russian gas supply projects often followed "double standards", which he attributed to a "geopolitical competition by the West with Russia" (Russian energy diplomat. Author's interview. June 8, 2020).

While, on the one hand, the EU's liberalisation measures, including the creation of spot markets, limited Russia's profits, on the other hand, they opened up other lucrative opportunities for its gas giant. Gustafson (2020) argues that Gazprom took advantage of sales on the spot markets, which were particularly successful amid declining gas production in the North Sea. Gazprom's United Kingdom spot sales through its alliance with Wintershall were particularly lucrative (Gustafson 2020: 304). Some respondents interviewed for this study shared the view that liberalisation did not negatively affect Russia's profits from gas trade in the EU. Piebalgs (2021) was one of those who did not see any negative aspects for Russia from liberalisation. Piebalgs believes that the issue was how Gazprom responded to the new market conditions (Andris Piebalgs. Former EU Energy Commissioner. Author's interview. March 24, 2021). In an interview for this study, Steffen Hartmann (2020) opined that European energy market liberalisation could benefit Russia. The interviewee came to this conclusion based on the increased overall volume of gas sold to the EU simultaneously with liberalisation, which pointed to the possible benefits of spot sales for Gazprom (Steffen Hartmann. Nord Stream 2 AG. Author's interview. August 19, 2020).

Under liberal market rules, competition is increased, reducing not only the buyer's dependence on the seller, but also the seller's dependence on the buyer. Since short-term gas deals are also beneficial for gas suppliers that were previously associated only with LTCs, large gas suppliers such as Russia were well positioned under the new rules. Sherstobitov (2020) believed that in the long term, liberalisation could have a positive impact on the transparency of Gazprom's operations, which would hinder the extraction of rent (Aleksandr Sherstobitov. Political scientist. Author's interview. August 31, 2020).

Another group of respondents for this study did not see a positive effect of liberalisation for Gazprom and perceived it as a challenge for the profitability of Russia's European gas business. For instance,

Kirsch (2020) believed that there was no positive effect of liberalisation for Russia, but Russia adapted to the new rules (Jörg Kirsch. BMWi. Author's interview. September 2, 2020). The Russian political scientist interviewed for this study argued that liberalisation created difficulties for Russia's gas business in Europe, hindering its profits (Russian political scientist. Author's interview. August 5, 2020). The Gazprom representative interviewed for this study mentioned both positive and negative impacts of liberalisation for Russian gas business. Accessing new infrastructures for the sale of gas was a positive impact for Russia, highlighted by the interviewee. "To adapt to the new rules, Gazprom required some optimisation and restructuring, but there is no definite answer to the question whether liberalisation was beneficial for Gazprom or not." (Gazprom representative. Author's interview. August 10, 2021). Referring to the South Stream and NS2 pipelines, Van Agt (2020) opined that liberalisation in some points hurt the investments made in land-based pipelines and led Gazprom and Russia to favour roads that side-step EU jurisdictions (Christof van Agt. IEF. Author's interview. March 19, 2020).

The EU liberalisation efforts have changed the features of the "politicisation" and "bilateralisation" of the gas market (Andreas Goldthau. Willy Brandt School of Public Policy at the University of Erfurt. Author's interview. April 16, 2020). Major regulatory changes implemented by the EU changed fundamentally the structure of cooperation between Germany and Russia. Liberalisation efforts ultimately achieved the desired goal in gas markets – competitiveness, both in terms of players and in terms of price. Competition, preventing monopoly in the market, in turn, led to lower prices. Significant changes also affected the processes of price formation for natural gas, which was reflected in the creation of a two-sector, or "hybrid" pricing system, which ultimately led to a significant increase in the share of short-term gas sales at spot prices on virtual trading floors against the background of a decrease in sales volumes within the framework of long-term take-or-pay contracts. The differential between spot prices and the prices of LTCs questioned the relevance of further pegging the gas price in take-or-pay contracts to the oil price and called into question the very economic model of LTCs (Igbal Guliyev. MGIMO. Author's interview. May 7, 2020). The transformation of the pricing mechanism required the price of gas to be tied to the global gas market, ensuring that it is determined based on a balance between supply and demand. This model, Gustafson (2020) believes, was designed for the benefit of importers, which, in turn, created certain risks for exporters. Thus, the new rules were in favour of European customers at the expense of Gazprom's benefits (Gustafson 2020: 303-304). This is the case with Germany and Russia, when gas-to-gas competition weakened Gazprom's assertive position in the European market, and in particular in Germany, and led it to make some commercial concessions.

The main impact of the liberalisation on gas trade with Russia was undermining LTCs, making supply contracts more flexible, thereby, weakening Gazprom's power over the German gas market. The EU eventually "faced down" Gazprom's insistence on fixed pricing, take-or-pay clauses and the prohibition of gas re-exports, which led to more competition and more flexibility in the German gas market. While German gas companies still seem to prefer pipeline gas, they are increasingly using the European spot market (Andreas Heinrich. University of Bremen. Author's interview. April 15, 2020). The increased value of flexibility resulting from the liberalisation of the gas market could not only be used for balancing of own demand variations but could also be capitalised through arbitrage between the contract price and the market price for gas (Claus Bergschneider. Former Gazprom Germania Chief Representative. Author's interview. September 3, 2020).

Bilateral gas deals in the form of take-or-pay contracts continue to operate in the structure of gas supplies to the EU. This supply structure has oligopolistic features, dominated by the national energy monopolies of the supplying countries. Long before the Russian invasion of Ukraine in 2022, Gazprom managed to maintain the traditional structure of LTCs, which testified to its voice in the European gas market. At the same time, Gazprom's weakened economic power in the German gas market limited Russia's ability to use market levers in reconciliation of political issues in its relations with Germany. The strong liberal push from the EU changed gas relations not only at German-Russian level, but also entirely at the EU-Russia level. This can be assessed as a deliberate step to prevent political-economic linkage in Russia's politics towards the EU.

The EU's regulatory power in German-Russian gas relations was visible on the example of the NS2 project. The most effective instrument used by the EU in relation to NS2 was internal market regulation. Yet, as Westphal (2021) noted, Brussels' regulatory power was undermined by Washington's opposition to NS2, thus raising the question for the EU to what extent it was strategically capable of acting in the energy sector with and vis-à-vis the United States (Westphal 2021: 3).

Since its launch, NS2 was surrounded by a difficult political environment and an unclear regulatory framework. Regarding NS2, there was no regulatory regime accepted by all parties (Russell 2021: 4). This is reflected in the official response to the parliamentary question in 2015, which stated: "At this moment the Commission does not have sufficient details about the project and the regulatory regime which would be applicable." (Parliamentary questions. E-012736/2015). At the same time, the response continued: "The Commission recalls that any gas pipeline on EU territory must be built and operated in full compliance with applicable EU legislation, including the Third Internal Energy

Market Package, and public procurement and competition rules. The Commission will, in close cooperation with the relevant national regulatory authorities, ensure compliance with these rules.” (Parliamentary questions. E-012736/2015). Politically, the NS2 project was in contradiction with the EU’s goal of diversifying gas supply sources and reducing dependence on Russian gas imports (*European Political Strategy Centre* n.d.: 2, Šefčovič quoted by *EC* 2016, Dudek & Piebalgs 2017: 2, Lang & Westphal 2017: 12, Umbach 2018: 2). At the same time, relevant EU and EC official documents were emphasising the importance of natural gas imports. It was the demand for gas imports that required a search for regulatory levers to keep cooperation with the Russian gas monopoly under control.

Following the announcement of NS2, debate in the EU focused on whether the new pipeline was subject to regulation under the third energy package. The categorisation of the pipeline was a decisive factor for its regulation in accordance with EU rules. When operating gas pipelines in the EU, Regulation (EC) No 715/2009 on the conditions for access to gas transmission networks and the Directive 2009/73 /EC on general rules for the internal natural gas market, are of particular importance (Lang & Westphal 2017: 12, Dudek & Piebalgs 2017: 3). In accordance with Article 34 of Directive 2009/73/EC, the upstream pipelines are not subject to this package, and are regulated by the landfall state. This interpretation would allow Germany to retain the NS2 regulation within the jurisdiction of its national authorities. Referring to *Deutscher Bundestag* (German Parliament), Lang and Westphal (2017) define upstream pipelines as “part of the gas production process, transporting gas to other production-related facilities” (Lang & Westphal 2017: 13). Upstream pipelines end where commercial gas is fed into the transmission system. This definition could not categorise NS2 as an upstream pipeline, since NS2 connected German and Russian gas transmission systems (Lang & Westphal 2017: 13-14, Dudek & Piebalgs 2017: 3-4). Referring to this definition, the NS2 project could not remain in the jurisdiction of Germany, but should have been regulated by the EU, which indicates a regulatory role of the EU in German-Russian gas cooperation.

In the Gas Directive, pipelines carrying gas from third countries fall under a large definition. EU law also applies to offshore infrastructure under the jurisdiction of member states including their exclusive economic zones. This gave the EU an opportunity to dominate legal considerations and require that the third energy package and the core principles of EU energy market rules apply to NS2 (Šefčovič quoted by *EC* 2016). In the case of the NS2 pipeline, exclusive economic zones included Russia, Finland, Sweden, Denmark and Germany. When EU law applied to a part of the pipeline passing through the EU, a part of the pipeline passing through Russia had to be governed by Russian law. A challenging case in this regard was that the application of EU rules to a part of the pipeline passing

through the EU would affect the part of it passing outside the EU. Establishing rules for one part of the pipeline without consequences for the other was impossible (Dudek & Piebalgs 2017: 2-4), which required appropriate concessions between the parties. This indeterminacy led to the fact that a wide range of legal dimensions were able to be applied to the NS2 project. The gap in the legal framework allowed it to be used as leverage by both opponents and proponents of the project in their favour.

The application of the Gas Directive to NS2 would mean that Gazprom would have to comply with provisions on ownership unbundling (Art. 9), TPA (Art. 32) and non-discrimination in tariff setting (Art. 41). Adhering to the principle of ownership unbundling required that network ownership be separated from production and transportation. But Gazprom was represented as the sole shareholder of NS2. TPA was also not applicable in the case of NS2, as Gazprom had a monopoly on gas exports and, accordingly, had exclusive access to the pipeline, backed by Russian law. Under non-discriminatory tariff setting, pipeline access tariffs must be published and applied fairly and without discrimination to all eligible consumers. The application of these rules to NS2 was difficult given a large barrier between legislations of Russia and the EU as an institutional body (Dudek & Piebalgs 2017: 4, Lilkov & Freudenstein 2018: 5). Moreover, significant changes in the commercial side of the project could affect its feasibility (Lilkov & Freudenstein 2018: 5).

Kirsch (2020) considered that relations between Germany and Russia, represented by Chancellor Merkel and President Putin, were warmer than relations between the EU and Russia (Jörg Kirsch. BMWi. Author's interview. September 2, 2020). In order to be able to resolve controversial issues with the exporter, the German government was interested in keeping the legal issues of the project within its own sphere of competence. At an official meeting with the Russian President Vladimir Putin, the then German Vice Chancellor Sigmar Gabriel (2015), referring to the legal dimension of the NS2 project, stated: "What's most important as far as legal issues are concerned is that we strive to ensure that all this remains under the competence of the German authorities, if possible. So if we can do this, then opportunities for external meddling will be limited. And we are in a good negotiating position on this matter." (Gabriel quoted by *President of Russia* 2015).

Although the NS2 project implied a direct line between Germany and Russia, its implementation applied to many other states as well, making it necessary to involve external actors in the discussion of its implementation. The planning and construction process of NS2 was carried out in accordance with the provisions of the *United Nations Convention on the Law of the Sea* (UNCLOS) and the *Espoo Convention*, established by the United Nations Economic Commission for Europe. UNCLOS provides freedom to lay underwater pipelines but requires the consent of the state on the exact route

along which they pass through the exclusive economic zones and / or territorial waters. The aim of the Espoo Convention is to reduce the transboundary impact on the environment. Achieving this goal within the NS2 project necessitated the exchange of information and cooperation with neighbouring states such as Estonia, Latvia, Lithuania and Poland. The Espoo Convention was not ratified by Russia, but, as in the case of NS, Russia committed to comply with its provisions (Lang & Westphal 2017: 13).

In respect of regulatory principles of NS2, the EU Council and the EC experienced conflicting views, when the latter requested the former a negotiating mandate to liaise with Russia in the interests of the EU. The official response from the Council Legal Service (CoEU.12590/17) with a waiver of the negotiating mandate states: “Gas Directive 2009/73 does not apply to an offshore import pipeline with a third country such as Nord Stream 2... the areas covered, respectively, by the rules of EU law and by the envisaged agreement do not overlap” (EC 2017 (a)). Two months later, in November 2017, the Commission submitted a proposal to amend the original 2009 Gas Directive to ensure that the regulation would apply “to all gas pipelines to and from third countries up to the border of the EU’s jurisdiction” (EC 2017 (b)). The amendment was aimed at improving the functioning of the EU internal energy market and strengthening solidarity among member states. From the legal perspective, the amendment was aimed at closing the gap in the EU’s regulatory framework, as well as increasing competition in the domestic gas market. The proposed amendment targeted only subsea pipelines (not LNG), which put subsea pipelines at a disadvantage compared to onshore pipelines and LNG (Berkhahn et al. 2018: 5). After lengthy negotiations, in February 2019, the EU reached a provisional agreement to amend the Gas Directive to make it applicable to pipelines from third countries. The EU Directive 2019/692 overturning Directive 2009/73/EC can be assessed as one directly influencing the NS2 project. This amendment was perceived as an attempt to “bring the pipeline under the EU’s regulatory umbrella” (Burbeza 2019).

France and Germany agreed on a last-minute compromise amendment text limiting the applicability of the amended Directive to the territory and territorial sea of the member state where the first point of connection to its network is located. In the case of NS2, this state was Germany. By transposing the amended Directive into German law, the German regulator assumed the right and responsibility to ensure that the German NS2 section complies with the requirements of the Directive (Simon 2019 (b), Yafimava 2019: 1-2). In May 2020, the German Federal Network Agency rejected Nord Stream 2 AG’s application for an exemption from the Gas Directive. This decision was based on the fact that in order to receive the privilege, the gas connection line had to be completed by May 23, 2019 (BNetzA 2020).

The amended Directive had a positive impact on the compliance of NS2 with EU rules. According to the amended Directive, member state (in this case, Germany) is not required to apply the ownership unbundling, whereby the transmission system operator can act both as the owner and the operator of the transmission system in relation to the member state's section of a pipeline from a third country. Instead, the Amendment proposed several other scenarios in which NS2 might comply with the unbundling requirements besides ownership unbundling (Yafimava 2019: 3). This compromise meant Germany's direct regulation of NS2 and that only the EU section would be covered by the agreed changes in the EU Gas Directive. This amendment points to Germany's strong bargaining position in the EU. It is this strong bargaining power of Germany that distinguishes it from other members and was viewed by Russia as a "positive sign" in light of its difficult relations with the EU (Russian political scientist. Author's interview. August 5, 2020).

But Germany's bargaining power in the EU is not strong enough to withstand legal barriers that hamper its interests. Some EU rules ran counter to the commercial interests of German private companies and hindered the development of their bilateral gas relations with Russia. For instance, to implement a soft control over gas contract negotiations between EU members and third-country authorities, the Decision No 994/2012/EU reduced Germany's bargaining power in bilateral gas deals with Russia, thus, making the EC the major decision maker on behalf of Germany. The Decision obliges EU member states to inform the Commission of their existing and new bilateral agreements with third-country representatives. In accordance with this Decision, national authorities could invite EC representatives to participate in negotiations as observers (Decision No 994/2012/EU). The new rules were aimed at strengthening the bargaining power of EU national authorities and achieving a high level of transparency with respect to their cooperation agreements with third countries. This mechanism was intended as something of a "pressure point" on Gazprom (Christof van Agt. IEF. Author's interview. March 19, 2020) and served to the advantage of the EU as an institutional body, balancing Gazprom's natural tendency to enter into bilateral deals with the EU's liberalised energy market actors. In case of EU dissatisfaction with a particular agreement, the national authority is expected to cancel the deal with a third party. While improving the bargaining power of national authorities in their relations with energy exporters, this mechanism, at the same time, limits the decision-making power of national authorities relative to the EU. This means that when considering a certain gas deal with Russia, not only the national interests of Germany, but of the entire EU had to be considered, which could complicate the negotiation process and affect the outcome.

The legal framework envisaged for the external gas relations of the member states, including the NS2 project, clearly demonstrates the influence of the EU on German-Russian gas relations. It was this

legal framework that completely changed the structure of the gas deal between Germany and Russia. The regulatory impact of the EU on gas relations between Germany and Russia weakened the economic power of Gazprom in the German gas market, thereby limiting Russia's ability to use market levers for political purposes. At the same time, this regulatory impact somewhat limited Germany's regulatory power in its gas deals with Russia. Although Germany is the most influential EU member in terms of policy formation, it failed to prevent certain EU rules that complicated German-Russian gas relations.

6.4. Internal Rivalries – Influence that determines Political Choice

The EU's common energy policy aims to ensure the functioning of the internal energy market, security of supply, and the promotion of energy efficiency, renewables and the interconnection of transmission grids. Member states conduct their individual energy policies constrained in part by this framework. Since the 27 EU member states are at different stages of economic and technological development and have divergent energy patterns, there are divergent approaches to formulating and implementing energy policy within the EU. The large size of the EU creates certain challenges for collective action and complicates the adoption of common decisions that are in the interests of all member states (Westphal 2016: 39-43, Rawi Abdelal. Harvard Business School. Author's interview. May 7, 2020, Schmidt-Felzmann 2022: 212).

In addition to diverging national interests, the "private nature of energy corporations" also plays a role in the EU's lack of solidarity in energy infrastructure projects (Umbach 2018: 1, Patrahau & Van Geuns 2021: 21). Priorities of the individual member states do not always correspond to the overall priorities and strategy of the EU; and decisions at the level of private companies, governments, and the EU are not perfectly accommodated. The complex EU gas policy requires political compromises at both the state and the EU levels. While the main policy instruments employed by the EU are regulatory, member states can use a broader range of instruments, including subsidies, investment and direct ownership (Goldthau & Sitter 2015: 74-75).

Differences between EU members lead to the fact that the European gas market is not perceived as a common one, but rather as a mixture of various markets, differing from each other in respect of regulatory instruments, market integration, ownership and transport structures, sources of foreign supply and other features. The European gas market has been described by Iain Grant (2011) as follows: "Despite the considerable depth and breadth of European integration, labels like 'European

gas picture' should be used with caution. ...there is no 'European' gas market; rather, there are segregated national gas markets, each of which features its own 'recipe' of production, consumption, role of gas in the national energy balance, sources of foreign supply, and so forth." In his argument about the European gas dependence on Russia, Grant divided European countries into different groups in terms of natural gas supply and consumption, explaining why these large differences did not allow referring to a common EU position (Grant 2011: 79-80). Van Agt (2020) believes that the commercial limitations in information sharing inside EU competition and energy market rules inhibited a fully coordinated approach in relations with Russia (Christof van Agt. IEF. Author's interview. March 19, 2020).

The EU gas supply structure is not homogeneous. The varying degree of member states' dependence on energy imports from Russia led to divergent approaches to energy relations with Russia in internal debates. This, in turn, complicated the development of a coherent EU approach towards Russia. A stance by one EU member state could contradict the interests of one or several other EU members and therefore block cooperation agreements. Svyatets (2016) viewed internal disagreements within the EU as a reason for the lack of development in its deeper energy relations with Russia (Svyatets 2016: 126). Accordingly, possible conflicting interests encouraged Russia to give preference to bilateral negotiations with EU member states, which could run counter to overall EU policy interests (Locatelli 2010: 960). Westphal (2005) explained Russian interests in bilateral deals with EU member states: "Russia wants to build up the partnership selectively and focus on important issues of policy rather than seek an overall, transparent and equally applicable framework. This is a policy which has prompted Russia to seek closer and selective bilateral ties with the big member states such as Germany, France and Italy." (Westphal 2005: 13).

Divergence among EU member states is also visible in the effects of liberalisation and market integration. Describing the positive results of liberalisation and noting steady progress towards uniform market functioning, Gustafson (2020) viewed Southeast Europe as a "mosaic of exceptions" and argued that the new conditions did not work the same across the EU (Gustafson 2020: 320). Patrahau and Van Geuns (2021) concluded that despite the efforts to centralise energy policy among member states, "the EU still lacks the legislative capability to act on behalf of its members." Energy policy is a mixed remit, an important part of which falls within the national remit of the member states. National governments of the member states tend to emphasise different foundations of common energy policy in accordance with their sovereign interests (Patrahau & Van Geuns 2021: 18).

Internal differences encourage EU members to pursue their own policies of energy supply security and to act in ways different from each other. Possible conflicts between the member states, caused by their various preferences, require reconciliation with a reasonable compromise (Cohn 2014: 232). The weighting of the goals in the energy triangle – sustainability, competitiveness and energy security – depends on individual political priorities in member states and varies considerably (Lang & Westphal 2017: 26). Here one can see a clear picture of the NS and NS2 projects, bargaining between the EU and non-EU countries, which raised conflicting interests with the other EU members. These conflicting interests demonstrated significant differences in the objectives of Eastern and Western Europe, which, despite the stated consolidation, do not fully correspond to cohesion in the decision-making process.

The NS project had already exacerbated the rift between Western European member states that supported the project and Central-Eastern European member states that viewed it as a Trojan Horse – a tool for Russia’s economic and political dominance and a way to hinder the region’s efforts to diversify gas supply sources (*European Political Strategy Centre* n.d.: 2, Sziklai et al. 2020: 2). Unlike the NS project, in the case of the NS2 project, considering the 2014 Ukrainian crisis, the tension level in the debate increased. Bergschneider (2020) believed that it was not ideology that was behind some member states’ opposition to the NS2 project, but rather concerns about their own economic advantages (Claus Bergschneider. Former Gazprom Germania Chief Representative. Author’s interview. September 3, 2020). Christian Cleutinx (2020), international expert on energy security, shared a similar view, noting that EU members with a negative stance towards Russia, such as the Baltic states, and especially Poland, prioritised their own interests above EU interests. “This is evidenced by Poland’s challenging EC decisions on gas trade with Russia insisting on the lack of EU energy solidarity, while forgetting conveniently the huge EU subsidies it got for its natural gas import infrastructures to become independent from Russian natural gas supplies.” (Christian Cleutinx. International expert on energy security. Author’s interview. May 19, 2020). Arguments in favour of Ukrainian transit served the interests of the EU’s Central Eastern and Southeastern members, which were highly dependent on Russian gas supplies moving through Ukraine. The concern of these member states included the possible weakening of their bargaining positions in relations with Russia as a result of the loss of their transit status. The supposed changes in the gas transmission system of these states required the adaptation of their gas transmission networks to new interconnecting lines, which, in turn, could require additional investments (Lang & Westphal 2017: 24-29).

Initially, in addition to Germany, the NS2 project was supported by such EU members as Austria, the Netherlands and France (Umbach 2018: 1), arguing that the project was in the interests of the EU,

while opposed by such member states as Poland, Denmark, Sweden and the Baltic states, claiming that it would harm Ukraine and the European energy security (Schmidt-Felzmann 2022: 211). But a partial compromise was reached. On June 7, 2018, the Swedish government granted NS2 permission to build and operate the Swedish section of the route (*Government Offices of Sweden* 2018, *Nord Stream 2 AG* 2018), and on October 30, 2019, the Danish Energy Agency granted a construction permit for the NS2 pipeline section in the Kingdom's exclusive economic zone (*Danish Energy Agency* 2019, *Gazprom Export* 2019).

Strengthening the role of a gas hub with direct access to cheap Russian gas could have given Germany an improved commercial position among other European states. Bergschneider (2020) believed that the proposed Energy Union was an attempt to socialise this advantage by means of a centralised gas import for all EU member states. "For sure it had also been an approach to counterbalance the increasing market power of the leading gas supplier. But mainly the targets had been less altruistic but more focused on individual national interests. This would be especially true with regard to the opposition to the NS2 project." (Claus Bergschneider. Former Gazprom Germania Chief Representative. Author's interview. September 3, 2020).

Human rights-oriented political arguments were also used to pressure the NS2 pipeline. The imprisonment of Russian opposition politician Alexei Navalny was one of the factors that increased resistance to the project. However, while urging Russia to release Navalny (e.g. *Radio Free Europe/Radio Liberty* 2021 (a)), Berlin assessed this issue as unrelated to commercial relations with Russia. "Business relationships and business projects that have existed for decades are one thing and serious human rights violations and our reactions to them are another," stated then-Federal Minister for Economic Affairs and Energy Peter Altmaier (Altmaier quoted by *Radio Free Europe/Radio Liberty* 2021 (b)).

How a regulatory entity such as the EU acts, and the pressures and restrictions under which it operates, largely depend on the involved actors. Kirsch (2020) and Caspar (2021) believe that the personal factor of policy-making plays an important role in the EU. In the case of energy deals with Russia, this could also be true for the Energy Commissioner (Jörg Kirsch. BMWi. Author's interview. September 2, 2020; Oldag Caspar. Germanwatch. Author's interview. February 11, 2021).

It is worth noting that the EU Commissioner for Energy from 2010 to 2014, which is an important period for German-Russian gas cooperation under this research, was a German politician and a member of the CDU, Günther Öttinger. After Öttinger assumed the post, he outlined a policy strategy

for greater energy solidarity that would mark the end of bilateral energy deals with suppliers like Russia (*EurActiv* 2010). This policy strategy underlined Öttinger's loyalty to EU interests in limiting the EU's energy dependence on Russia. The Commissioner also stressed the need to replace future energy supply contracts signed between individual member states and third countries by European treaties. In the energy policy of the EU, Commissioner Öttinger distinguished three main aspects: *competitiveness, security of supply and sustainability* (Öttinger quoted by *EurActiv* 2010 (translated by the author)). Security of supply, especially in light of the decline in domestic production implied the import of conventional resources. In terms of energy supply security, the Commissioner highlighted diversification efforts with a focus on the Central Asia and the Caspian region, while Russia remained his priority choice for the import of natural gas. Later, Öttinger also defended the NS2 project against Donald Trump's attacks (*Reuters* 2018, *Handelsblatt* 2018), while noting that he "was never a great supporter" of this project (Öttinger quoted by *Reuters* 2018).

Öttinger's conventional energy orientation was in many ways in conflict with the proponents of the energy transition. In 2013, Öttinger was accused of intending to provide €101 billion in subsidies out of a total of €131 billion to coal and gas-fired power plants and the nuclear industry (*EurActiv* 2018). A Greenpeace expert Franziska Achterberg (2014) believed that Öttinger did not implement "good decisions" on sustainable energies, while then Greens Co-chair of the EP Rebecca Harms (2014) even believed that Öttinger was opposed to a successful energy transition (Achterberg and Harms quoted by Sarmadi 2014). According to Dario Sarmadi (2014), Öttinger's position in the EC was strongly supported by the two largest parties in Germany – the CDU and the SPD (Sarmadi 2014). Since both parties have strong ties with the fossil fuel industry, and the SPD promoted cooperation with Russia, the support from these parties could have influenced Öttinger's ideological stance on conventional energy. Öttinger's personal ties to top executives of leading German companies such as E.ON and RWE raised questions about the influence of the private energy sector on his policy decisions (*EurActiv* 2010, *ModernPowerSystems* 2010, Sarmadi 2014). Achterberg (2014) called this influence a "pressure from German companies", considering that Öttinger was "ranking German industry interests above his mandate as an EU Commissioner" (Achterberg quoted by Sarmadi 2014). In turn, Öttinger responded to such critics that he had no shares in energy companies. "I am the Commissioner proposed by Germany but I have European obligations." (Öttinger quoted by *ModernPowerSystems* 2010).

Despite the official support given to the NS2 project by the EU, the pipeline was not equally well perceived among its high-ranked officials. For instance, the then Commissioner for Climate Action and Energy, Miguel Arias Cañete (2016) expressed doubt that NS2 was consistent with the EU's goal

of security of supply (Cañete quoted by Lang 2016). The then EC President Jean-Claude Juncker (2016) assessed the impact of NS2 on EU gas markets as “beyond the legal,” which could have furthered Russia’s energy “dominance to the detriment of competitors and consumers” (Juncker quoted by Lang 2016). EC Vice-President Maroš Šefčovič (2015, 2016) also expressed a negative attitude towards the NS2 project, stating that the pipeline contradicts the core principles of the EU Energy Security Strategy of diversifying energy sources, suppliers and routes (Šefčovič quoted by EC 2016) and could undermine the energy security of Eastern Europe (Šefčovič quoted by Waldoch & Krukowska 2015).

The Western member states, being the older and economically stronger EU members, have close personal ties with the EU’s key decision-makers. The interests of the Western group of member states in gas imports from Russia largely coincided, which could stimulate their joint lobbying for gas cooperation with Russia. This argument is echoed in some secondary research. One example is the statement by then Russian Energy Minister Sergey Shmatko in 2009, that some of Russia’s traditional partners were ready to support the Russian proposal on the development of a new global energy security mechanism. Even if the minister did not name specific countries, it was obvious that by “traditional partners” was meant Germany and Italy, the closest to the energy policy interests of Russia (Zygar & Grib 2009). Another example is a study by Andrey Vavilov et al. (2015), which argued that Gazprom’s interests within the EU’s political institutions were often lobbied for by the older EU core members – Germany, France, Italy, Belgium, the Netherlands because of their supposed political and economic benefits from gas trade with Russia. The authors noted the strong political support for the NS project from national authorities of the Western member states (Vavilov et al. 2015: 184, 212-213), which can be explained by their particularly strong voice within the EU in this issue area. These arguments suggest an important advocacy role, played by Berlin in the past in favour of energy cooperation with Russia.

The above claim about Germany’s role in promoting energy cooperation with Russia at the EU level was partially refuted by the interviews conducted for this study. Piebalgs (2021) rates Germany as a “perfect EU member” that clearly distinguishes between its own rights and responsibilities and the EU’s regulatory role. He argues that Germany did not lobby for Gazprom at the EU level and that Gazprom was strong enough to stand for its own interests. Piebalgs came to this conclusion based on his experience as the EU Commissioner for Energy (Andris Piebalgs. Former EU Energy Commissioner. Author’s interview. March 24, 2021). This argument that Germany did not in any way lobby for Russian gas at the EU level was supported by another 16 respondents interviewed for this study, although six of the 31 interviewed were of a different opinion.

The Brussels office of Gazprom was opened only in December 2013 (*Gazprom* 2013), before that the Russian gas giant promoted its gas business at the EU level through high-level communications. A German fossil fuel industry representative (2021) interviewed for this study is confident that Gazprom had good connections at the EC level and was able to advance its own interests through its two lobbying companies in Brussels (German fossil fuel industry representative. Author's interview. January 25, 2021). The Association of Accredited Public Policy Advocates to the European Union (AALEP) highlighted Gazprom's main means of lobbying at the EU level: professional trade and business associations, professional advice tools, representative office, and in-house lobbying (*AALEP* 2017).

From a political point of view, policymakers in Germany and the EU tend to share the same energy security motives. Imports of Russian gas to Germany were intended not only for German consumers, but also to ensure the energy security of other EU member states. There was thus a partial coincidence of interests of Germany and the EU as an institutional body with regard to Russian gas supplies. This partial coincidence of interests could be the reason for the EU's support for Russian gas supplies. Although the NS2 project ran counter to the EU's diversification policy aimed at reducing dependence on Russian energy resources, it could be seen as a diversification of supply routes in accordance with the EU regulation on the security of gas supplies (Regulation (EU) 2017/1938).

A study by the Corporate Europe Observatory (2017) reveals EC support for the European gas industry sector. According to the study, gas industry lobbyists received strong political support at the institutional level. The study notes more than 460 meetings held by the EU gas industry with the two climate and energy policy commissioners and their cabinets between November 2014 and August 2017. Of these meetings, only high-level meetings were disclosed; the Commission declined to disclose a list of all meetings. Even when disclosing meetings, protocols usually do not reflect the topics discussed in detail (*Corporate Europe Observatory* 2017: 4-7). This makes it difficult to precisely assess NS2 lobbying during these meetings.

Eurogas and *Gas Infrastructure Europe* are considered the most influential gas industry lobby groups in Europe. Following Russia's 2022 invasion of Ukraine, Gas Infrastructure Europe continued to list Gazprom's German subsidiaries Gazprom Germania and Astora among its members (*Gas Infrastructure Europe* n.d.), allowing business interests to dominate. Eurogas, representing over sixty major European companies (*Eurogas* n.d.), has a significant impact on European energy policy. The organisation holds seats on expert panels advising the Commission and has about 10 meetings a year with EU Commission officials. The longstanding close ties between Eurogas and senior Russian

officials and gas companies were attributed by Global Witness to the interdependence between European gas companies and Russian gas industry, driving them towards the shared goal of increasing the role of gas in Europe (*Global Witness* 2022). Major German gas companies are members of Eurogas and Gas Infrastructure Europe, which gives the impression that their lobbying activities for Russian gas at the EU level could be largely delegated to these organisations.

According to some studies, German companies are among the strongest lobbyists influencing decision-makers in Brussels (e.g. *The Local* 2014, Katzemich 2016, Reay 2020). Although this study disproved German lobbying for gas cooperation with Russia at the EU level, it did reveal that when EU policies impact the interests of the German private energy sector, the German government mainly stands behind the interests of its private energy companies (e.g. Katzemich & Cann 2020: 9, Thane Gustafson. Georgetown University. Author's interview. April 8, 2020, Andris Piebalgs. Former EU Energy Commissioner. Author's interview. March 24, 2021). Consequently, the question of German influence on EU decisions is still relevant.

Member State contributions form the bulk of the EU's income sources. Compared to other EU members, Germany pays the highest amount of money to support the Union. According to Statista, in 2019, Germany's contributions to the EU amounted to €25.82 billion, while France contributed €21.01 billion, Italy – €14.96 billion, the United Kingdom – €14.05 billion (*Statista* 2020). Germany's average annual contributions to the EU as of 2020 amounted to €31 billion. As proposed by the EC, Germany – the largest economy of the EU, was expected to contribute an average of €13 billion more per year from 2021 through 2027 (*Deutsche Welle* 2020). With its largest economy in the EU, Germany is also considered the most influential member. *Brexit* has reduced the counterweight of the United Kingdom, thereby enhancing German influence over the EU. This shift has contributed to the strengthening of Germany's bargaining power within the EU and its ability to advance its own interests (Aleksandr Sherstobitov. Political scientist. Author's interview. August 31, 2020). A survey conducted by Bruce Stokes et al. (2017) in nine European countries, with the exception of Germany, concluded that Germany has a great influence over EU decision-making. This view was most common in Greece, Spain and Italy (Stokes et al. 2017). The European politician interviewed for this study also supported the view of Germany's influence on EU decisions, while noting that this influence has increased since Chancellor Merkel came to power (European politician. Author's interview. March 3, 2021). Nina Katzemich and Vicky Cann (2020) attach an important role to BMWi and the Federal Foreign Office in coordinating the Government's approach to EU issues and highlight the role of BMWi in advancing the interests of German industry at the EU level (Katzemich & Cann 2020: 9-10).

Interviews for this study (conducted before the 2022 Russian invasion of Ukraine) produced varying results on the issue of influence within the EU. A German fossil fuel industry representative (2021) interviewed for this study emphasised the important role of the EU in German-Russian gas relations. The main decisions on German-Russian gas relations, believed the interviewee, were approved at the EU level, which somewhat limited Germany's influence on the course of events. At the same time, the interviewee argued that the most consistent and high-profile influence on the EU's position in relation to Russia was exerted by a group of Central and Eastern European countries, and in the case of the NS2 debate, the scale of this influence shifted the tone of the entire discussion (German fossil fuel industry representative. Author's interview. January 25, 2021). This argument was countered by Indra Overland (2020), a professor at the Norwegian Institute of International Affairs, who believes that Germany is independent enough to override the EU factor in its energy relations with external suppliers (Indra Overland. Norwegian Institute of International Affairs. Author's interview. April 27, 2020). Sherstobitov (2020) has a different opinion, considering that the EU does not have much influence over Germany, but influences the way Germany argues its decisions (Aleksandr Sherstobitov. Political scientist. Author's interview. August 31, 2020).

The Russian energy diplomat (2020) interviewed for this study considers that Germany's influence on EU decisions is underpinned by Germans holding relevant positions in EU institutions. At the same time, the diplomat believes that the EU's decision-making process is a complex one, and is not determined by Germany alone (Russian energy diplomat. Author's interview. June 8, 2020). Kopp (2020) considers Germany to be a crucial player in EU decision making based on its gross domestic product (GDP) and population size. Nonetheless, argues Kopp, the country's influence has always been the greatest when Germany acted in close coordination with France (Sandu-Daniel Kopp. BDEW. Author's interview. September 9, 2020). A good example of this is the EU's adoption of the German-French compromise of February 2019, which attributes the supervision of new offshore energy pipelines to the "territory and territorial sea of the member state where the first interconnection point is located" (*Deutsche Welle* 2019 (a)). By making it possible to transfer certain responsibilities from the EU to Germany, this compromise agreement allowed Germany to remain a key negotiator with Russia on the NS2 pipeline. Another example is the opposition to the Commission's full ownership unbundling requirements by a coalition of EU states led by Germany and France. The efforts undertaken by the EC to ensure full ownership unbundling did not coincide with the interests of large European energy entities with a vertically integrated structure, which led to their resistance to the new rules. This opposition, backed by the support of the governments of these energy companies, where Germany and France were the most visible adversaries, was quite successful. The pressure exerted on the Commission by opponents of the new unbundling principles led to some

concessions on the part of the former, which was reflected in certain changes to the original proposal (Saunders & Gray 2008).

Diesen (2020) argues that the influence between the EU and Germany is bilateral, depending on the issue area, and that the EU's influence on German-Russian gas relations made them more complicated (Glenn Diesen. HSE University. Author's interview. August 6, 2020). Kirsch (2020) pointed to the fact of competition for influence between the EU and Germany in major energy-related decisions. According to Kirsch, the EU's attempts to gain bargaining power over gas deals with Russia, particularly on the NS2 project, with coordination of decisive points, limited Germany's role in its external energy relations. However, the role played by the EU is not sufficient to make important energy decisions, argued Kirsch (Jörg Kirsch. BMWi. Author's interview. September 2, 2020). The argument of Rawi Abdelal (2020), a professor at Harvard Business School, is relevant here. Abdelal suggested that EU energy competence in terms of building pipelines and projecting gas supplies is lower than that of its member states. "The EU does not have a responsibility in a major way for the energy sector." Each EU member state bears more responsibility for its security of gas supply than the EU, which is responsible for the energy security of the entire Union. At the same time, Abdelal argued that many EU regulations complicated German-Russian energy relations, pointing to the fact that, despite its great influence on the EU, Germany could not always successfully promote its energy cooperation with Russia within the EU (Rawi Abdelal. Harvard Business School. Author's interview. May 7, 2020).

This study concludes an important regulatory role for the EU in German-Russian gas relations, which has grown in influence since 2009 as a result of a more liberalised and integrated internal energy market. It was this regulatory factor that fundamentally changed the energy business model between Germany and Russia. The chapter discussed the main legislative documents issued by the EU aimed at the energy trade of member states with Russia in order to advocate the interests of the EU. The study concludes that the EU was a major player in German-Russian gas relations in terms of policy formation. This regulatory role served the geopolitical and geoeconomic interests of the entire EU. EU support for liberalisation and unbundling increased the competitiveness of the European gas market and reduced Gazprom's market power, thereby strengthening the bargaining power of EU member states. The shift in market power, secured by new legal conditions in favour of the EU, discourages the use of energy trade for political leverage by large energy suppliers such as Russia.

7. THE UNITED STATES AND GERMAN-RUSSIAN GAS RELATIONS

The United States was the main actor opposing the NS2 pipeline throughout its construction. Strong US opposition to NS2 enhanced the politicisation of the debate on the project and delayed the construction of the pipeline. U.S. opposition to the NS2 project, as part of a political obstacle to strong gas relations between Germany and Russia, is one of the IVs in this study.

This chapter aims to help the reader understand the motives behind U.S. opposition to the NS2 project and discusses the extent to which this opposition affected gas relations between Germany and Russia. The chapter begins by explaining the balance of power between the United States and Russia in the international system, highlighting the geopolitical motives that led the United States to influence German-Russian gas relations. It then discusses U.S. economic incentives to oppose the NS2 project. U.S. shale gas is increasingly a competitor to Russian gas in the global gas market. The chapter presents a comparative analysis of the supply of U.S. LNG and Russian pipeline gas to Europe, in particular to Germany, and concludes by discussing the United States' impact on the NS2 project.

7.1. Germany: Sandwiched in the Middle of the United States-Russia Power Balance

In U.S.-Russian relations, military-strategic considerations prevail, which has prevented the development of a constructive basis for commercial interests between them. Although energy plays a leading role in the economy and foreign policy directions of both the United States and Russia, both are energy superpowers. This means that energy plays a secondary role in relations between these two states. Since the United States does not depend on Russia for energy supplies, its approach to Russia was determined by geopolitics, in contrast to the EU's (including Germany's) approach to Russia, which was geoeconomic (Obydenkova 2010: 330, Crawford & Dienstbier 2019: 37). This divergence in approaches to Russia between the United States and Germany led to their different perceptions of cooperation with Russia.

U.S. opposition to the energy links between its Western European allies and Russia was reflected not only in the case of the NS2. In the early twentieth century, the United States attempted to stop the import of Russian energy resources (at that time oil) to Europe, including Germany (Jonathan Stern.

OIES. Author's interview. April 24, 2020). This opposition was based on U.S. perception of Russia as a competitor, while the United States became the world's major oil supplier. In 1981, President Ronald Reagan expressed opposition to the Yamal pipeline, designed to transport gas from Western Siberia (Soviet Russia) to Western Europe. The project was approved by West Germany in July 1980 which then agreed in principle to lend the USSR \$4.75 billion against the project's total cost of \$10 billion to \$15 billion (Ball 1982). In return, the United States offered West Germany greater access to other energy sources, including American coal (Ball 1982, Högselius 2013: 185, Vicari 2016). This U.S. opposition was its concern that an influx of foreign exchange from energy sales would help the Kremlin in its efforts to modernise its military. The Reagan administration feared that Europe's growing gas dependence on the USSR would weaken Europe's political will and force it to yield to political pressure (Perovic 2009: 1-2, Vicari 2016) under the threat of a gas cut. In order to prevent the Yamal pipeline, the United States, led by President Reagan declared an embargo on American-licensed technology, including compressors. This U.S. resistance took place at a time of heightened tensions between the United States and the USSR caused by Soviet actions in Eastern Europe, including the imposition of martial law in Poland in 1981 and Soviet invasion of Afghanistan (Högselius 2013: 184, Vicari 2016, Tsafos 2018: 1, Gustafson 2020: 165). Then, as nowadays, in the context of the Ukrainian crises of 2014 and 2022, Washington accused Moscow of an aggressive foreign policy and regarded the energy project as a threat to the security of its Western European allies. But unlike the latter case, U.S. resistance could not prevent the implementation of the Yamal project. It should be noted that previously, since the first energy cooperation with the USSR up to the negotiations on the Yamal project that took place during the Reagan presidency, the United States took a largely positive stance in respect to energy cooperation between its European allies and the USSR. In particular, negotiations with the United States on West Germany's energy deals concluded by Ruhrgas were always given a "green light" by Washington (Högselius 2013: 184-185, Gustafson 2020: 164-165). Following Reagan-era interventions, resistance to Soviet (later Russian) gas exports to Europe continued under subsequent U.S. administrations. Strong opposition from the United States, led by Bill Clinton, was also observed with respect to the Blue Stream project, a direct gas pipeline launched in the late 1990s between Russia and Türkiye, bypassing third countries. This opposition was based on the Clinton administration's concern over Türkiye's dependence on Russian gas (Kandiyoti 2015: 44-50).

U.S.-Russian relations have a strong influence on the state of global politics and can have unforeseen consequences for other actors. As two great powers, their strategic interests contradict each other in many respects. Both states seek to strengthen their economic and political positions in the global arena. The roots of U.S. influence on German-Russian relations extend back to the years of rivalry

between the United States and the USSR during the Cold War. It was the competition for influence over Europe that played a central role in the rivalry between the United States and the USSR for global domination during the Cold War (Morgenthau 1956: 380-382). Post-war divided Germany, with its strategic location and great potential, became a center of ambition for both the United States and the USSR. Berlin was “the most probable flashpoint for a showdown” between these two superpowers (Kefferpütz & Stern 2021: 3). As described in Chapter 3, West Germany and the United States were closely connected during the division of Germany and followed almost the same principles, which affected their future relations. West Germany’s support for the United States was largely limited to economic factors (Thiel 1988: 55-58), and the United States in turn used its military security umbrella over Western Europe to leverage West Germany’s security dependence (Thiel 1988: 55-56, Sperling 2010: 54-63), which turned West Germany into a supportive U.S. geopolitical ally¹⁹ (Kefferpütz & Stern 2021: 3).

Western Europe’s security dependence on the United States was weakened by the elimination of the threat of global conflict that arose as a result of the collapse of the Soviet Bloc and the end of the Cold War, and became a catalyst for deeper European integration in foreign and security policies (Arbatova 2021: 18). Geopolitical changes in the post-Cold War era brought the reunified Germany closer politically and ideologically to the United States, with the U.S. security umbrella keeping it under relative American influence. Commitment to Western values and transatlantic solidarity continued to be important tenets of the reunified Germany’s foreign policy. The positions of the reunified Germany and the United States have almost been consistent with each other on many security issues, economic relations and the world architecture (Igbal Guliyev. MGIMO. Author’s interview. May 7, 2020).

Since the end of the Cold War in 1989, relations between the United States and Russia have continued to be accompanied by tensions and influenced by their geopolitical interests. But the collapse of the USSR turned the bipolar world into a unipolar one in favour of the United States. This transformation marked a turning point in relations between the United States and Russia, resulting in some relaxation of tensions between the two. In the 1990s, the United States became a major foreign investor in Russia, encouraging its companies to invest in Russia and providing them with government support and incentives. Among the largest global energy companies to sign production-sharing agreements with Russia were ExxonMobil, Chevron, Shell, ConocoPhillips and others, which invested billions

¹⁹ James Sperling (2010) assesses (West) Germany’s role as the most important U.S. ally during the Cold War as unrivaled. To prove this, the author refers to a 1990 U.S. Department of Defense Report, in which it is stated that during the Cold War, 50 percent of NATO ground combat forces, 60 percent of the main battle tanks, 30 percent of the combat aircraft, and 100 percent of the naval forces in the Baltic Sea were supplied by (West) Germany (Sperling 2010: 54).

of dollars into the Russian energy sector. The Bill Clinton administration cooperated with the Boris Yeltsin government on Russia's transition to the market economy (*U.S. Department of State Archive 2001-2009*, Svyatets 2016: 33). Large U.S. investments in Russia were attributed to the high economic potential for return on investment. The mutually beneficial economic cooperation between the United States and Russia eased geopolitical tension between them (Svyatets 2016: 33), raising hopes for a genuine improvement in relations.

But the situation changed with the time. Political disagreements between the United States and Russia over issues like NATO expansion, the Iraq war, U.S. missile defence in Europe, and the Russia-Georgia War returned their relationship to one dominated by mistrust and hostility as was the case during the Cold War. U.S.-Russian relations were also accompanied by contradictions in the commercial sphere. The centralisation of power in Russia led to the centralisation of key assets in critical sectors to ensure greater state control over industries (*St. Petersburg State University 2020*). Russia established restrictions for foreign investors by the *Federal Law on the Procedures for Foreign Investments in the Business Entities of Strategic Importance for Russian National Defence and State Security* (№ 57-ФЗ, 2008). Increased state control over the Russian energy sector, regarded as a sector of strategic importance, led to a decision by the Russian government to revise or even cancel some energy transactions signed in the 1990s (Goldman 2010: 86, Svyatets 2016: 34-40). This decision, according to the Federal State Statistics Service of the Russian Federation, resulted in a drop in U.S. investments, made in the energy sector of Russia from \$400,000 in 2005 to only \$16,000 in 2009 (Svyatets 2016: 38). This shift led to a return of the predominance of geopolitical considerations over economic interests in the two countries' commercial relations.

Relations between the United States and Russia changed in a positive direction in 2009, with the new politics towards Russia started by Barack Obama administration during Dmitry Medvedev's presidency in Russia. Some success was achieved, including the signing of the *New Strategic Arms Reduction Treaty* (*U.S. Department of State n.d.*) and the expansion of cooperation on Iran and Afghanistan (Pifer 2015: 111). In the commercial sphere, the reset in relations between the United States and Russia served to reduce political risks for American businesses operating in Russia (*EurActiv 2011*). U.S. companies began to again invest in Russian energy projects. However, Western companies were allowed to invest primarily in difficult climatic regions, such as the Arctic and Eastern Siberia, which required Western expertise (Svyatets 2016: 34). These regions are characterised by a harsh climate and technical difficulties in accessing resources, which adds additional value to the cost of commercial activities (Svyatets 2016: 41). However, large investments made in these challenging regions were considered profitable. For instance, Exxon called the Arctic

Kara Sea block, in which it had invested, “among the most promising and least explored offshore areas globally, with high potential for liquids and gas” (Exxon quoted by *EurActiv* 2011, Exxon quoted by Korsunskaya & Reddall 2011). But the positive shift in relations between the United States and Russia was not tangible enough, and soon, in 2011, progress in the relationship slowed down (Pifer 2015: 111) amid geopolitical controversies between the two states.

Although the United States and Russia, apart from nuclear, pose no real threat to each other and have no irreconcilable national interests, their relationship is troubled (Baklitskiy 2021). These two powers have taken rival positions on many foreign policy positions and formed opposing blocs. In the Independent Task Force Report (2006) of the Council on Foreign Relations, U.S.-Russian relations were described as follows: “Russia and the United States have only very rarely acted as partners in any meaningful sense of the word. When they have cooperated, it has been because their interests on this or that narrow issue were sufficiently similar to allow them to work together. But cumulative effects – an accretion of trust, the habit of joint action, a spillover to other issues – have been few.” (*Council on Foreign Relations* 2006: 29).

In addition to issues of rivalry in Eurasia and security relations with other states, different conceptions of governance and ideological differences continue to complicate relations between the two states. The deteriorating state of Russian democracy has been one of the main concerns expressed by the United States about Russia (e.g. *U.S. Government Publishing Office* 2018, *The White House* 2021), which is mostly directed at Putin’s government. Putin refuted this criticism and suggested first critically assessing the state of democracy in the United States, and only then move on to a discussion of Russian problems (Putin quoted by *Lenta Ru* 2005). The growing tensions over competing political world views put the two states on opposite sides of each other.

From a realist perspective, the United States can be said to view the world from a balance of power perspective (Szabo 2015: 111-113). Diesen (2018) assesses the United States as the “principal balancer” of Russian influence and believes that the strategic interests of the United States are diametrically opposed to the economic linkage between the major Eurasian powers – China and Russia. In his explanation of the U.S. attitude towards the major Eurasian powers, Diesen referred to realist theories, which suggest that the emergence of strong rivals can threaten the unipolar hegemon and that attempts to maintain the unipolar world order would only increase the resistance of growing forces. The author supports the arguments put forward earlier by Brzezinski (1997), Van Evera (2006), Friedberg (2011) and Posen (2014), suggesting that the major geostrategic goal of the United States is to promote political divisions and balance potential rivals in Eurasia (Diesen 2018: 30-44).

Luis Simón et al. (2021) also refer to a realist explanation of U.S. foreign policy. The authors suggest that as far as the geopolitical interests of the United States are concerned, maintaining a balance of power between major European states is important in order not to allow any state to exert too much influence (Simón et al. 2021: 97-99). European states enjoy different power capabilities, which affect their behaviour in world politics. There is a big difference between U.S. influence over Germany now than the situation 20 years ago. This difference stems from the growing economic and political power of Germany and the diminishing power of the United States. The changing power balance between the United States and Germany, along with their differing reliance on imports, has led to their increasingly disparate geopolitical views and different perceptions of third-party threats. For example, the struggle for global power makes China a geopolitical threat to the United States, while for Germany China is more of a commercial partner rather than a geopolitical threat (Kefferpütz & Stern 2021: 1-3).

On the example of the NS2 project, Diesen (2021) observed the weakening of the American-led unity of the West, which he attributed to differences in the attitudes of Western Europe and the United States towards Russia. The author argued that during bipolarity, when the West needed U.S. protection, the attitudes of Western Europe and the United States towards (Soviet) Russia were accompanied by ideological unity and shared interests. In the era of unipolarity, Western states sought collective hegemony with the United States, while continuing to view Moscow as their main adversary. But in the era of multipolarity, the declining dependence of Western European states on the United States, coupled with the divergence of their political goals from the latter, according to Diesen, became increasingly visible in their diverse foreign policy interests (Diesen 2021 (c)). Although excessive dependence on the United States is not in the interests of the EU (Glenn Diesen. HSE University. Author's interview. August 6, 2020), both are closely linked by economic and security ties, which preclude the emergence of an anti-American alliance in Europe (Brown & Ainley 2005: 243-244).

Yet, in the rivalry between the United States and Russia, the former can influence the behaviour of the EU in relations to the latter. This influence comes from the relative security dependence of the EU on the United States and the ideological affinity between them and is reflected in Brussels' tone towards Russia. The Russian energy diplomat (2020) interviewed for this study believes that the United States exerts pressure on Germany and the EU as an institutional body in their relations with Russia, and also influences expressions of opinion by other EU members in its own favour (Russian energy diplomat. Author's interview. June 8, 2020). Russian political scientist Dmitri Trenin (2018) shares a similar view, arguing that the tensions in the relations between the United States and Russia

have informally involved the European members of NATO in the confrontation, particularly in the spheres of intelligence, economics, military and information. The author links this involvement to the sense of solidarity or dependence of these members on their chief ally. At the same time, Trenin assesses Russia's attitude to the other NATO members, including Germany to be quite different than it is towards the United States. This difference is explained by Trenin with the argument that Russia views the United States as its "chief foe", while NATO's European members are seen as "semi-combatants rather than full-on adversaries" (Trenin 2018: 4).

The U.S. presence in Europe has increased since the 2014 Ukrainian crisis (*PBS News Hour* 2022) due to concerns about the security of its NATO allies. Yet, after the 2014 Ukrainian crisis, U.S. opposition to Russia differed from that of its Western European allies, including Germany, in a tougher stance. This stemmed from the stronger position of the United States in the international system compared to its European allies and the latter's dependence on Russian energy resources. It can be argued that each time when U.S.-Russian relations escalated, Germany's dependence on Russian energy resources became a point of dispute between the United States and Germany. But the Ukrainian crisis of 2022 closed the divergence in political attitudes towards Russia between the United States and Germany. The crisis demonstrated the importance of solidarity between the United States and the EU in countering external threats and underlined the important role of the former in this alliance.

7.2. U.S. Energy Independence and its Commercial Implications

Shale gas boom gradually returned the United States to a situation of energy independence, hence diminishing the importance of energy imports. This situation, however, deepened the differences between the United States and Europe, including Germany, in relation to dependence on gas imports. U.S. success in shale gas production led to the replacement of Russia by the United States as the largest natural gas producer in the world in 2009 and this trend has continued since then (*BP* 2021). According to U.S. Information Administration, from 2015 to 2020, gas production in the United States grew about twice as fast (4.3 percent per annum on average) as consumption (2.3 percent per annum) (Kemp 2021). The availability of secure and competitive energy at home has given the United States considerable leeway in foreign policy as it can now better pursue political goals through economic means and leverage its increased "statecraft" (Westphal 2018: 14). Shale gas has completely changed the status of the United States from a net importer to a net exporter of gas. This

considerably impacted the global gas market, causing increased competition and falling prices (Westphal 2018: 13, Ilya Zaslavskiy. Free Russia Foundation. Author’s interview. April 18, 2020). Table 7 shows total U.S. LNG exports between 2010 and 2020, including re-exports.

Table 7. Total U.S. LNG exports (including re-exports), 2010-2020.

Source: BP 2021.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Export volume (bcm)	1.5	1.8	0.8	0.2	0.4	0.7	4.0	17.1	28.6	47.4	61.4

The increase in LNG exports (including re-exports) over ten years from 1.5 bcm to 61.4 bcm indicates a high profitability of gas for the U.S. economy. Eugene Gholz (2019) argues that the overall economic performance of the United States has security implications because, by funding the national defence budget, the economic power of the country is ultimately converted into military power (Gholz 2019: 45). This can be attributed to the large role of military power in U.S. foreign policy. Energy dominance with a strong foreign policy component has become the stated goal of the United States. The Trump administration intended to achieve the status of a “global energy superpower” for the United States (Westphal 2018: 14, Guliyev 2020: 1-5). The first U.S. LNG exports arrived in Europe in 2016 (EC 2022 (c)). According to the EC, between July 2018 and November 2019, European LNG imports from the United States increased by almost 600 percent (European External Action Service 2019). In 2021, U.S. LNG exports to the EU recorded the highest volume, reaching more than 22 bcm, with an estimated value of €12 billion (EC 2022 (c)). Figure 9 illustrates a comparison of the European gas imports via the pipeline and in the form of LNG between 2010 and 2020.

As can be seen from Figure 9, since 2018, LNG imports to Europe have increased significantly, while pipeline gas imports have slightly decreased. The increase in LNG imports to Europe is attributed to the strengthening of the U.S. role as a gas exporter. The United States, as argued by Farid Guliyev (2020), pushed European states to purchase American gas as a “putative way” to reduce Europe’s gas dependence on Russia, and also increased LNG exports to Asian markets (Guliyev 2020: 1). André Wolf (2018) considers the search for export markets for excess domestic gas production an important part of the U.S. energy strategy. In this regard, the weakening of Russia as the main competitor in the international gas market has become an important political consideration (Wolf 2018: 7).

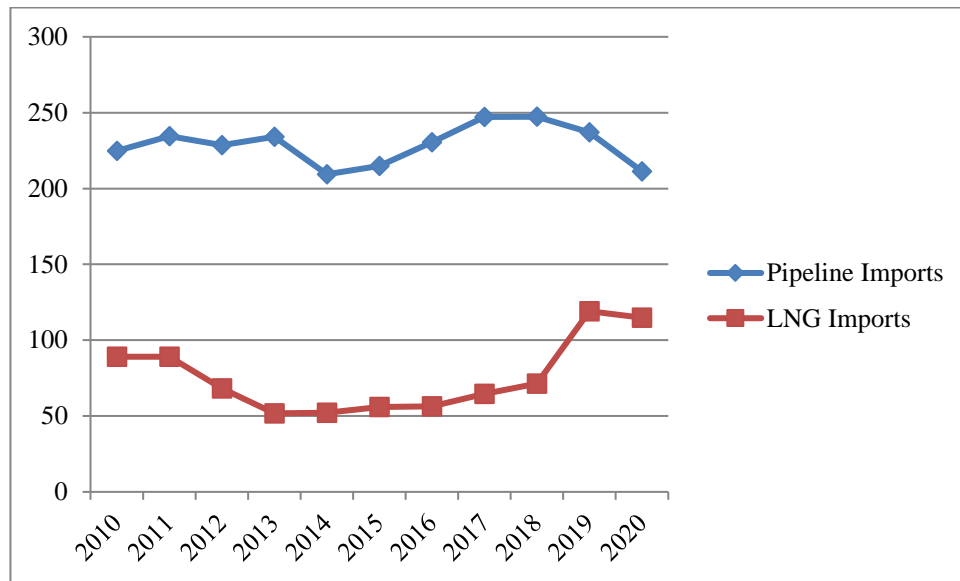


Figure 9. Comparison of total LNG imports and pipeline gas imports to Europe, 2010-2020.

Prepared by the author based on BP 2021 data.

The energy wealth of the United States further deepened the divergence between its energy policy and that of Germany (Westphal 2021: 3), which in turn deepened the divergence in their approaches to Russia. The “America First” strategy of the Trump administration, which directly contradicted the interests of the EU (Buras & Janning 2018: 2), was based on national interests, transactional trade, and foreign policy that relied on unilateralism rather than multilateral cooperation (Westphal 2018: 14, Bilal & Imran 2019: 4). With the adoption of the *European Energy Security and Diversification Act* of 2019 (H.R.1453), the United States re-emphasised its political and economic interests in Europe. The document emphasises the U.S. “economic and national security interests in assisting European countries achieve energy security through diversification of their energy sources and supply routes” with a special emphasis on reducing the energy dependence on Russia, which could exploit this dependence for “undue political influence” (U.S. Congress 2019 (a)). The focus of this Act is the competitiveness and diversification of supply sources in the European energy market, as well as the involvement of U.S. public and private investments in European energy infrastructure projects, and the promotion of energy exports from the United States.

Gustafson (2020) assessed the possibility of replacing European pipeline gas imports with LNG (not necessarily U.S. LNG) as “commercial suicide” for Russia (Thane Gustafson. Georgetown University. Author’s interview. April 8, 2020). In contrast, the Russian energy diplomat (2020) interviewed for this research project did not view U.S. LNG as a competitor to Gazprom’s pipeline

gas in the European market. The interviewee came to this conclusion because LNG is by default more expensive than piped gas, primarily because of liquefaction and regasification costs. The second reason – the diplomat believed that it was practically impossible to bring LNG to Europe in the amounts comparable to Russian piped gas supplies: “Independent calculations show, there won’t be enough LNG tankers in the world to replace Russian gas supplies.” (Russian energy diplomat. Author’s interview. June 8, 2020).

The assessment of the role of U.S. LNG in the European market was mainly based on price considerations. In their research on the NS2 project, Hubertus Bardt and Thilo Schaefer (2018) compared the structural cost differences between gas prices in the United States, Europe and Japan and came to the conclusion that the United States, strongly characterised by rapidly growing unconventional production has had by far the lowest gas price level for years. The authors argued that the large difference in production costs justified significant gas exports from the United States to Europe (Bardt & Schaefer 2018: 3-4). Cleutinx (2020) believed that the success of U.S. LNG in the European market should have been only related to its competitiveness in a global market and that the choice of the EU with regard to Russian gas was clearly related to its cheapness compared to U.S. LNG (Christian Cleutinx. International expert on energy security. Author’s interview. May 19, 2020). Stern (2020) shared a similar view, considering LNG from most sources to be less competitive than Russian pipeline gas (Jonathan Stern. OIES. Author’s interview. April 24, 2020). A study by Siyavush Azakov (2018) and Rystad Energy’s comparative analysis (2020) of Russian pipeline gas and U.S. LNG also favoured the former due to its cost-effectiveness over the latter when delivered to Europe (Azakov 2018: 3, *Rystad Energy* 2020).

Cost considerations were accompanied by considerations of security of supply. Considering LNG as a significant import option, Westphal (2018) nonetheless believes that in a potentially tight market environment, it harbors short-term bottleneck and price risks and entails high volatility (Westphal 2018: 13). In an interview for this research project, Stern (2020) shared his views on the possible unreliability of U.S. LNG supplies to Europe. As evidence, he cited the “disappearance” of LNG from European markets at a time of high demand for LNG from Asian buyers. Stern explained this context by the difference between pipeline gas imports and LNG imports, where in the latter case the importer who pays the highest price will receive the cargos (Jonathan Stern. OIES. Author’s interview. April 24, 2020). Wolf (2018) drew attention to the higher technical risks associated with tanker shipments compared to pipeline transport. As evidence of his reasoning, Wolf cited “chronic underutilization of the existing LNG terminals in Europe” (Wolf 2018: 7). On the other hand, LNG import capacities have been an important asset for the EU not only to cover peaks in demand, but also to maintain

competitive pressure on Gazprom (Zachmann 2018: 10, Ilya Zaslavskiy. Free Russia Foundation. Author's interview. April 18, 2020). LNG increases the competitiveness of the market, thereby providing an advantageous position for Germany in its negotiations with pipeline gas exporters. It was largely the increased prospects for LNG imports that gave Germany the trump card in its decision to declare off Russian gas imports following the Russian invasion of Ukraine in 2022.

The Ukrainian crisis of 2022 led to the exclusion of Russia from the role of the main European energy supplier, which opened up prospects for more LNG imports to Europe, including from the United States. Germany decided to build two LNG terminals in Brunsbüttel and Wilhelmshaven as part of its energy security efforts (Murphy et al. 2022, Wettengel 2022 (b)), with the involvement of Uniper (Murphy et al. 2022). But the decision to build LNG terminals was not perceived unilaterally in the country. For example, DUH (2022) argued that given the long construction time, LNG terminals would further increase Germany's dependence on fossil gas and called for further accelerating the expansion of renewable energy to fill the energy supply gap. Constantin Zerger (2022) of DUH opined: "With the construction of LNG terminals we would only slide from crisis to crisis." (Zerger quoted by *DUH* 2022 (translated by the author)). Yet, Chancellor Scholz (2022) expressed optimism about LNG terminals and highlighted their possible transformation to handle climate-friendly gases: "An LNG terminal that receives gas today can also receive green hydrogen tomorrow." (Scholz quoted by Wettengel 2022 (b)). This statement points to a long-term energy partnership with today's LNG suppliers, perhaps beyond the fossil fuel era.

7.3. The Nord Stream 2 Project in the Context of U.S. Opposition

Throughout its construction, the NS2 project was a point of dispute between the United States and Germany. In light of the 2014 Ukrainian crisis, the United States signaled its strong opposition to the pipeline and used this argument as a political lever against the NS2 project to combine strategic foreign policy with economic interests (Wolf 2018: 7, Claus Bergschneider. Former Gazprom Germania Chief Representative. Author's interview. September 3, 2020, German fossil-fuel industry representative. Author's interview. January 25, 2021). The U.S. government under Donald Trump made several attempts to obstruct Russian energy pipelines, such as the *Energy Security Cooperation with Allied Partners in Europe Act of 2019* (S.1830). This Act opposes the NS2 project, urges NATO states not to buy Russian gas and accelerates gas exports from the United States (*U.S. Congress* 2019 (b), Zengerle & Knolle 2019). This Act can be assessed as an important foreign policy tool in favour

of the economic and political interests of the United States. However, Piebalgs (2021) considered the EU market as not being crucial for U.S. LNG producers, which led him to believe that U.S. opposition to the NS2 project mainly had political considerations rather than economic ones (Andris Piebalgs. Former EU Energy Commissioner. Author's interview. March 24, 2021).

With the signing by Trump of the *Protecting Europe's Energy Security Act* (PEESA) in December 2019, sanctions were imposed on the ship-owning companies involved in laying the NS2 pipeline at depths below 30 metres. To strengthen the legal framework for these sanctions, in July 2020, the U.S. Department of State issued new guidelines stating that the *Countering America's Adversaries Through Sanctions Act* (CAATSA) (H.R.3364) (U.S. Congress 2017) would apply to NS2, and in January 2021, PEESA was amended with broader sanction definitions (U.S. Department of State 2021, Russell 2021: 5-6). "We are trying to inform companies of the risk and urge them to pull out before it's too late," stated a source in the U.S. government led by Trump (Gardner & Psaledakis 2021 (a)). The imposed sanctions affected a large number of European companies. According to a U.S. State Department report, [as of February 2021], at least 18 companies refused to participate in NS2 (Deutsche Welle 2021 (b)). This effect was commented on by Ned Price (2021), a spokesman for the U.S. Department of State: "This shows that the legislative goals and our actions have been successful." (Price quoted by Deutsche Welle 2021 (b)).

U.S. sanctions against NS2 initially provoked a sharp reaction from European politicians, including those who had previously opposed the project. As noted by Abdelal and Bros (2020), the secondary (also known as extraterritorial) sanctions became "the primary vehicle for signaling and even implementing a decoupling of American and European political objectives" (Abdelal & Bros 2020: 117). Considering the imposition of U.S. sanctions on NS2 "entirely unacceptable extraterritorial interference", Peters (2020) saw as a turning point in the European stance on this issue the speech by the U.S. Energy Secretary Dan Brouillette at the Munich Security Conference in February 2020, when Brouillette stated that the United States had "thwarted" the NS2 pipeline (Peters 2020: 10-11). Since the NS2 project was a deliberate choice between the two economies, U.S. interference in this issue was considered illegal under international trade law. The Blocking Statute of the EC (Council Regulation (EC) No 2271/96), designed to protect EU operators and strengthen European strategic autonomy, states: "The European Union does not recognise the extra-territorial application of laws adopted by third countries and considers such effects to be contrary to international law." With this Blocking Statute, the EU seeks to protect the economic and financial interests of its own operators from extraterritorial impact (EC 2021 (b)). "The EU Commission emphatically rejects sanctions

against European companies that engage in projects in line with the law,” stated EC President Ursula von der Leyen (Von der Leyen quoted by *Radio Free Europe/Radio Liberty* 2019).

The German Federal Government voiced its opposition against the extraterritorial sanctions. The then Finance Minister Olaf Scholz (2019) called the sanctions “a severe intervention in German and European internal affairs” (Scholz quoted by *Radio Free Europe/Radio Liberty* 2019). “We regard [sanctions against German companies] as contrary to international law, plain and simple. The Americans cannot fine German companies for doing business in another country,” stated the then Federal Minister for Economic Affairs and Energy Brigitte Zypries (Zypries quoted by *GPIL* 2020). Strongly opposing extraterritorial sanctions, then Foreign Affairs Minister Heiko Maas (2020) called them disrespectful to the right and sovereignty of Europe to decide independently where and how to get energy (*German Federal Foreign Office* 2020). But *German Practice in International Law (GPIL)* was less critical of the secondary U.S. sanctions: “U.S. secondary sanctions may have serious economic and political effects in and for other States but they do not amount to an exercise of extraterritorial jurisdiction. Legislation having extraterritorial effects is not the same as extraterritorial legislation. ... While secondary sanctions may have serious negative effects in and for Germany and thus may be considered an unfriendly act, they are not illegal under international law.” (*GPIL* 2020).

In the press-conference held in Moscow on the 11th of January 2020, Chancellor Merkel once again called NS2 as an economic project and considered the extraterritorial sanctions incorrect. Merkel declared Germany’s intention to continue to support NS2, despite the controversial view of the project with the United States, Germany’s main ally (*Die Bundeskanzlerin* 2020 (a), *President of Russia* 2020). Since the private German companies involved in the NS2 project are the main drivers of the country’s energy sector, the government’s support for the project was mainly driven by its support for the German economy and the associated geoeconomic benefits.

The sanctions against the companies involved in the construction of NS2 led to a temporary halt in building the pipeline. The Kremlin, assessing the U.S. pressure on NS2 as “unlawful” (Gardner & Psalidakis 2021 (b)), expressed its large financial support for the project. Putin stated: “...we will certainly be able to complete it [construction] on our own without inviting foreign partners. The timeframe is the only question that emerges in this connection.” (Putin quoted by *President of Russia* 2020).

The United States employed various pressure tools to prevent the construction of NS2. In particular, the degree of intervention by the Trump administration set it apart from previous administrations that

opposed European energy deals with Russia. In addition to imposing sanctions on companies involved in the construction of the NS2 pipeline, the Trump administration was considering tariffs on imported cars, citing national security concerns, sending a clear signal to the German government about possible retaliation from the United States in case of further support for the NS2 project. According to the Ifo Institute for Economic Research in Munich, if introduced, a 25 percent tariffs could have cut German car exports to the United States in half (*Handelsblatt* 2019).

Interviews for this study (conducted before the 2022 Russian invasion of Ukraine) did not provide arguments in favour of U.S. sanctions against companies involved in the construction of the NS2 pipeline. Abdelal (2020) considered it “absurd” the idea that the United States should be in charge of EU policy, German policy, or should be in charge of individual European firms pursuing their own commercial interests (Rawi Abdelal. Harvard Business School. Author’s interview. May 7, 2020). Westphal (2020) viewed U.S. interference in Germany’s external energy deals as “kind of limiting the EU’s and Germany’s sovereignty” (Kirsten Westphal. SWP. Author’s interview. June 17, 2020).

Diesen (2020) believed that the United States attempted to use Germany’s security dependence as a leverage to promote its own LNG instead of Russian gas (Glenn Diesen. HSE University. Author’s interview. August 6, 2020). This was reflected in Trump’s belief that the money Germany saved on its own defence was used to support German exports, giving Germany a trade advantage at the expense of the United States: “Germany is just paying just a little bit over 1 percent [of GDP on NATO defence contributions] whereas the United States is paying 4.2 percent of a much larger GDP. So I think that’s inappropriate.... We are supposed to be guarding against Russia.... We are protecting Germany, we are protecting France, we are protecting all of these countries and then numerous of the countries go out and make a pipeline deal with Russia where they are paying billions of dollars into the coffers of Russia. I think that is very inappropriate.” (Trump quoted by MacAskill 2018). These statements by Trump were countered by Merkel (2018), who emphasised that Germany pursues “independent policies” and makes “independent decisions” (Merkel quoted by MacAskill 2018).

Official statements reflected some chill in relations between the German and U.S. governments, during the administrations of Angela Merkel and Donald Trump caused by their different approaches to the NS2 project. The interview (conducted before the 2022 Russian invasion of Ukraine) results for this study also show that U.S. attempts to impede the NS2 project, in particular its policy of sanctions against participants in NS2, temporarily affected relations between the United States and Germany. For example, Stern (2020) believed that with its persistent attempts to replace Russian gas imports with American LNG, the Trump administration managed to “annoy” the German

government, which had a negative impact on the United States-Germany relations (Jonathan Stern. OIES. Author's interview. April 24, 2020). Jeffrey Mankoff (2020) of the Center for Strategic and International Studies (CSIS) opined that the United States always looms in the background of German-Russian relations; by strongly opposing NS2, the United States negatively affected its own relations with Germany (Jeffrey Mankoff. CSIS. April 9, 2020). Overland (2020) believed that during the period of intense U.S. efforts to thwart the NS2 project, the Trump administration reduced U.S. credibility in Germany (Indra Overland. Norwegian Institute of International Affairs. Author's interview. April 27, 2020). Abdelal's (2020) arguments were more expansive, suggesting that attempts by the United States to undermine German-Russian commercial relations were paradoxically strengthening them (Rawi Abdelal. Harvard Business School. Author's interview. May 7, 2020).

In an interview for this study, Szabo (2020) shared the views of several German diplomats who linked the temporary distance between the United States and Germany to changes in U.S. domestic politics. Referring to future presidential elections [following Trump's term], Szabo believed there would be a re-consolidation of relations between the United States and Germany, which he attributed to the importance of the United States in European defence policy (Stephen Szabo. Political scientist. Author's interview. July 1, 2020). Referring to Trump's politics, Guliyev (2020) also linked the political divergence between the German political elite and Washington in terms of their approaches to Russia with the change of presidential power in the United States in 2017 (Iqbal Guliyev. MGIMO. Author's interview. May 7, 2020). A similar opinion was shared by six other respondents interviewed for this study, who believed that U.S. opposition to Germany's gas relations with Russia was largely influenced by the Trump presidency. Sherstobitov (2020) expressed a different opinion. He believes that the position of the American establishment regarding German-Russian relations is conditioned by the electoral support behind certain initiatives. Given the fact that Democrats are traditionally quite negative on Russia, Sherstobitov considered the new Joe Biden presidency as not very promising for support for German-Russian gas cooperation (Aleksandr Sherstobitov. Political scientist. Author's interview. August 31, 2020). This assumption was evidenced by the Biden administration's statement on NS2 as a "bad deal for Europe" (*EurActiv* 2021, *Euronews* 2021).

Westphal (2018) viewed the situation that Germany faced in respect of NS2 as a dilemma. Referring to the deepening of the existing dividing lines within the EU, she saw a threat to Germany and the EU caused by the rivalry between the United States and Russia (Westphal 2018: 14). A study conducted by Kirsten Westphal, Maria Pastukhova and Jacopo Maria Pepe (2020) suggests that U.S. opposition to the NS2 project through sanctions policy, on the one hand, made it difficult for Germany

to “politically justify” the active support to the pipeline, while on the other hand to “reject and criticise” it “as a matter of principle” (Westphal et al. 2020).

The private investment made in NS2 limited the financial risks for the German government. On the German side, the main financial losses from the cancellation of the NS2 project are borne by private energy companies investing in it. Piebalgs (2021) viewed the German companies involved in the NS2 project as being “squeezed between a rock and hard place” because of U.S. sanctions. The sanctions carried significant weight to affect the profitability of the involved companies’ businesses. Yet, Piebalgs believes the issue was left to the German government without lobbying from the business sector, as it was highly political (Andris Piebalgs. Former EU Energy Commissioner. Author’s interview. March 24, 2021). Zaslavskiy (2020) assessed Germany’s resistance to U.S. sanctions to be insufficient. He remarked that despite the influential beneficiaries of the NS2 project, nobody intended to “fight” for this project (Ilya Zaslavskiy. Free Russia Foundation. Author’s interview. April 18, 2020). Unlike Piebalgs and Zaslavskiy, Massoglia (2021) argues that between 2017 and 2021, companies involved in NS2 (without specifying the country of origin) spent more than \$14.2 million lobbying for the project, and mostly against sanctions (Massoglia 2021).

This study has identified both political and economic reasons for U.S. opposition to the NS2 project. Strong coalitions around strategic resources involving Russia strengthen Russia’s power in a multipolar world order but threaten U.S. influence. The NS2 project was a coalition of this kind. With its attempts to hinder gas cooperation between Germany and Russia, the United States pursued a realist political strategy – to undermine Russia’s influence over Europe and to prevent Russia from strengthening its economic power and thus, indirectly its military and political capital. This U.S. view was justified by Russia’s war against Ukraine that began in 2022, which was accompanied by high gas prices in Europe, creating threats to the security and economy of Europe. Joe Biden (2022) describes the foreign policy of the Putin government: “It was always about naked aggression, about Putin’s desire for empire by any means necessary – by bullying Russia’s neighbors through coercion and corruption, by changing borders by force, and, ultimately, by choosing a war without a cause.” (Biden quoted by Karmanau et al. 2022). The strengthening of Germany’s energy ties with Russia was perceived by the United States as enhancing German dependence on Russia, which could have been used by the latter as a political lever. This point of view, based on a political rationale, was supported by nine out of 31 respondents interviewed for this study. For example, Van Agt (2020) saw the reason of the United States’ criticism of the NS2 project in its concerns about Germany’s growing energy dependency on Russia. He believed that the United States sought to prevent this dependence from creating new imbalances. The United States was concerned that growing dependence on Russian

gas would allow Russia to use energy as a leverage in its relations with Germany to advance its foreign security policy interests (Christof van Agt. IEF. Author's interview. March 19, 2020). An alternative view was expressed by a Russian energy diplomat (2020) who argued that German-Russian interdependence excluded the possibility of unilateral political leverage. The diplomat believes that leverage can be applied not only by the energy exporter, but also the importer. The importer can abuse its monopsony (a single buyer) position, for example. Thus, interdependent relations, according to this diplomat, were the most balanced interaction model for both sides (Russian energy diplomat. Author's interview. June 8, 2020).

The United States is at the center of the global economy, which allows it to play a leading role and effectively protect its own interests. Nineteen out of 31 respondents interviewed for this study believed that U.S. opposition to NS2 was economically motivated and aimed at stimulating gas exports from the United States to Europe. This perspective, based on an economic rationale, was also found in the course of the secondary research (e.g. Rumer 2018, Westphal 2018, Guliyev 2020, Gardner & Psaledakis 2021 (a)). For example, Westphal (2021) described U.S. opposition to the NS2 project partially as an element of a trade conflict and an expression of U.S. energy dominance (Westphal 2021: 2). The business logic behind U.S. opposition to the NS2 project was based on the perception of Russian gas as a competitor to U.S. LNG in the European market. Referring to U.S. LNG, a German fossil fuel industry representative (2021) interviewed for this study compared Trump's opposing stance on NS2 with that of a businessman trying to prevent competition with his own product (German fossil fuel industry representative. Author's interview. January 25, 2021). The business logic of the United States in its sanctions policy was evidenced by the fact that U.S. sanctions from the outset included the Russian private gas company Novatek (*Congressional Research Service* 2022), which exported LNG from Russia. From an economic standpoint, another reason for U.S. opposition to the NS2 pipeline throughout its construction could be its possible impact on the U.S. dollar's status as a currency for trading hydrocarbons, which could have accelerated the U.S. economic downturn.

Despite sustained U.S. opposition, the German government continued to support the project, both politically and economically. But faced with a dilemma, Germany needed to reconcile the issue with its strong and standing ally, the United States. Germany's then Finance Minister Olaf Scholz, in a personal letter dated August 7, 2020, to his then counterpart, Treasury Secretary Steve Mnuchin, offered funds to import U.S. LNG. According to the document, Germany offered to invest in the development of LNG terminals in Wilhelmshaven and Brunsbüttel on the German North Sea coast: "The German government is willing to massively increase its public support for the construction of

LNG terminals along the German coastline... by providing up to €1 billion.” (*Deutsche Welle* 2021 (c), *Radio Free Europe/Radio Liberty* 2021 (c)). This funding proposal can be regarded as a tool to prevent U.S. sanctions on the NS2 pipeline.

During the first half of Biden’s presidency, the NS2 project was nearly 98 percent complete with over €9 billion (Shalal 2021, *Deutsche Welle* 2021 (d)), which prevented the new U.S. president from blocking the project. In June 2021, U.S. Secretary of State Antony Blinken called the NS2 pipeline a *fait accompli* (Blinken quoted by Wintour 2021 (a)) and on July 21, 2021, a week after meeting with Merkel, Biden lifted the sanctions (Wintour 2021 (a)).

Another important action taken during Biden’s presidency was a compromise deal in favour of Ukraine, reached between the United States and Germany in July 2021. In accordance with this compromise agreement, Germany is committed to establishing and managing a Green Fund for Ukraine “to support Ukraine’s energy transition, energy efficiency, and energy security”. Germany and the United States agreed to strive to promote and support at least \$1 billion (€0.85 billion) of investment in Ukraine’s Green Fund, including from third parties such as private sector entities. Germany pledged to make an initial contribution of at least \$175 million to the fund and to renew its commitments in the coming years. An important element of this agreement is that Germany has committed itself to use all available leverage to ensure the extension of gas transit between Ukraine and Russia for up to 10 years (*German Federal Foreign Office* 2021). In respect of Russia, the agreement states: “The United States and Germany are united in their determination to hold Russia to account for its aggression and malign activities by imposing costs via sanctions and other tools. We commit to working together via the newly established U.S.-EU High Level Dialogue on Russia, and via bilateral channels, to ensure the United States and the EU remain prepared, including with appropriate tools and mechanisms, to respond together to Russian aggression and malign activities, including Russian efforts to use energy as a weapon. Should Russia attempt to use energy as a weapon or commit further aggressive acts against Ukraine, Germany will take action at the national level and press for effective measures at the European level, including sanctions, to limit Russian export capabilities to Europe in the energy sector, including gas, and/or in other economically relevant sectors. This commitment is designed to ensure that Russia will not misuse any pipeline, including Nord Stream 2, to achieve aggressive political ends by using energy as a weapon.” (*German Federal Foreign Office* 2021). Germany’s then Foreign Affairs Minister Heiko Maas (2021) called the deal “constructive” and noted Germany was “back to pursuing our [Germany’s] shared goals and convictions jointly with the United States with regard to Russia policy and energy policy.” (Maas quoted by *Deutsche Welle* 2021 (d)). Amos Hochstein (2021), Biden’s senior advisor for energy

security found the deal pragmatic: “The idea of reaching the joint statement with Germany was recognising the reality of the completion of the pipeline itself, understanding that aggressive action by the United States would probably not have changed the outcome and perhaps only would have delayed it. So looking at reality, understanding it, and fashioning something with an arrangement with Germany that would allow us to continue to defend the significant interests that Europe has, that the United States have, to defend the security of Ukraine while addressing and mitigating the bad effects and the threats that Nord Stream 2 could pose.” (Hochstein quoted by Wintour 2021 (a)).

The compromise agreement between the United States and Germany demonstrated the presence of U.S. influence over Germany. At the same time, this agreement underlined Germany’s important role in achieving U.S. objectives with regard to Russia. For the NS2 project, the compromise agreement meant a weakening of the confrontation from the United States. Weakening the confrontation to the NS2 project met the interests of both Germany and Russia, whose leaders were satisfied with the approaching completion of the pipeline (*President of Russia* 2021 (a)). Table 8 summarises the main actions taken by the United States to counter the NS2 project prior to the Russian invasion of Ukraine in early 2022, the results achieved in this regard, and shows the relation of these results to the study outcome.

In the absence of the Russian invasion of Ukraine in 2022, the NS2 project could be considered to have overcome political opposition when the pipeline could have been put into operation, thereby strengthening German-Russian gas relations. But Russia’s invasion of Ukraine changed the whole environment around the project, strengthening the arguments against it. The opposing arguments were further reinforced by rising gas prices, which enhanced the perception of Russian gas as an energy weapon.

Research for this dissertation has revealed a certain weight of the U.S. factor in German-Russian gas relations. By strongly opposing the NS2 project, the United States achieved its desired goals, which indicates that it has considerable power over and influence on international relations among powerful nations. Although the United States was unsuccessful in its attempts to stop the construction of the NS2 pipeline, it managed to cancel this pipeline project. As noted by White House Press Secretary Jen Psaki (2022), the NS2 pipeline became “dead at the bottom of the sea” (Psaki quoted by *TASS* 2022 (a)). Moreover, the United States managed to open up more opportunities for U.S. LNG exports to Germany to replace Russian gas. In the political realm, Germany’s expanded energy partnership with the United States leads to increased U.S. influence over its foreign policy considerations.

Table 8. Major U.S. actions against the NS2 project and their consequences prior to the Ukrainian crisis of 2022.

Measures	Objectives	Achievements	Outcome for the study
Countering America's Adversaries Through Sanctions Act of 2017 (H.R.3364)	U.S. Department of State issued new guidelines stating that this Act would also apply to NS2 (July 2020)		
European Energy Security and Diversification Act of 2019 (H.R.1453)	Competitiveness and diversification of supply sources in the European energy market with a special focus on reducing Europe's energy dependence on Russia	<ul style="list-style-type: none"> • As of February 2021, 18 companies refused to participate in NS2 • The NS2 pipeline's construction was temporarily suspended 	<ul style="list-style-type: none"> • Germany's support for NS2 continued • IV of Hypothesis 1 – economic rationality mattered, and Hypothesis1 found evidence
Energy Security Cooperation with Allied Partners in Europe Act of 2019 (S.1830)	Urging NATO states not to buy Russian gas and encouraging gas exports from the United States	<ul style="list-style-type: none"> • €1 billion German investment in the development of LNG terminals to import more U.S. gas 	
Protecting Europe's Energy Security Act of 2019	Partial imposition of sanctions against ship-owning companies involved in laying the NS2 pipeline. In January 2021, this Act was amended with broader sanction definitions		

8. WHERE GEOECONOMICS MEETS GEOPOLITICS

The goal of this chapter is to provide an analysis of German-Russian gas relations with consideration to the broader international system. The main question being addressed by this chapter is what the geopolitical implications of the geoeconomic relations between Germany and Russia. This chapter argues that in addition to its primary goal of ensuring European energy security and economic profitability for the companies investing in NS2, the NS2 pipeline project was aimed at achieving clear geopolitical goals for Germany. This can be assessed as Germany's rational response to the changing order in the global balance of power. The chapter discusses geopolitical rivalry in Eurasia, which is one of the IVs of this study. The focus is on the Germany-Russia-China triangle and the balancing of China's power, using economic cooperation between Germany and Russia as a tool. It is mainly based on realist principles and explains the relationship between Germany and Russia with consideration of the balance of power in the international political arena. Liberal principles, aiming to ensure security between the two states through their interdependent relations are also touched upon.

8.1. Geoeconomics of Germany as the Basis of its Geopolitical Power

The modern economy is based on technology and information industries (Konina 2016: 144, Diesen 2021 (a): 1-2), which, thanks to its level of technological development, gives Germany an advantageous position among developed economies. Germany has established itself as one of the most successful geoeconomic states, which makes it possible to classify it as a geoeconomic power (Szabo 2015, 2017, Diesen 2018, Kundnani 2019). It is worth noting that Germany ensures one of the highest overseas development assistance levels in the world. The country spent \$28.4 billion on total official development assistance in 2020, making it the second-largest donor in the Organisation for Economic Co-operation and Development (OECD) in absolute terms (*Donor Tracker* n.d.).

It is the geoeconomics of Germany that are the “decisive advantage” for the collective global competitiveness of the EU (Diesen 2018: 141). At the same time, it is Germany's economic and market power that ensures its leading role in the EU. In theory, Germany is able to employ its economic power as a tool to advance its geopolitical interests. Yet, as argued by Kefferpütz (2021), Germany plays a “one-sided” geoeconomic game, in which it mostly adapts to geopolitics “to defend economic interests rather than using economic means to advance a geopolitical agenda”, which the

author explains by the belief that Germany is primarily an economic actor rather than a geopolitical one (Kefferpütz 2021).

The strength of geoeconomic states is based primarily on economic power. A distinctive feature of a geoeconomic power from geopolitical one is its reliance on the economics, rather than on the military, as a form of power. This leads to the predominance of economic logic in Germany's foreign policy decisions, in which the export sector occupies a special place (Szabo 2017: 41). In 2020, Germany's exports amounted to \$1,378 billion (*Statista* 2021 (c)), meaning it ranks third in global exports of goods after China and the United States (*BMWi* 2021: 1). But transformations of a geopolitical and geoeconomic nature on a global scale, which are discussed in the next section, could jeopardise the competitiveness of Germany's export economy (Heilmann et al. 2020: 58).

Szabo (2015) observes a tension between "Germany the Civilian Power" and "Germany Inc. the export-driven economy" (Szabo 2015: 8). Germany, as a global trading state, prioritises stable economic links over other considerations when evaluating its economic partners. This is an "economic form of realism" known as "geo-economics" or "commercial realpolitik", analogous to "political realism", which attaches high importance to national economic interests in the foreign policy of the state (Szabo 2015: 8, Kefferpütz 2021). At the same time, Germany's economic power is vulnerable to external factors, based on its strong dependence on energy imports and markets for its own exports (Szabo 2017: 42-44). Access to energy resources is vital to Germany's advanced industrial economy (Kwiatkowska-Drożdż et al. 2014: 5, Szabo 2017: 42-44, Cunningham 2018: 5-6, Ogurek et al. 2019: 134). Prior to the Russian invasion of Ukraine in 2022, Germany's commercial logic treated Russia, its main energy supplier, as a geoeconomic player. But this commercial logic was countered by the strategic logic of a potential military challenge from Russia.

German political leaders prioritise commercial interests, especially those related to the export market and natural resources. This trend reinforces the role of the chancellor's office, as well as the ministries dealing with finance, economics, and technology. There has been a strengthening of close interaction between politics and business, especially in Germany's relations with state-dominated economies, such as Russia and China (Szabo 2015: 9-12, European politician. Author's interview. March 3, 2021). The Federal Foreign Office sees China as Germany's "largest trading partner for goods", with a trade volume of over €245 billion in 2021 (*German Federal Foreign Office* 2022). In turn, prior to the aggravation of relations caused by the Russian invasion of Ukraine in 2022, Germany was Russia's second largest trade and economic partner after China (*President of Russia* 2021 (b)).

Geopolitics of gas is closely related to geoeconomics. Private companies are *de facto* instruments of states pursuing geoeconomic strategies. German private companies are internationally competitive and able to drive Germany's geopolitical interests. These companies are engines and the pride of the German economy (Szabo 2017: 42-44, Heilmann et al. 2020: 58). In particular, private companies had established long-term cooperation between Germany and Russia in the gas sector. Energy cooperation between the two states had a mutually beneficial nature – for decades the German side received not only natural gas, but also lucrative multimillion-dollar orders for pipes, equipment, and technologies that provided German concerns with high profits. Gazprom and its subsidiaries were co-founders and had stakes in leading German companies, jointly owning large underground gas storage facilities in Germany. German companies, in turn, had stakes in energy production in Russia. These activities, which benefited the German private sector, ultimately also benefited the German state, contributing to its economic development.

Diesen (2022) identifies three pillars of geoeconomics: *strategic industries*, *transportation corridors*, and *financial instruments* (Diesen 2022). German-Russian gas cooperation reflected the major pillars mentioned, pointing to its geoeconomic significance for the parties involved. Given the regional nature of natural gas infrastructures, the “geo” aspect plays an important role in determining gas pipeline projects. This “geo” aspect provided Russian gas imports with some competitive advantage over other alternative gas supply options to Germany. Countries in the Caspian and Central Asian region have been potential competitors for Russia in supplying gas to Europe. But Russia's larger resources and relatively closer geographic location to Europe made gas deals with Russia more lucrative than with these potential competitors. The well-consolidated cooperation ties between Russia and European gas importers, inherited from Soviet times, also played a role in this respect. Russia thus had the upper hand and was able to maintain its status as a major European gas supplier. Stern (2020) asserts that German and other European governments and gas companies made continuous efforts to diversify their natural gas supply, but failed. If they had succeeded, it would prevent the politicisation of natural gas relations. It was this failure in the diversification efforts that allowed Russian gas to conquer the German and European markets (Jonathan Stern. OIES. Author's interview. April 24, 2020).

It can be argued that in addition to the geoeconomic benefits, the strengthening of German-Russian gas cooperation also carried geopolitical benefits. Strengthening Germany's role as a European gas hub (Umbach 2018: 3, Simón et al. 2021: 99-100) could have enhanced Germany's bargaining power in relation to both gas suppliers and consumers, as well as increase its role in shaping European policy towards Russia. “Connectivity is power, interdependence can be weaponized and the state with the

most effective connections, able to exclude others, will be the central mover and shaker,” argues Kefferpütz (Kefferpütz 2021). Germany and Russia maintained an interdependent economic relationship. It is not easy to provide a clear degree of qualitative explanation of this interdependence. As discussed in Chapter 5, the long-term prognosis associated with the German Energiewende is that with time, Germany will need less and less fossil fuel imports, which could have made the country less dependent in its interdependent energy relationship with Russia. In the asymmetric relations, the party whose power prevails can change the rules of the game in its own favour and extract political benefits (Thompson 2001: 560). German-dominated interdependence between the two states could have limited the prospects for Russian influence over Germany, rather, could have been used by Germany to control Russia’s assertive ambitions in order to prevent the transition to military aggression.

8.2. The China Factor in a Multipolar Eurasia

The global economy has supported the development of a more multipolar world, with several centers of power. Trade has become a geopolitical issue in a world shaped by strategic rivalry, in which exchange relationships have become “political currency” (Westphal 2021: 2). Technological innovation and economic growth have become the main indicators of geopolitical competition in the global arena. Globalisation has intensified fierce competition for resources, technology and market share, creating a “zero-sum” world (Szabo 2015: 8-10, Bayramov 2020: 1, Diesen 2021 (a), Kefferpütz 2021). Kefferpütz (2021) notes a change in the nature of geopolitical confrontation due to globalisation: “In such a situation, hegemonic struggle becomes less a direct contact confrontation via proxy wars and more an indirect, fluid game of strategic networking with the aim of expanding one’s connections, creating orders in economic, digital and political spheres, and shutting out adversaries.” (Kefferpütz 2021). Diesen (2021) gives a significant role to geoeconomics in the balance of power in international system: “Geoeconomics can be used either for dominance and hegemony, to create a system of ‘sovereign unequals,’ or it can be used to establish a multipolar system of ‘sovereign equals’. Either way, geoeconomic power entails the ability to skew the symmetry of dependence.” (Diesen 2022).

The current shifts taking place in the global political and economic balances have affected the geopolitical outlook towards Eurasia. This geopolitical transformation is reflected in the emergence of thought that treats the East as a potential geopolitical counterweight to Western influence in world

politics (Erşen 2014: 187). An important trend in this regard is the shift in commercial focus towards emerging markets which are simultaneously experiencing industrialisation with a new technological base and rapid urbanisation (Konina 2016: 144). The influence of the United States as the main engine of world economic development is weakening (e.g. Szabo 2015: 10, Brooks & Wohlforth 2015: 7, Konina 2016: 144, Diesen 2018: 2), while that of China is growing (e.g. Konina 2016: 144, Simón et al. 2021, Kefferpütz 2021). China is the most important trading partner of over 130 states (Kefferpütz 2021). This gradual shift in geoeconomics has had an impact on the geopolitical level. The rise of China in world politics has had an impact on the balance of power in the global political arena. China has taken a firm grip on global power politics through complex channels, including partnerships with developing states and investment in critical Western infrastructure (Markgren 2018: 8, Scholvin & Wigell 2019: 1). China's assertive involvement in critical infrastructure such as ports, telecommunications and logistics is causing concern in the West, and fears of China using it as a strategic foreign policy tool (Markgren 2018: 8, Simón et al. 2021: 91, 102). In the Asia-Pacific region, China is increasingly using economic leverage to advance its political objectives (Ernst 2020). The closeness of Russia and China has raised concerns in the East. Diesen (2018) believes that in its intention to deepen economic connectivity with Russia, Japan pursues a goal of diminishing Russia's reliance on China, which would challenge Russia's neutral stance towards the Sino-Japanese rivalry. At the same time, India's interest in deepening economic ties with Russia, according to the author, is aimed at preventing Beijing's undue influence on Moscow (Diesen 2018).

Modern geoeconomics assumes an important role for regionalism in the development of collective bargaining power (Diesen 2018: 12, Bayramov 2020: 5). With the rise of Asia, most of the major Eurasian economies have come up with various initiatives to promote Eurasian integration, which according to Johannes Linn (2006), has the potential to become the largest global economic and geopolitical phenomenon of the 21st century (Linn 2006). The phenomenon of Eurasian integration is defined as the growing economic connectivity of the continental area with a new physical infrastructure, including transport and energy infrastructure, such as pipelines, electricity grids and seaports; and cooperation mechanisms, including institutions and trade agreements, aimed at strengthening the bargaining positions of the main Eurasian powers vis-à-vis other powers.

Russia's position in Eurasian integration is very advantageous due to its vast geographic space, which can be used as a land bridge between Europe and Asia. Russia's approach to this integration is closely linked to its "status-seeking behavior" (Krickovic & Pellicciar 2021: 88). In the new system of power redistribution, Russia faces strong competition from China. In addition to China, Europe, Türkiye, and India are also demonstrating great economic momentum, are becoming increasingly active in

their foreign policy and show the potential for strong military capabilities which could compete with Russia. Globally, Russia's strong competitors in terms of political influence and market access are the United States, China and Europe (Rumer 2017: 78-81). Referring to geoeconomic theory, Diesen (2018) opined that integration across the Eurasian continental area could strengthen Russia's bargaining power by increasing the reliance on Russia as an energy and transport hub, while links to emerging markets in Asia could allow Russia to diversify and avoid overdependence on a single state or region (Diesen 2018: 1-12). An important aspect in this regard is the strengthening of strategic ties between Russia and China, which in turn, weakens the bargaining positions of Europe, including Germany, in relation to each of them.

The Sino-Russian *Treaty of Good-Neighborliness and Friendly Cooperation* of 2001 was the first friendship treaty between Russia and China since the Sino-Soviet pact of 1950. This treaty, strengthening strategic links between the two states, is of great geopolitical significance. Articles 7 and 16 of the treaty reflect the expansion of military cooperation between the two states. Article 4 of the treaty reflects supporting the "national unity and territorial integrity" of the partner state, while Article 5 points to Russia's stance on the Taiwan issue, recognising it as an "inalienable part of China" (*Treaty of Good-Neighborliness and Friendly Cooperation* 2001). The treaty, linking Russia and China both politically and economically, appears to be a pact in an attempt to protect and cooperate with each other in a new international order.

Russia and China have significantly expanded their cooperation since 2014 (Gabuev 2016: 3-5), especially in the fields of energy, military, and technology (Coats 2019: 24). China's support for the Yamal LNG project in the Russian Arctic, financing by the Silk Road Fund of China, loans from its state-owned banks and investments through its state-owned enterprise are signs of China's economic support for Russia (Gabuev 2016: 19-20, Hillman 2020: 4-5, Abdelal & Bros 2020: 126, Spivak & Gabuev 2021). Since Novatek was a target of Western sanctions, China's support for the Yamal LNG project became a significant support for Russia. Novatek secured \$12 billion from Chinese state-owned banks – the Export-Import Bank of China and the China Development Bank at very low interest rates (Spivak & Gabuev 2021), which points to the political nature of China's support for Russia. The thaw in Sino-Russian relations after a long history of competition and mistrust was striking. Both Russia and China sought to reduce their dependence on Western financial systems. The two states started using their own currencies for bilateral trade in 2010 and opened their first line of currency swaps in 2014 (Hillman 2020: 4-5). Moreover, they also signed cybersecurity deals (Kliman et al. 2020: 20), such as the 2015 agreement (Order Nr.: 788-p) on ensuring international information security (*Government of the Russian Federation* 2015).

Diesen (2021) believes that Russia's economic diversification was carried out in line with its objective of being a soft-balancer in a multipolar Greater Eurasia (Diesen 2021 (b)). The Russian government realised that its bargaining power with the West was limited by its overly Western-oriented foreign policy and therefore increasingly turned towards the East, mainly China, in order to strengthen its bargaining power with the West (Diesen 2018: 2, 2020). Russia's direct gas pipelines to China and Türkiye, as well as LNG exports through its growing Novatek, which allowed for flexibility in gas exports, were able to reduce Russia's dependence on Europe. For Russia, strategic partnerships with an eastern power – China, and a European power – Germany, could have allowed maneuvering between them. Russia's vulnerable position after the 2014 Ukrainian crisis, including Western sanctions brought it even closer to China (Gabuev 2016: 1, Diesen 2018: 75-100, Abdelal & Bros 2020: 126-127), causing concerns in Europe (Diesen quoted by Durden 2021).

In Russian political thinking, geopolitics remains the dominant trend, which means that “geopolitical undercurrents” exist in every geoeconomic project developed by Russia. Thus, the development of Russia's economic links is accompanied by a strong political emphasis. Despite the prevalence of power politics, Russia understands the growing importance of geoeconomics. Control over transport corridors, strategic markets, influence on economic blocs and financial institutions have gained large importance in Moscow's global strategy. But the Russian economy, which relies heavily on control over energy and transport infrastructure, contributes to the ambiguity between Russian geopolitics and geoeconomics (Diesen 2018: 1, Baev 2019: 81-84).

In 2016, Russia started to pursue a Greater Eurasia initiative (*President of Russia* 2016), aimed at promoting economic integration on the “supercontinent”. At the center of this initiative has been Russia's close partnership with China. As strong players in Eurasia, Russia and China have a wide range of interests and significant leverage in the region. The two states have different visions for an integrated Greater Eurasia, however. In addition to the historical rivalry and territorial disputes between Russia and China, Alexander Gabuev (2016) notes potential arenas for contradiction between the two states, such as competition for influence over Central Asia, and China's economic and demographic threat to Siberia and the Far East (Gabuev 2016: 4, 25-26). Nevertheless, in their efforts to establish a multipolar world order, Russia and China value cooperation with each other. This cooperation is premised on the alignment of their interests in that both seek to avoid an open rivalry (Garibov & Ibrahimov 2013: 8-9, Diesen 2018: 95-107, 2021, Bayramov 2020: 14, Bordachev 2022). The two states also have similarities in ideology and principles of governance. Steve Tsang (2021), Director of the China Institute at SOAS University of London believes that the revival of the

Marxism-Leninism ideology in China by President Xi Jinping has made the country much better disposed to Russia (Tsang's speech on *Al Jazeera* 2021).

Despite the pandemic, trade between Russia and China amounted to \$100 billion in 2020, and according to Putin (2021), could reach \$200 billion by 2024 (Putin quoted by Polishchuk & Xu 2021). *The Power of Siberia* natural gas pipeline with an export capacity of 38 bcm (*President of Russia* 2019, *Gazprom* n.d.) is a prime example of strategic energy cooperation between Russia and China. Emphasising the growth in exports through this pipeline, Gazprom CEO Alexey Miller (2022) noted that gas supplies to China "regularly outstripped" Gazprom's contractual obligations (Miller quoted by *Gazprom* 2022 (a)). In February 2022, Gazprom and China National Petroleum Corporation signed a new contract on supplying 10 bcm of Russian gas per year to China along the "Far Eastern" route (*Gazprom* 2022 (b), *Global Energy* 2022). Miller (2022) called this contract "indicative of the exceptionally strong mutual trust and partnership" between Russia and China and their companies (Miller quoted by *Global Energy* 2022). The possibility of large discounts on the price of gas for China cannot be ruled out as the commercial elements of this cooperation give way to political goals.

China's growing geoeconomic power contributes to the growth of its geopolitical power. In line with economic growth, China has rapidly increased its military spending since 2000 (Brooks & Wohlforth 2015: 18, *CSIS* 2021, Tian & Su 2021: 19-20). A *CSIS* study (2021) found nearly six-fold growth in China's defence spending over the past two decades, from \$41.2 billion in 2000 to \$244.9 billion in 2020. The *CSIS* study argues that China's real military spending is even higher than the official figures, indicating a lack of transparency in the development of its military capabilities (*CSIS* 2021). Daniel Coats (2019), Director of U.S. National Intelligence notes: "As China's global footprint and international interests have grown, its military modernization program has become more focused on investments and infrastructure to support a range of missions beyond China's periphery, including a growing emphasis on the maritime domains, offensive air operations, and long-distance mobility operations." (Coats 2019: 26). A 2021 report of the Office of the Director of U.S. National Intelligence states: "China is building a larger and increasingly capable nuclear missile force that is more survivable, more diverse, and on higher alert than in the past, including nuclear missile systems designed to manage regional escalation and ensure an intercontinental second-strike capability." (*Office of the Director of U.S. National Intelligence* 2021: 7). A senior White House official in the Trump government claimed that "China poses an even greater threat to Europe than Russia does". The official attributed this argument to the relative predictability of Russia's interests and behaviour, while China's unpredictability was assessed as a "highly disruptive force in Europe" (Senior White House official quoted by Simón et al. 2021: 103).

On the eve of Russia's invasion of Ukraine in 2022, Russia and China signed a Joint Statement *on the International Relations Entering a New Era and the Global Sustainable Development*. The document reflects the mutual interests of the parties, including that the sides "oppose further enlargement of NATO and call on the North Atlantic Alliance to abandon its ideologized cold war approaches" (*President of Russia 2022 (a)*). This statement once again points to the coincidence of the political motives of the two states, which encourage them to join forces in order to counteract the policies of the West.

Timofei Bordachev (2022) emphasises the "common interests and values in relation to the international order" underlying the relations between Russia and China, in the "absence of objective grounds for mutual contradictions in any foreseeable future" (Bordachev 2022). Tsang (2021) shares a similar view, believing that the close cooperative relationship between Russia and China is based on many shared interests, including both countries' tensions with the United States and their desire to dominate the United States on the global political stage. The shared interests between the two states, according to Tsang, also include mutual support in the case of Russia on the issue of Ukraine, and in the case of China on the issue of Taiwan (Tsang's speech on *Al Jazeera* 2021). It is worth noting that China responded to the Ukrainian crises of 2014 and 2022 with neutrality and demonstrated its opposition to sanctions against Russia (e.g. Wang 2022, Cheng 2022).

In a geopolitical context, the strengthening of the strategic partnership between Russia and China is based on their common resistance to U.S. foreign policy ambitions. Russia and China adhere to similar approaches to fundamental issues of the modern world order and key international problems. This similarity contributes to the close interaction between the two states, supported by their leaders. The evolving nature and scope of relations between Russia and China signaled their desired shift in the global balance of power. Given the dimension of their respective political and economic power, this shift could affect existing political and security realms. Russia, distinguished by military power and political influence in a certain space of Eurasia, views the United States as the main threat to its security, while its relations with China are of strategic and geoeconomic priority. China is able to use global supply chains and infrastructure nodes to counter American hegemony. Both Russia and China are viewed by the United States as strategic competitors that simultaneously challenge U.S. interests and the existing balance of power in the international system (Simón et al. 2021: 96-105). Coats (2019) notes: "China and Russia will present a wide variety of economic, political, counterintelligence, military, and diplomatic challenges to the United States and its allies... China and Russia are expanding cooperation with each other and through international bodies to shape global rules and standards to their benefit and present a counterweight to the United States and other Western

countries.” (Coats 2019: 24). But the partnership between Russia and China cannot be called an anti-Western alliance, which stems from the unwillingness of both sides to confront the West in favour of the partner (Gabuev 2016: 1). This argument was evidenced by China’s neutral stance during the 2022 Ukrainian crisis, when it did not provide Russia with military and financial support.

Russia and China have long feared each other’s dominance, leaving a trail of mistrust over the symmetry of power between them. The smooth maintenance of the Sino-Russian partnership could be hampered by its economic inequality in China’s favour and the rivalry for power between the two states (Baev 2019: 84, Hillman 2020, Diesen 2021 (b)). The unrealised Altai gas pipeline (Daiss 2015) is an example of the disagreement between Russia and China. But Russia’s geopolitical advantages offset the economic inequality in its relations with China, allowing the parties to strike a balance. It is this balance of power between Russia and China that ensures the stability of their close partnership. Diesen (2021) believes that while accepting Chinese leadership, Moscow rejects its dominance. “Thus, if China chooses the *first among equals* principle, the partnership will prove to be durable and Moscow can make its peace with playing second fiddle in economic affairs to the world’s most populous nation.” (Diesen 2021 (b)). In any case, China’s growing geoeconomic and geopolitical power, from the point of view of the balance of power logic, required the employment of balancing instruments.

8.3. Energy Trade as a Balancing Tool

Moravcsik (2010) ranks Europe as the only region in the world other than the United States that is able to “exert global influence across the full spectrum of power, from ‘hard’ to ‘soft’.” The author associates this influence with a number of effective civilian and economic instruments, including neighbourhood policy, trade, institutional support, political and economic reforms (Moravcsik 2010: 91-93). As an important member of the G7, G20, OECD and NATO, with its “large diplomatic assets” (Szabo 2015: 145, Heilmann et al. 2020: 55), Germany acts as a leading power in shaping European policies towards Russia and China (Szabo 2015: 12). From the point of view of Germany, the close interaction between Russia and China represents a strategic outcome with potential challenges and risks (Simón et al. 2021: 103, Diesen quoted by Durden 2021), which can be extended to the whole EU. European policymakers acknowledge that the rise of China threatens European security, and that economics and politics should be closely intertwined in diplomatic relations with China. The EC’s

designation of China as a “systemic rival” and NATO’s recognition that China’s rise affects European security are signs of “Europe’s strategic reorientation vis-à-vis China” (Ernst 2020).

The advanced economies of Europe are of great significance for the United States in the context of its rivalry with Russia and China, where particular importance is attached to Germany (Besch 2021, Wintour 2021 (a)). This consideration increasingly influences the way the United States interacts with its European allies and competitors (Simón et al. 2021: 97-103). On the one hand, the interests of the United States and Europe coincide in the systemic rivalry with China, on the other hand, Europe is much more vulnerable in terms of geoeconomic distortions and energy trade (Westphal 2021: 3).

German Minister for Economic Affairs and Climate Action Robert Habeck (2022) believes that for too long, people have been under the illusion that “the pipeline is only to be considered from an economic point of view”. However, the minister argues, energy policy is always “to be assessed in terms of security policy and geopolitics” (Habeck quoted by *ARD Tagesschau* 2022 (a)). It can be argued that on the German side, the strengthening of German-Russian natural gas cooperation was partially facilitated by the intention to balance the potential joint hegemony of China and Russia in Eurasia. From a German perspective, two main points can be distinguished: the weakening of U.S. dominance and the growing power of China, which is increasingly supportive of Russia. In the international system which is shifting to a more multipolar structure characterised by fierce geoeconomic competition, Germany strives to maintain and increase its political power through its economic resources. The creation of a coalition by other major powers threatens to shift the balance of power. With the rise of China’s power and the diminishing power of the United States, Germany’s main ally, the proximity of Russia and China could work against German power. In this regard, the strengthening of Germany’s strategic cooperation with Russia could be assessed as a rational German response to the changing order in the global balance of power, which could have served to counterbalance China’s power. At the same time, the asymmetry in relations between Russia and China prompted Russia to strive for “strategic diversity” of partnerships in order to prevent Chinese domination (Diesen 2018: 95). From a Russian perspective, strategic cooperation with Germany could have allowed Russia to counterbalance the growing asymmetry in its relations with China. Accordingly, it can be argued that it was the desire for balance that prompted the strengthening of strategic cooperation links between Germany and Russia in order to counterbalance China. In theory, the strengthening of Germany’s geopolitical power through its strategic cooperation with Russia, counterbalancing China, would also meet the interests of the United States. This context would allow the United States to increase its own influence in Eurasia through its main European ally at the expense of China’s geopolitical power. On the other hand, this context would also serve to increase

Russia's geoeconomic and geopolitical power, thereby increasing its political ambitions and possible security threat in Eurasia.

Interviews for this study (conducted before the 2022 Russian invasion of Ukraine) suggest that the NS2 project was based not only on economic but also on political motives. Comparing the NS and NS2 pipelines, Piebalgs (2021) argued that in the latter case, political arguments prevailed over security of supply issues (Andris Piebalgs. Former EU Energy Commissioner. Author's interview. March 24, 2021). Caspar (2021) also considered the NS2 project as more political than economic. He argued that Germany's gas needs could have been delivered via the NS, Yamal-Europe and Urengoy-Uzhhorod pipelines without bringing a new pipeline into operation and considered the NS2 project a "false investment signal" for Russian business (Oldag Caspar. Germanwatch. Author's interview. February 11, 2021). The European politician interviewed for this study assessed the NS2 pipeline as a tool for Germany to maintain connectivity with Russia: "Russia's role in the German foreign policy has always been special. What else could be more suitable for strengthening ties with Russia than energy trade? It is not to say that such a connection completely excludes a possible undesirable action on the part of Russia, but rather is capable of minimising it in relation to Germany." (European politician. Author's interview. March 3, 2021).

Guliyev (2020) believed that the implementation of the NS2 project, in addition to strengthening Germany's economy and its importance as a major European gas hub, could have made the EU more independent from the United States (Igbal Guliyev. MGIMO. Author's interview. May 7, 2020). Diesen (2021) had an extended view, considering that the economic connectivity between Germany and Russia through the strengthened gas cooperation was in the interests of both to decentralise power from the United States and China, respectively (Diesen quoted by Blinova 2021). The author explained this intention by the "natural inclination to balance a hegemon to restore sovereign equality". As evidence of his argument, Diesen cited the EU's efforts to build a more equal partnership with the United States by pursuing common industrial policies, ensuring favourable transport corridors and energy supply pipelines. The geoeconomic rise of the EU, in turn, Diesen believes, has been recognised by the United States to the extent that it pursues a collective Western hegemony under the leadership of Washington (Diesen 2022).

Contrary to the above assumptions, the interviews conducted for this study did not produce evidence of Germany's desire to decentralise power from the United States. Despite the diminishing power of the United States, it is still powerful enough to ensure political and military security in Europe, making it unrivaled as Germany's main ally. Another important element in this regard is the political

and cultural-ideological similarities between Europe and the United States, which are not so strong between Europe and Russia. But the China factor in determining Germany's foreign policy interests is relevant. The European politician interviewed for this study believes that the rapprochement between Russia and China carries certain security risks for Eurasia, which at a certain level can be transformed into a threat (European politician. Author's interview. March 3, 2021). Discussing the NS2 project from a geopolitical perspective, Caspar (2021) emphasised its role in allowing Germany to strengthen connection with Russia through "working relations". This connection could have helped Germany in its competition with other countries, including China. At the same time, Caspar believes that the project could have allowed Germany to exert political influence over future Russian governments at least at a time when Germany is expected to reduce its gas needs as a result of its energy transition (Oldag Caspar. Germanwatch. Author's interview. February 11, 2021).

Russia is pursuing a realist approach to foreign policy and employs its military power as a tool to achieve its political goals (e.g. Coats 2019: 37). Nikolay Vlasov (2018) believed that Russia was perceived by the German political elite primarily as a threat, and even the most ambitious threat of all facing the country. Accordingly, the key goal of German security policy was to prevent Russia from turning from a potential to a real threat to Germany and its allies. Vlasov argued that in its policy towards Russia, the German political leadership was guided by the invariability of contemporary Russian policy for the foreseeable future (Vlasov 2018: 192). Given Russia's political power and influence over a certain area in Eurasia, from a German perspective, the economic interdependence between Germany and Russia could have retained Germany's influence over Russia "by keeping Russia economically connected to Europe as opposed to Russia continuing its geoeconomic drift to the East" (Blinova 2021). German President Frank-Walter Steinmeier (2021), defending the NS2 project at the time, cited Henry Kissinger's dictum that in foreign policy, good diplomats look for points of contact "in order to transform a bad present into a better future". "I think breaking bridges is not a sign of strength. How are we supposed to influence a situation that we perceive as unacceptable, when we cut the last connections?" argued Steinmeier (Steinmeier quoted by Wintour 2021 (a)). This direction was also supported by the former German Foreign Affairs Minister Heiko Maas (2021), who considered a "strategy of burned bridges" dangerous, as this could have pushed Russia towards closer economic and military cooperation with China (Maas quoted by Wintour 2021 (a)). The NS2 project reflected how energy and foreign relations tend to reinforce each other in their tendency towards cooperation or conflict. It is for this reason, Westphal (2021) believes, that Berlin hoped to use NS2 to offset the costs of a further deterioration in its relations with Russia (Westphal 2021: 2).

From the Russian point of view, Germany was seen as a “door” to lucrative European gas-consuming countries. Long-standing interdependent economic relations with this leading European power opened up significant influence channels for Russia both in Germany and in the EU (Bros et al. 2017: 44). Referring to the NS2 project, Benjamin Schmitt (2021), a former U.S. State Department energy official, opined: “They [Gazprom] have ample pipeline capacity that they could be using right now, but they are not. They have not broken their contracts, but nor have they followed normal market dynamics by booking additional capacity.” (Schmitt quoted by Wintour 2021 (a)). Strengthening strategic energy cooperation with Germany could have provided Russia with the security of energy demand from European consumers and allow it to maintain a certain degree of bargaining power in the European market. Discussing the peculiarities of Russia’s geopolitical position, Bordachev (2022) argued that “only in the West Russia interacts with an association of powers that, in their totality, are capable of posing a threat to basic Russian interests and values.” (Bordachev 2022). Therefore, interdependent relations with Germany, the leading economic and political power in Europe, were seen as capable of softening the negative attitude of the West towards ambitious (at times aggressive) political stance of Russia. Considering that building a pipeline is time-consuming and expensive, Metz (2021) believed that Russia had an interest in using NS2 to make it profitable. “Russian natural gas could supply all of Europe via NS2 and Germany without third countries being able to exert pressure here. The situation is different, for example, in the case of the Yamal pipeline through Belarus, which is being used by Alexander Lukashenko as a means of exerting pressure.” (Andreas Metz. German Eastern Business Association. Author’s interview. March 18, 2021). This consideration had more political than economic dimensions. A direct energy connection with the leading importer through the NS2 pipeline was supposed to increase Russia’s bargaining power over transit states, as well as in negotiations with states whose interests might be linked to this project.

This chapter presented the relationship between geopolitics and geoeconomics in German-Russian gas relations. The geopolitical view of these relations reflected both the German and Russian perspectives, which, however, changed significantly after the Russian invasion of Ukraine in 2022. From the German perspective, strengthening strategic ties with Russia through a gas cooperation agreement, a liberal approach focusing on economic interdependence, was supposed to contribute to security and reliability between the parties involved, thereby limiting the range of undesirable behaviour between them. As long as the parties are involved in a multi-billion project, they are bound by bonds of security and are sensitive to confrontation with each other on major political issues. In this respect, the NS2 pipeline was supposed to serve not only to supply gas, as stipulated in formal agreements, but also to serve as a direct link of security between the two states. A distinctive element in this regard is that Russia’s foreign policy is largely based on realist principles, which limits the

credibility of applying liberal assumptions to Russia. Regarding external balancing, the chapter highlighted both states' motives to counterbalance China's growing power, which found support in this study. The political motives presented in this chapter serve as a secondary explanatory factor for this study, however. With Russia's war against Ukraine, the mentioned political motives of Germany, both in terms of external balancing and ensuring security in interdependent relations, lost their significance. In terms of balance of power, the Ukrainian crisis of 2022 can be said to have strengthened the bargaining power of the EU in its relations with Russia and deepened the gap between their economies in favour of the former.

9. THE UKRAINE FACTOR – THE WAR-ABSORBED GAS

This chapter aims to analyse the impact of the Ukraine factor on German-Russian gas relations. Political opposition to the NS2 project caused by the Ukrainian crises constitutes one of the IVs of this study. The chapter deals with three crises: the gas crisis that arose as a result of commercial and geopolitical disputes between Russia and Ukraine in the 2000s; the political crisis of 2014, involving the annexation of Crimea by Russia and the seizure of parts of the two eastern provinces of Ukraine by Russian-backed Ukrainian separatists; the political crisis of 2022 – Russia’s war against Ukraine. The chapter describes the significant impact of the Ukraine factor on German-Russian relations and its implications specifically for gas cooperation.

The chapter begins with an overview of the commercial and regulatory framework covering the transit of Russian gas to Europe through Ukraine and seeks to explain Ukraine’s role and the function of its transit infrastructure in German-Russian gas relations. This section also describes how the linkage between political and economic issues was built in Russian-Ukrainian relations. It then discusses the energy crisis that arose as a result of commercial and geopolitical disputes between Russia and Ukraine. The chapter is then divided into two parts dealing with the Ukrainian crisis of 2014 and the Ukrainian crisis of 2022. It presents a comparative analysis of the impacts of the 2014 and 2022 crises on political and economic relations between Germany and Russia. Since the war between Russia and Ukraine was still ongoing at the time of the dissertation submission, the study may lack a complete analysis of the impact of the 2022 Ukrainian crisis on German-Russian relations.

9.1. Energy Crisis. A Failure of the Political-Economic Linkage

The high degree of energy integration between Russia and the former Soviet states continued to a large degree in the post-Soviet era. Gas links between Russia and Ukraine largely maintained their previous infrastructure (Pirani 2009: 2, Trachuk 2016: 148). Gas production in western Ukraine was the source of early Soviet exports to Europe (Pirani et al. 2020:1). Ukraine’s inherited Soviet gas export infrastructure retained the transit infrastructure that made it the largest export route for Russian gas supplies to Europe. In the early 1990s, over 90 percent of Russian gas exports to Europe were supplied through Ukraine (Pirani et al. 2020:1).

At the time of the collapse of the USSR, domestic gas production in Ukraine was in decline (Pirani 2007: 17, Jones & Thornton 2014), which Gustafson (2020) links to the “profligate” exploitation of Ukrainian gas resources by the planned economy of the USSR (Gustafson 2020: 324). According to the IEA, Ukraine’s dependence on gas imports increased from 56 percent to 81 percent between 1985 and 1992 (Pirani (2007) citing the IEA Report 1994: 335). At the early stages of Ukrainian-Russian gas cooperation, the economies of both states suffered from the post-Soviet depression. Ukraine found itself in a worse economic position than Russia in the post-Soviet era (Pirani 2007: 6-7, Gustafson 2020: 330). It thus, took advantage of the opportunity to pay for a significant portion of the gas it imported from Russia by barter (e.g. transit-for-gas). Ukraine’s insolvency to pay for the gas it imported was offset by its ability to transit Russian gas to Europe. At the time, gas relations between the two states were regulated through intergovernmental agreements (Pirani 2007: 18, Trachuk 2016: 152, Gustafson 2020: 329).

From a security point of view, the transit of Russian gas through Ukraine was not always smooth and was accompanied by disputes between the two. Simon Pirani (2007) notes that since late 1998, Gazprom and the Russian Energy Ministry increasingly protested against the “theft” of gas in transit through Ukraine. According to the author, in 2001, the then Ukrainian Deputy Prime Minister Oleg Dubina admitted that in 2000 alone, 8.7 bcm of Russian gas was pumped out of export pipelines (Pirani 2007: 21-22). Ksenia Trachuk (2016) notes that in 1999, the volume of Russian gas withdrawn by Ukraine from export pipelines amounted to about 3 bcm per month, which led then Prime Minister of Russia Vladimir Putin to impose an embargo on oil and electricity supplies to Ukraine in December 1999 (Trachuk 2016: 152). Nevertheless, the gas cooperation model between Russia and Ukraine functioned effectively until the mid-2000s but lost its stability in the context of the accompanying disputes.

Russia’s gas trading policy towards Ukraine as exemplified by its acceptance of barter payments and discounted prices were based on its interest to keep Ukraine loyal to Russia and within its sphere of influence, especially in matters related to the West. In gas relations with Ukraine, Russia tried to link economic and political issues in its favour. The dissolution of the USSR left political controversies between the two states, such as Ukraine’s denuclearisation and control of the former Soviet Black Sea Fleet stationed in Sevastopol (Ukraine) (Zaborsky 1995, Kimball 2014). Independent Ukraine, having inherited large stocks of nuclear weapons from the USSR, became the third largest nuclear power in the world (Kimball 2014). In order to prevent nuclear proliferation, under the *1994 Budapest Memorandum*, Ukraine agreed to transfer all of its nuclear weapons to Russia (*Council on Foreign Relations* 1994).

In the early 1990s, the Crimean Peninsula became “an arena for the duel between Kyiv and Moscow on political, economic, military, and territorial disputes” (Zaborsky 1995). Victor Zaborsky (1995) assessed Ukraine’s importance for Russia’s military-strategic interests: “Protecting Russian military-strategic interests in Southwestern and Western Europe without Ukraine would require Russian creation of a completely new military infrastructure, which is extremely costly and may not be adequate for Russia’s aspirations in the region. That is why Russia is very sensitive to the loss of Ukraine as a military-strategic area, and makes attempts to maintain its strategic presence in the Black Sea and control the port of Sevastopol as a key naval base for the Russian Black Sea Fleet.” (Zaborsky 1995).

In the early 1990s, ownership of the former Soviet Black Sea Fleet was still in question between the two states, but Russia claimed large part of it. For the lease of the Sevastopol port for own part of the fleet, Russia had to pay Ukraine \$100 million a year (Svyatets 2016: 164). Long disputes about the ownership of the former Soviet Black Sea Fleet led to a 1995 interim agreement between the two states, according to which 82 percent of the fleet was recognised as Russian, and the rest of the vessels were left for Ukraine. But it was agreed that Russia would pay most of the rent in the form of energy supplies and debt relief (Erlanger 1995). Linking the lease of the Sevastopol port to the gas trade indicates the interconnection of political and economic issues when discussing gas deals between Russia and Ukraine. It took the parties another two years to resolve the remaining issues, which eventually led to the signing in 1997 of three agreements regulating the status of the Black Sea Fleet. Under the new agreement, most of the warships (81.7 percent) remained with Russia, which in return paid Ukraine \$526 million in compensation. The lease of the Crimean naval facilities to the Russian part of the fleet for \$97 million annually was also agreed by the parties. According to the agreements, Russia was permitted to deploy a maximum of 25,000 troops, 132 armored combat vehicles and 24 artillery pieces at its military facilities in Crimea (Kimball 2014). The disclosure of this agreement of a political nature was important to help the reader understand its relation to the future development of relations between Russia and Ukraine.

In 1998, Ukrainian national oil and gas company Naftogaz took control of gas relations with Russia. It was a step forward in changing the mode of gas trade between the two states. The sides agreed on linking prices for imported gas to transit tariffs. The transit of Russian gas to Europe through Ukraine was compensated with gas supplied to Ukraine for domestic consumption (Gustafson 2020: 331). Table 9 shows the average gas prices offered by Russia to Ukraine in comparison with the prices it offered to Europe and the CIS/Baltics between 1998 and 2005.

Table 9. Average gas prices offered by Russia to Ukraine, Europe and the CIS/Baltics between 1998 and 2005 (\$/mcm).

Source: Pirani 2007: 29.

	1998	1999	2000	2001	2002	2003	2004	2005
Average export prices to Europe (including duties and customs charges)	38	46	103.2	120.1	105.9	134.1	139.6	192.5
Average export prices to the CIS/Baltics (including taxes and duties)	28	34	53.3	48.3	53.2	49.8	54.2	60.7
Export prices to Ukraine	50	50	50	50	50	50	50	50

According to table 9, in the period from 1998 to 1999, Ukraine was offered inflated prices for gas, but in 2000 the situation changed in its favour, while the proposed price remained unchanged. The price of \$50/mcm for 26-28 bcm/year was roughly equivalent to the Transit Tariff paid by Gazprom to Ukraine in 1998-2005, which was \$1.094/mcm/100 km (Pirani 2007: 29). This barter system continued into the mid-2000s, after which the parties agreed to switch their gas trading to a financial system (direct payments) to prevent lack of transparency and the resulting scope for corruption (Dempsey 2005, Pirani 2009: 2). In an effort to shift from a barter system to a financial one, as noted by Ukrainian energy analyst Ivan Poltavets (2005), Ukraine intended to build its relations with Russia on a much more pragmatic basis, namely to achieve transparency and eliminate the political approach in gas deals (Poltavets quoted by Dempsey 2005). Russia's intention to switch to a financial system was caused by the interruptions in gas transit through Ukraine to Europe and Gazprom's demand to increase Ukrainian import prices to European netback levels. The sides agreed on a financial system in 2006, but prices for Ukraine did not increase to European netback levels (Pirani 2009: 2).

Prior to the commissioning of the NS pipeline in 2012, Ukraine had a crucial status as a transit state, ensuring the transit of 80 percent of Russian gas destined for Europe. This status gave Ukraine bargaining power helping it to achieve certain concessions on gas pricing terms in its relations with Russia (Yegorov & Wirl 2009, Goldthau & Sitter 2015: 72, Trachuk 2016: 149-152). Managed by Ukrtransgas, a subsidiary of Naftogaz, this gas transit system held a monopolist position in the transportation of Russian gas to Europe, which made Ukraine politically significant in Russia's relations with Europe.

In 2002, Russia proposed the creation of an international consortium to operate Ukrainian transit system. The major argument it presented for this consortium was to enhance the reliability of the gas transit promised by Russia, and to secure investments in upgrading Ukrainian transit system. It must, however, also be recognised that had it achieved this international control over the gas transit system, Russia would have been able to wield considerable control over this strategically important Ukrainian infrastructure. A triangle was offered in the operation of the proposed consortium, involving Russian Gazprom, Ukrainian Naftogaz and German E.ON Ruhrgas, with the role of Gazprom to dominate (Gnedina & Emerson 2009: 6). Germany's involvement in the proposed consortium was triggered by the close partnership between Vladimir Putin and Gerhard Schröder (Socor 2009) to secure Schröder's support to Putin. Yet, despite long negotiations, in June 2005, Russia's attempts to create an international consortium to control Ukrainian transit system failed (Stern 2006: 4, Socor 2009). Ukraine refused to hand over this important role to Russia. Elena Gnedina and Michael Emerson (2009) believe that the creation of the consortium failed because "the parties never achieved a compromise on the structure of the consortium. Ukraine was afraid of Gazprom taking full control of the GTS [gas transit system], not least with the help of Ruhrgas. The EU, which could have provided an external guarantee against such a takeover, did not play any role." (Gnedina & Emerson 2009: 6). The refusal from the consortium led to increased pressure on Ukraine and Gazprom's demands that Ukraine pay higher gas prices (Pirani et al. 2009: 7, Gustafson 2020: 339). Yet, Ukraine became one of the major importers of Russian gas. In 2007, Gazprom's natural gas exports to Ukraine were the highest (59.2 bcm) among the CIS and Baltic states, with a huge difference from the rest (*Gazprom* 2007: 63). Pirani (2007) compares Ukraine's high gas demand (73 bcm in 2005) with that of Japan, Italy, Saudi Arabia and the entire African continent (Pirani 2007: 11).

The movement towards geopolitical confrontation between Russia and Ukraine began in 2005 after the Orange Revolution in Ukraine, which brought the pro-Western government of Viktor Yushchenko to power (Stern 2006: 3, Pirani 2007: 23, Gustafson 2020: 338-339). This period coincided with a rapid rise in world oil prices, on which gas prices in Europe generally depended. Accordingly, by the end of 2005, European border prices were three to four times the level then paid by Ukraine (Gustafson 2020: 339). Gazprom was in a position to increase gas prices for countries "whose governments sought to distance themselves from Moscow politically" (Pirani et al. 2009: 7). Ukraine's westward shift diminished the value that Russia could gain from supplying it with subsidised gas, which resulted in a reassessment of Russia's gas policy towards Ukraine. As a result, Russia demanded that Ukraine pay full market price (Yegorov & Wirl 2009, Gustafson 2020: 338-339). In response to Russian pressure to increase gas prices, the new Ukrainian government, taking

advantage of its position as the main transit country for Russian gas to Europe, demanded an increase in transit tariffs.

Disagreements over gas prices between Russia and Ukraine led to the cessation of supplies to Ukrainian consumers in the winter of 2006. In order to meet its own needs, Ukraine withdrew a certain volume of gas transported through its transit system to European consumers of Gazprom. With this action, the gas dispute took on a European dimension (Gnedina & Emerson 2009: 3). The dispute culminated on January 1, 2009 with Gazprom cutting off gas supplies to Ukraine, which had not paid its debts (Parfitt 2009, Gnedina & Emerson 2009: 1). This in return again led to “unsanctioned offtakes” of transit gas by Ukraine, which Russia regarded as “theft.” As a result, Russian gas exports to Europe were suspended for 15 days. In this difficult situation for the EU, Russia and Ukraine blamed each other (Gnedina & Emerson 2009: 1, Svyatets 2016: 113, Gustafson 2020: 330-331). Ukrainian Naftogaz denied it was siphoning off gas, but at the same time admitted it was withdrawing 21 mcm of gas a day to maintain the necessary pressure in its pipeline network to ensure daily transit shipments of about 300 mcm to Europe (Parfitt 2009).

The 2009 gas crisis had serious negative consequences for the EU. Eastern European members (especially Bulgaria, Romania and Slovakia) and the Balkans were hit hardest by the supply disruptions resulting from the “gas war” (Pirani et al. 2009: 49-53, Gustafson 2020: 340). In the aftermath of the January 2009 crisis, the EC warned that the reputation of both Russia and Ukraine as reliable partners was at stake and dispatched a “fact-finding mission” to Moscow and Kyiv (EC 2009). But the initiative was not very successful. Pirani (2012) argued that the “gas war” between Russia and Ukraine emphasised the “limitations of international governance mechanisms”, and ultimately the gas industry and EU member states were left on their own to find a way out of the crisis (Pirani et al. 2009: 49-53, Pirani 2012:181-183). Gnedina and Emerson (2009) describe the state of the then EU-Ukraine-Russia energy relations as a “lack of trust, a state of insecurity caused by a high degree of interdependence and an excessive politicisation of the energy trade” (Gnedina & Emerson 2009: 4).

The gas supply and transit agreements signed between Gazprom and Naftogaz in January 2009 marked a turning point in gas relations between the two states. Under the new contract terms, annual intergovernmental and opaque gas deals gave way to predictable long-term commercial relations based on market mechanisms with greater transparency (IHS Markit 2009, Pirani et al. 2009: 8, Eyl-Mazzege 2018). The new conditions were promising for ensuring the energy security of Ukraine and the EU. But Ukraine’s economy was unable to afford the high take-or-pay gas prices stipulated in

these agreements. The gas transit tariffs demanded by Ukraine did not, however, bring the expected benefits, since the transit volumes were below contracted provisions. The commissioning of the NS pipeline exacerbated the transit issues between Russia and Ukraine, leading to disputes over the terms of the signed contract (Eyl-Mazzega 2018).

Under Russian-backed President Viktor Yanukovich, who succeeded Yushchenko, Ukraine and Russia achieved some flexibility and consensus on political issues (Harding 2010), as well as interim gas pricing (Eyl-Mazzega 2018). The accumulated gas debts of Ukraine were used by Russia to win political and economic concessions on the part of Ukraine, including the acquisition of its industrial enterprises (Goldthau & Sitter 2015: 72, Gustafson 2020: 331). While the disputes between Gazprom and Naftogaz could be attributed to purely commercial considerations (e.g. price increases to offset low profits due to falling demand), these disputes were taking place in the shadow of rocky political relations between Moscow and Kyiv (Goldthau & Sitter 2015: 72). Russia's 2010 lease extension of the Sevastopol naval base, linked to a 30 percent discount on gas prices for Ukraine (Harding 2010, *BBC News* 2010) points to the presence of political-economic linkages in Russian-Ukrainian negotiations, with the bargaining power in the hands of Russia. Pirani (2012) noted the predominance of political factors in the debate between Russia and Ukraine but believed that the main cause of the conflict was not political. The author noted that the gas disputes between the two states were perceived by major energy companies in business terms. The main European customers of Gazprom, such as E.ON Ruhrgas and ENI, viewed these disputes as a "failure of Ukrainian transit", and hoped that Gazprom, their contractual partner would solve this issue (Pirani 2012: 183-185). Abdelal (2020) also considered that the main responsibility for the gas crisis laid on Ukraine, and that the conflicting relationship between Russia and Ukraine prevented the Ukrainian transit system from being reliable (Rawi Abdelal. Harvard Business School. Author's interview. May 7, 2020).

At the same time, Ukraine's gas transit infrastructure became increasingly technically outdated. Metz (2021) notes that the Ukrainian transit infrastructure, which has been in operation for almost 50 years, is in urgent need of modernisation: "Much needs to be done here, especially with regard to climate-damaging methane leaks. It is estimated that at least \$3 billion are needed to keep the Ukrainian transit system operational." (Andreas Metz. German Eastern Business Association. Author's interview. March 18, 2021). The need to modernise the Ukrainian transit infrastructure was also identified in the course of the secondary research (e.g. Gira 2010: 2, Barnes 2017: 4, Hecking & Weiser 2017: 12, Gotev 2021). This technical point of view, along with security of supply considerations, once served as an argument in favour of building the NS pipeline network projects.

9.2. The 2014 Ukrainian Crisis

9.2.1. Political View

The internal crisis in Ukraine began in November 2013, when President Yanukovich refused to proceed with the EU Association Agreement. This agreement was supposed to serve the integration of the Ukrainian economy into the European economic system (Fisher 2014, Svyatets 2016: 149), which would partially lead the country away from Russia's political and economic influence. Yanukovich admitted that his decision to withdraw from the agreement with the EU was taken under Russian pressure and he explained this by the "necessity to improve considerably trade and economic relations with Russia and the CIS countries" (Yanukovich quoted by Svyatets 2016: 149-150). However, Yanukovich's decision to withdraw from the EU agreement led to mass protests in Ukraine, which resulted in an internal crisis that divided the country into two lines – pro-European and pro-Russian. Germany supported the expansion of Ukraine's ties with the EU. German Foreign Affairs Minister Guido Westerwelle joined the protest movement in Kyiv in December 2013 (*Der Spiegel* 2013, Rettman 2013), who stated: "We are not indifferent to the fate of Ukraine ... You can see from these demonstrations in the streets that the hearts of the people of Ukraine beat for the European Union.... This is a profoundly European matter that we are observing in Ukraine." (Westerwelle quoted by Rettman 2013).

However, peaceful demonstrations quickly escalated into an armed conflict between pro-Russian and pro-European forces within the country (Fisher 2014, Svyatets 2016: 150). Kandiyoti (2015) notes: "Intense external pressures from East and West have combined with endemic domestic rivalries within Ukraine, to transform the country into a proxy battleground between the West and Russia." (Kandiyoti 2015: 3-5). Trenin (2018) discussed this rivalry using the example of German-Russian relations. The author argues that even before the 2014 Ukrainian crisis, there was a battle between Germany and Russia for influence over Ukraine and that Russia's attempt to keep Ukraine in its orbit by integrating it into the Eurasian Economic Union irritated Germany. As the author noted, Moscow, in turn, accused Berlin of being complicit in Brussels' refusal to discuss with Russia the terms of the Association Agreement with Ukraine proposed by the EU (Trenin 2018: 3).

The internal crisis (also known as the Maidan revolution) resulted in the overthrow of President Yanukovich and his government. The regime change in Ukraine in 2014, leading the country's integration with the West, coupled with deferred payments by Naftogaz, strained relations between Ukraine and Russia (Eyl-Mazzega 2018). The long-standing tensions between the two states escalated

into military conflict with Russia's annexation of Crimea, the seizure of parts of the two eastern provinces by Russian-backed Ukrainian separatists, and the battle for access to the Sea of Azov (Gustafson 2020: 345-346). Eventually, the interdependent relationship between Russia and Ukraine failed to prevent political conflict between them. This can be explained from a realist perspective that in conditions of asymmetric interdependence, the stronger party cannot be deterred from using force against the other side should their strategic interests collide (Tanious 2019).

Putin (2014) interpreted the annexation of Crimea to be the will of the population living there, the majority of whom according to him, were Russians. At the same time, the Russian President touched upon geopolitical issues, expressing Russia's dissatisfaction with Ukraine's desire to join NATO: "What would this have meant for Crimea and Sevastopol in the future? It would have meant that NATO's navy would be right there in this city of Russia's military glory, and this would create not an illusory but a perfectly real threat to the whole of southern Russia." (Putin quoted by *The Washington Post* 2014). Addressing both Ukraine and Russia, Putin noted: "Crimea is our common historical legacy and a very important factor in regional stability. And this strategic territory should be part of a strong and stable sovereignty, which today can only be Russian." (Putin quoted by *The Washington Post* 2014). These statements highlight the geopolitical motives behind Russia's annexation of Crimea and its assertive stance.

The strategic geographical position of Ukraine, close to Europe, distinguishes its significance for Russia compared to other post-Soviet countries. It can be argued that while the conflict of 2014 seriously affected gas relations between Russia and Ukraine, gas was not the reason for the conflict between the two. The change in Russia's policy towards Ukraine had a geopolitical background, linked to a turn of Ukraine's policy towards the West. In the event of the Ukraine joining NATO, Sevastopol, one of the most important seaports for Russia would remain on the territory of the Western alliance. As noted by Svyatets (2016), the former Soviet Black Sea Fleet was also considered a "matter of national pride" for the Russian population, most of whom were dissatisfied with the fleet's presence on Ukrainian territory (Svyatets 2016: 164).

Michael Kofman et al. (2017) argue: "Russia's operation to annex Crimea represented decisive and competent use of military force in pursuit of political ends." (Kofman et al. 2017: 73). Diesen (2018) assesses Russia's military power as an essential component in strengthening its economic links and encouraging "gravitation towards the Eurasian heartland". The author believed that Russia's presence in Crimea could lead to the restoration of its position in the Black Sea and, accordingly, could

reconstitute its historical economic and military linkages in Southwest Eurasia (Diesen 2018: 10). The Black Sea is located at an important crossroads in Eurasia and has both military and economic advantages for Russia. It could act as an economic corridor strengthening Russia's bindings with the Mediterranean (Diesen 2018: 75, Schmidt 2020). Crimea was able to ensure Russia's leadership in the strategic transport corridor. Moreover, Crimea is rich in natural resources (Svyatets 2016: 164, Diesen 2018: 75), with an annual production potential of 5–6 bcm of gas and 1 million tons of oil (Svyatets 2016: 164). Prior to the 2014 crisis, Ukraine was negotiating with China the construction of a deep-water mega-port in Crimea in order to provide a commercial link between Ukraine and the Silk Road project (Hornby 2013, Izmirli 2014). This indicates the importance of Crimea as a seaport. Therefore, the shift of control over Crimea to Russia could have provided it with significant geopolitical and geoeconomic benefits.

Zaslavskiy (2020) argued that in addition to the economic aspects of the conflict between Russia and Ukraine, the conflict reflected a major “signal” transmitted by Russia to the entire post-Soviet space that Russia still can use its military capabilities to advance its political interests if the situation so requires and that the post-Soviet states should not make “mistakes” when choosing between the West and Russia (Ilya Zaslavskiy. Free Russia Foundation. Author's interview. April 18, 2020). Meister (2014) viewed Russia's military actions in Ukraine as tied to its competitive position vis-à-vis the EU. Looking at the crisis in terms of the balance of power in the international system, the author argued that with military operations in Ukraine, “Putin made it clear that he proudly and manifestly rejects the post-Cold War order in Europe” (Meister 2014: 4-5).

After the collapse of the USSR, Russia supported the separatist regimes with its alleged “peace-keeping mission” in several post-Soviet countries, including Moldova, Azerbaijan and Georgia. But the 2014 Ukrainian crisis was the first to attract large attention from the Western community. The crisis led to a sharp deterioration in the general political attitude towards Russia on the part of the West. The united stand of the West led to a decline in Russia's political reputation on the world stage. Especially in the first years after the military intervention, Russia's political image deteriorated significantly (Szabo 2015: 129). Zhihui Ma et al. (2019) present a realist explanation of Western attitudes towards the crisis. The authors consider the EU's interests in intervening in this crisis as important to protect its own “military security and regional stability”, and the interests of the United States in protecting its own interests in Europe (Ma et al. 2019: 397). Many aspects distinguish the 2014 Ukrainian crisis from other military conflicts involving Russia in the post-Soviet space. These aspects may include a more assertive Russian foreign policy and its challenge to the existing geopolitical order, reinforced by its already entrenched economic power; Ukraine's geopolitical

importance for the European security; and the threat of a “domino effect” of the Russian military aggression with the possibility of going beyond the borders of Ukraine.

The major negative outcome for Russia from the 2014 Ukrainian crisis was the sudden loss of Russian influence in one of its most important neighbouring states – Ukraine, which Kofman et al. (2017) view as a geopolitical defeat (Kofman et al. 2017: 1). Referring to the 2014 crisis, Trenin (2018) expressed confidence that Ukraine would be a potential adversary of Russia, even if it remained outside NATO, and it could take decades to reconcile relations between the two (Trenin 2018: 8). For Ukraine, this conflict paved the way for its greater Western direction. The Western direction is visible in many aspects of the Ukrainian gas sector, from the structure of gas supplies to the development of a regulatory framework. Ukraine’s accession to *the Energy Community Treaty* (IP/10/1173) (EC 2010) linked it to the major principles of the EU legislation that must be followed (Pirani & Yafimava 2016: 10, 19, 41, Gustafson 2020: 325-328, 347).

The 2014 Ukrainian crisis changed the “Russia first” approach in German foreign policy (Adomeit 2015: 3), and the determining factor in German-Russian relations became the situation around Ukraine (*IE RAS* 2016: 65). Any kind of special relationship between Germany and Russia was opposed by the ruling bloc of the CDU/CSU and even the SPD (Kwiatkowska-Drożdż et al. 2014: 3, Trenin 2018: 6), which typically advocated for good relations with Russia. The German Government, led by Chancellor Merkel assumed a leading role in the EU in solving the conflict between Russia and Ukraine (Fix 2015, Szabo 2015: 129, Adomeit 2015: 31, Trenin 2018: 3-4), which is evidenced by numerous official meetings, speeches, interviews and articles. Germany’s policy towards Russia, which had been dominated by economic interests for more than two decades, was shifting towards a more critical approach (Meister 2014: 1), “albeit in tandem with cautious diplomatic moves” (Kwiatkowska-Drożdż et al. 2014: 2).

The composition of the German political platform differed in its criticisms of Russia (Kwiatkowska-Drożdż et al. 2014: 2, Kirsten Westphal. SWP. Author’s interview. June 17, 2020). The critiques raised by various political actors were influenced by their general stance towards relations with Russia. CDU/CSU politicians, including Angela Merkel, generally took a hard line on Russia, while the SPD tended towards a softer stance, cautiously critical of Russia. Szabo (2020) believed that at that time there were no large political groups in Germany that were truly hardline on Russia, while the Greens were the only party that was very critical of Russia (Stephen Szabo. Political scientist. Author’s interview. July 1, 2020).

Sherstobitov (2020) argued that politically, the 2014 crisis marked a turning point in relations between Germany and Russia, rationalising them and giving Germany more trump cards in its relations with Russia (Aleksandr Sherstobitov. Political scientist. Author's interview. August 31, 2020). Considering the close relations between the Russian government and Gazprom, the conflict politicised commercial relations. Diesen (2020) believed that by politicising energy relations, Germany was providing Ukraine leverage over Russia (Glenn Diesen. HSE University. Author's interview. August 6, 2020).

The change in Germany's attitude towards Russia caused by the 2014 Ukrainian crisis cannot be considered only at the national level, but rather should be assessed in light of its solidarity with NATO and the EU. In an interview for this study, Stern (2020) shared his opinion that the German government was "required" to support Ukraine during the 2014 crisis, which he attributed to the solidarity principles with its Western allies and EU members (Jonathan Stern. OIES. Author's interview. April 24, 2020). One political response to Russia's military operations in Ukraine was the exclusion of Russia's membership from the G8 club, with the efforts of Germany and other involved G7 countries. NATO suspended all practical civilian and military cooperation with Russia, while keeping the political dialogue with Russia open (*NATO* 2014). Some EU members, such as Poland and the Baltic states, distinguished by their more prominent anti-Russian views, influenced the attitude of the entire EU towards Russia. The role of the European Council, the EC and the EP, whose attitude towards Russia Trenin (2018) considers "skeptical", is also important here (Trenin 2018: 6-7). Westphal (2014) observed mistrust on the part of both the EU and Russia, which she called a "severe crisis of confidence". The author noted the predominance of geopolitics and securitisation which at the time trumped economic interests in the relations between the two (Westphal 2014 (b): 1-2).

Gustafson (2020) believes that the 2014 Ukrainian crisis led to an increased role for the EU in German-Russian gas relations (Thane Gustafson. Georgetown University. Author's interview. April 8, 2020). This increased role was reflected in certain changes in the EU legal framework discussed in Chapter 6. Patrahau and Van Geuns (2021) take a similar view, considering that the creation of the Energy Union (COM/2015/080), the main objectives of which are to ensure a fully integrated energy market, security and diversification of supply, and solidarity among members (*EC* 2015-2021), was a response to growing tensions between the EU and Russia caused by the 2014 Ukrainian crisis (Patrahau & Van Geuns 2021: 18).

The impact of the worsening political relations was more evident in Germany than elsewhere, due to the close gas relationship with Russia. The major challenge faced by Germany in its gas relations with Russia was political opposition contradicting economic benefits. Westphal (2014) viewed (inter)dependent relations between Germany and Russia as problematic in this regard, since they were not part of the solution, but rather constrained the room for political maneuver for Germany (Westphal 2014 (b): 1-2).

9.2.2. Commercial View

During the 2014 crisis period, gas relations between Russia and Ukraine, surrounded by geopolitical and geoeconomic uncertainty, served as a battleground for a much more serious military conflict. The lack of a pragmatic solution undermined the image of the parties' mutual cooperation in gas supplies to Europe. This, in turn, in the short term affected Russia's image as a reliable gas supplier (Westphal 2014 (b): 1-2, Oldag Caspar. Germanwatch. Author's interview. February 11, 2021) and led to an increased emphasis on energy security in EU energy strategy. As the conflict escalated, EU legislation aimed at limiting the role of gas imports from Russia was applied more strictly, with some authors considering the tightening going beyond economic rationality (e.g. Gnedina & Emerson 2009: 4, Kandiyoti 2015: 3). Diversification of supply sources became the subject of European policy debate (Dickel et al. 2014: 2, Bergschneider 2017: 68, Azakov 2018: 2, Kinyakin et al. 2018: 170).

The Ukrainian crisis of 2014 led to a major change in the geopolitical environment under which Germany and Russia cooperated on natural gas (Westphal 2014 (b): 1) and, accordingly, had a major impact on the securitisation of gas relations between the EU and Russia (Kirsten Westphal. SWP. Author's interview. June 17, 2020). Transit of Russian gas to the EU became a "hostage" to the conflict between Russia and Ukraine (Naumenko 2018: 4), but nevertheless remained in effect. However, the conflict risked the loss of a sense of safety associated with the transit of Russian gas via Ukraine (Pirani & Yafimava 2016: 15).

Russia stepped up its strategy to diversify transit routes in order to reduce its dependence on the Ukrainian transit infrastructure (Pirani & Yafimava 2016: 21, Naumenko 2018: 4-7, Gustafson 2020: 324-325, 346). From a security point of view, the Ukrainian transit infrastructure, being the largest export route for Russian gas supplies to Europe, increased Ukraine's bargaining power in its commercial relations with Russia and influenced Russia's commercial relations with Europe. By

bypassing Ukraine, Russia not only secured its own gas transit, but also significantly reduced Ukraine's strategic role in its dealings with Europe. The Yamal-Europe pipeline, carrying Russian gas to Germany via Belarus and Poland, and the NS pipeline, directly connecting Russia with Germany, circumvent Ukraine. Transit flows through Ukraine accounted for more than 25 percent of Russian pipeline gas supplies to the EU and the United Kingdom in 2021, significantly down from over 60 percent in 2009 (IEA 2022 (b)). Abdelal (2020) believes that even if the gas crisis was not the main reason for the launch of the NS2 pipeline, the complicated relationship between Russia and Ukraine created an additional logic for the availability of alternative transit routes. "From a business point of view, it makes sense for an exporter to diversify its transit infrastructure" (Rawi Abdelal. Harvard Business School. Author's interview. May 7, 2020). Commercially, a direct connection between Germany and Russia was supposed to reduce the threat of failure in the energy cooperation between them. This connection could have allowed Russia to bypass not only Ukraine, but also the states of Central-Eastern Europe. The weakening of the strategic role of the transit states in the delivery of Russian gas to Europe, in theory, was supposed not to interfere with the security of supplies to Germany. Yet, politically, the weakening of the role of the transit states was leading to the strengthening of Russia's bargaining position in its negotiations with Europe.

Meanwhile, the "gas war" between Ukraine and Russia escalated with their disagreements over price issues. The then Russian Energy Minister Alexander Novak (2014) called Ukraine's request for \$268.5 per thousand cubic meters of gas "totally unreasonable" (Novak quoted by *Gazprom* 2014). Naftogaz filed a lawsuit with the Arbitration Institute of the Stockholm Chamber of Commerce against Gazprom (*Reuters* 2014 (a)). At the time of this lawsuit, according to Gazprom CEO Alexey Miller (2014), the total volume of unpaid gas supplied to Ukraine amounted to 11.5 bcm (Miller quoted by *Gazprom* 2014). After four years of arbitration proceedings between Naftogaz and Gazprom, in February 2018, the Stockholm Arbitration ruled in favour of Naftogaz on most of the significant issues over the existing gas transit contract. Naftogaz's claim for compensation of \$4.63 billion for Gazprom's failure to deliver the agreed volumes of gas for transit was also supported by the Stockholm Arbitration. Following the results of the two proceedings, Gazprom pledged to pay Naftogaz \$2.56 billion adjusted to a \$2.1 billion set-off for gas delivered in 2014. This court decision became another turning point in relations between the two countries. Gazprom declared its decision to terminate its gas contracts with Ukraine and reduce future gas flows through the country (*Naftogaz Group* 2018, Naumenko 2018: 7, *Deutsche Welle* 2018 (b)).

Long before the court decision, in November 2015, direct purchase of Russian gas by Ukraine stopped (Gustafson 2020: 349, Westphal 2021: 6). Ukraine's gas needs were supplied in two ways: by its own

domestic production and reverse flows from Western Europe, mainly consisting of Russian gas, resold by European traders. According to Naftogaz CEO Andriy Kobolev (2015), the purchase of gas by Naftogaz from a German utility was cheaper than from Gazprom (Kobolev quoted by *Reuters* 2015 (a)). Reverse flows to Ukraine, launched in 2012 under the agreement with Germany's RWE, had a diversified structure. A wide range of private players, including European giants, such as ENGIE and Equinor entered the Ukrainian gas market (Gustafson 2020: 349), which increased competition. According to Gustafson (2020), the gas needs of the two separatist provinces in the eastern area of Ukraine – Donetsk and Luhansk – were being supplied directly by Russia, without compensation (Gustafson 2020: 326).

In light of the Ukrainian crisis of 2014, the NS2 project faced strong resistance. The clash between the commercial and strategic nature of NS2, not only in terms of dependence on Russia, but also in terms of undermining Ukraine's role as a transit state, became a subject of debate (Stephen Szabo. Political scientist. Author's interview. July 1, 2020). The NS2 project was perceived as a "competitor" to the Ukrainian gas transmission system, through which most Russian gas supplies were delivered to Europe. Opponents considered the capacity of the NS2 pipeline to be unnecessary and economically unfeasible and connected its implementation to the goal of eliminating Ukraine's role as a transit state for Russian gas imports to Europe. Naftogaz CEO Andriy Kobolev (2015) believed: "If Nord Stream-2 operates, Ukraine will be dead as a transit land for Russian gas." (Kobolev quoted by *Reuters* 2015 (a)). Cleutinx (2020) expressed a different opinion: "NS2 would cost Ukraine about \$2 billion in lost annual transit revenues, which was judged a sufficient argument by those opposing the project forgetting that this 'addiction' to transit revenues reinforce the financial dependence of Ukraine from Russia." (Christian Cleutinx. International expert on energy security. Author's interview. May 19, 2020). Bergschneider (2020) opined that the geopolitical situation was used by various groups as an argument to put pressure on the NS2 pipeline. At the same time, he noted, Russia also did not "produce" political arguments in its favour, which increased resistance to the project (Claus Bergschneider. Former Gazprom Germania Chief Representative. Author's interview. September 3, 2020).

Given the fact of the NS2 pipeline agreement after the 2014 Ukrainian crisis to improve the security of energy supplies, it can be argued that the 2014 Ukrainian crisis paradoxically strengthened gas relations between Germany and Russia (Christian Cleutinx. International expert on energy security. Author's interview. May 19, 2020, German fossil-fuel industry representative. Author's interview. January 25, 2021). The uncertainty of the reliability of the Ukrainian route made the direct route from

Russia seem more reliable to German companies and officials (Stephen Szabo. Political scientist. Author's interview. July 1, 2020). Stern (2020) believed that commercially, most gas communities in Germany and Europe (with the exception of the EP and Poland) regarded Ukraine as corrupt and unreliable. They saw the limitation of its transit role in the supply of Russian gas as a positive step. But despite this, the German Government led by Angela Merkel, saw maintaining transit through Ukraine as important, which could be attributed to Germany's solidarity principles with its Western allies and EU members (Jonathan Stern. OIES. Author's interview. April 24, 2020).

Analysing the impact of the 2014 Ukrainian crisis at the European level, Ma et al. (2019) conclude that the crisis was not only a turning point in gas relations between the EU and Russia, but also opened a new stage in this cooperation. Arguing for the violation of the "fragile balance of political power" between the EU and Russia, the authors characterise the politicisation of gas relations: "When fluctuations in the political environment alter the interest composition of the country (region) or the integrated organization, the consideration of political interests will be raised to a higher level." (Ma et al. 2019: 397). Bardt and Schaefer (2018) believe that the shift towards politicisation in gas relations between Russia and its respective European partners made it difficult for them to be predictable on the basis of purely economic or commercial decisions (Bardt & Schaefer 2018: 4). Russian gas supplies to the EU were reduced between October 2014 and March 2015 without explanation. A study conducted by Bros et al. (2017) argues that this decision by Russia was based on strategic considerations related to the reverse flow from the EU to Ukraine (Bros et al. 2017: 38). The deterioration in political relations raised fears that Russia could use gas supplies as a political tool to advance its strategic interests.

It is important to distinguish the political impact of the 2014 Ukrainian crisis on German-Russian relations from its commercial impact. Politically, the crisis chilled relations between Russia and the entire EU, leading security aspects to dominate. Commercially, the 2014 Ukrainian crisis influenced the gas supply infrastructure model between the parties, leading to the foundation of the NS2 gas pipeline project. In this regard, the studied case of geopolitical conflict can be described as a prime example of the impact of politics on energy trade.

9.2.3. Economic Leverage – Mild Design

In response to the 2014 Ukrainian crisis, in March 2014, the United States, the EU, Norway, Australia, Canada, Japan, New Zealand and Ukraine agreed on a wide range of sanctions against Russia, which

have been renewed and regularly extended. As argued by Abdelal and Bros (2020): “Sanctions are useful when diplomacy is not sufficient but force is too costly” (Abdelal & Bros 2020: 114), as in the case of the 2014 Ukrainian crisis. In sanctioning Russia, the Western powers took a common stance. Germany played a particularly important role, “despite the heavy cost to German economic interests” (Stephen Szabo. Political scientist. Author’s interview. July 1, 2020). Trenin (2018) is confident that Germany is not just a participating country in the collective Western sanctions against Russia, but rather the one which “leads and coordinates this policy within the EU” (Trenin 2018: 4). Szabo (2015) also assigns a significant role to Germany in sanctions against Russia (Szabo 2015: 129). Germany used economic leverage to counter Russia’s military aggression against Ukraine. The geoeconomic nature of Germany’s foreign policy is important to understand (Stephen Szabo. Political scientist. Author’s interview. July 1, 2020). After Russia’s military invasion of Ukraine in 2014, German Federal Ministry of Economic Affairs and Energy stopped a deal for building a combat training facility worth about €120 million between the arms company Rheinmetall and the Russian army (*Deutsche Welle* 2014).

According to Timofeev (2018), economic sanctions create conditions in which economic damage caused by sanctions makes it infeasible to maintain the old political course and forces the target state to make concessions to the requirements of the initiating party. In terms of the linkage between economic sanctions and military operations, economic sanctions pursue two goals, the first one of which is undermining or limiting the military potential of the target country, reducing the economic base for the production of certain weapons and military equipment; and the second is prevention of hostilities or deterrence of the country -addressee from offensive actions. The author believes that in both cases, economic sanctions pursue containment measures. The initiators of sanctions proceed from the deterrence hypothesis, implying that economic sanctions can either send a signal or make the price of an offensive policy unacceptable (Timofeev 2018: 29-31).

Economic sanctions against Russia, imposed in response to the 2014 Ukrainian crisis, included: limited access to EU primary and secondary capital markets for certain Russian banks and companies; an export and import ban on trade in arms; an export ban for dual-use goods for military use or military end users in Russia; and restricted access to certain sensitive technologies and services that can be used for oil production and exploration. The sanctions were renewed every six months (*Council of the EU* 2022 (a) & (b)). Under the latest restrictions before the 2022 Ukrainian crisis, 185 individuals and 48 entities whose actions undermined Ukraine’s territorial integrity, sovereignty and independence were subjected to having their assets frozen and travel bans. Additionally, EU operators were prohibited from providing funds to those being sanctioned. EU sanctions against Russia also

included restrictions on economic relations with Crimea and Sevastopol, Ukrainian territory that came under Russian control as a result of the annexation (*Council of the EU* 2022 (a)). Since the military sector is fueled by the fruits of the economy, Western sanctions were designed ultimately to affect Russia's military power and hinder its military actions in Ukraine. In his interview with *Die Zeit* in April 2014, then German Foreign Affairs Minister Steinmeier (2014) noted that the three-stage sanctions imposed on Russia left the tightening options open but did not block a return to conversation with Russia (Steinmeier quoted by Lau 2014).

The impact of financial sanctions on the Russian economy was immediate and significant (Fjaertoft & Overland 2015: 66). The imposed sanctions made it difficult for Russian oil operators to obtain long-term financing and access to complex technologies, as well as loans for investment (Krutikhin 2017: 2). Diesen (2018) considers that the sanctions revealed Russia's "vulnerabilities of excessive economic dependence" on the West (Diesen 2018: 2). The high dependence on foreign technologies, equipment, components and materials in a number of segments of the Russian fuel and energy complex necessitated solving the problem of import substitution (ES-2035. Nr.1523-p). Given the fact that the major world powers held a unified position on Russia, Russia's ability to resist the sanctions was very limited.

Russia, in turn, in 2014 introduced countersanctions with further extensions against the states sanctioning it. In February 2021, Russian Foreign Affairs Minister Sergey Lavrov declared the readiness of Russia to sever relations with the EU if the sanctions imposed against Russia persist (Lavrov quoted by *Reuters* 2021 (c), Lavrov quoted by *Deutsche Welle* 2021 (e)). Miriam Solera Ureña (2015) believed that the close economic interdependence that existed between Germany and Russia strongly prevented Russia from cutting off gas supplies in response to EU sanctions (Ureña 2015: 55).

Despite the political and economic difficulties caused by the 2014 crisis sanctions, Igbal Guliyev (2020), a professor at MGIMO believed that the Russian market was able to maintain its attractiveness for German companies. The interviewee argued that German companies were keen to maintain their positions in the lucrative Russian market by influencing politicians and calling for a softening of the sanctions regime (Igbal Guliyev. MGIMO. Author's interview. May 7, 2020). It can be argued that the Ukrainian crisis of 2014 did not have a material impact on German-Russian gas relations. This point of view was supported by many of the respondents interviewed for this study, including Christof van Agt, Thane Gustafson, Simon Schulte and others. Existing projects were unaffected, but new projects and new investments, such as the Yamal LNG project, were affected by the sanctions (Jeffrey

Mankoff. CSIS. Author's interview. April 9, 2020). The production of natural gas was subject to the sanctions regime if the explored field located in Russia was an associated gas field leading to oil production (Abdelal & Bros 2020: 123). Although the sanctions did not target natural gas trade and companies dealing in natural gas, the individual and financial sanctions, as well as the sanctions on dual-use and deep-sea offshore oil production, had some indirect impact on the Russian gas business (Bros et al. 2017: 35). Russell (2021) and a German fossil fuel industry representative (2021) interviewed for this study believed that the reason why the EU exempted gas producers from the imposed sanctions was its dependence on Russian gas imports (Russell 2021: 5, German fossil fuel industry representative. Author's interview. January 25, 2021).

The economic sanctions imposed on Russia did not have only a one-sided effect, but in turn, influenced the economies linked with the Russian economy. In a 2017 report, issued by the United Nations General Assembly, the impact of the sanctions on EU countries was estimated at \$3.2 billion a month (*United Nations General Assembly* 2017: 11). The German economy felt the impact of the sanctions tangibly, which was due to close economic ties with Russia. At the time of the imposition of sanctions, more than 6,000 German firms were represented in Russia, and trade with Russia secured around 350,000 jobs (*t-online* 2014, Adomeit 2015: 16).

Despite the economic consequences, German business groups, including key lobbying groups that promoted the development of commercial relations with Russia, supported the government's sanctions policy (*Reuters* 2014 (b)), but a different view did exist. For example, *Ost-Ausschuss der Deutschen Wirtschaft* considered economic sanctions against Russia unreasonable and counterproductive (*t-online* 2014). In contrast, Markus Felsner, the Chairman of *Osteuropaverein der Deutschen Wirtschaft*, representing around 300 companies with business interests in Russia and Eurasia supported the sanctions: "Of course, there are complaints. Nevertheless, most of the enterprises support the sanctions. Our entrepreneurs do not need closeness to the Kremlin but a predictable legal framework for investments, and on that score Russia already some time ago went in the wrong direction." (Felsner quoted by Adomeit 2015: 16-17). Trenin (2018) objected to the solidarity of German business with the government on the issue of sanctions against Russia: "Merkel got the segment of the German business community most closely involved in economic cooperation with Russia to reluctantly acquiesce to the need to pressure Moscow to change its foreign policy." (Trenin 2018: 4). Adomeit (2015), in turn, expressed the views of some opponents who believed that German support for sanctions against Russia was the result of the German government concession to U.S. pressure (Adomeit 2015: 16).

It can be argued that the sanctions imposed against Russia as a result of the 2014 Ukrainian crisis did not bring the expected political outcome. Although the sanctions affected the Russian economy, they failed to change Russia's strategic behaviour towards Ukraine. Despite the ceasefire agreement between Russia and Ukraine, the ceasefire along the contact line was fragile. Positive progress for that time, albeit small, was achieved with the disengagement of troops and the withdrawal of heavy weapons (*Die Bundeskanzlerin* 2020 (b)). Max Fisher (2014) considered economic measures insufficient to counter Russian military actions: "The US and Europe are doing a lot to punish Putin for annexing Crimea and invading eastern Ukraine. But they are not doing anything that will physically *force* Putin to turn back his tanks, or return Crimea to Ukraine, which means that if he wants to keep invading Ukraine, despite those punishments, he can and will." (Fisher 2014). The ineffectiveness of the sanctions can be attributed to Russia's political culture of pursuing power, which makes it resistant to economic pressure when it comes to its political ambitions. This assumption allows putting forward the argument that for economic instruments not to fail as a pressure tool, their value must be equated to those of political benefits they counteract. Accordingly, this study suggests that the economic leverage used to counter Russian military actions in the wake of the 2014 Ukrainian crisis was insignificant or targeted at the wrong actors to achieve the desired outcome.

9.2.4. "Melting Ice"

In his analysis, Högselius (2013) refers to different geopolitical conflicts with the involvement of Moscow, and concludes that, despite the negative events related to the employment of military force, "neither gas companies nor governments were in the end prepared to let political and ideological considerations jeopardise a technically and economically sound project" (Högselius 2013: 184). The argument put forward by Högselius (2013) can also be applied to German-Russian gas relations in the wake of the 2014 Ukrainian crisis. Despite the tough stance and support for sanctions against Russia, Germany expressed its political support for the NS2 project. The country also blocked various attempts to employ military means as part of a new containment strategy against Russia. For instance, on the eve of the NATO summit in 2014, Germany opposed plans to establish a permanent military presence in Central and Eastern Europe (Kundnani 2019: 66). It can be argued that this position was partially based on the importance of trade relations with Russia for the German economy, since strong economic ties require stable relations politically as well.

Despite harsh criticism, Germany pursued its geoeconomic interests in securing access to Russia's energy supply. The perceived need to maintain cooperation with Russia was reflected in many speeches made by German politicians. Chancellor Merkel (2014) expressed confidence in the need to continue a close partnership between Germany and Russia in the medium and long term (Merkel quoted by *Die Bundeskanzlerin* 2014). As noted by Albrecht Meier (2015), in March 2014, at the height of the 2014 Ukrainian crisis, Merkel met with representatives of the four largest business associations in Munich to facilitate high-level trade negotiations between Germany and Russia (Meier 2015). Foreign Minister Steinmeier (2015) estimated Russia's exclusion from the G8 as a "necessary step" but "not a goal in itself". Steinmeier emphasised Russia's important role in the global political arena: "A look at the world shows that we need Russia as a constructive partner in a number of conflicts." (Steinmeier quoted by *Reuters* 2015 (b)). Sigmar Gabriel (2014), Vice-Chancellor, Minister for Economic Affairs and Energy and the SPD leader, was critical of Russia's military actions in Ukraine, but stated that there was no alternative to Russian gas imports for Germany (Gabriel quoted by *Die Zeit* 2014, Gabriel quoted by *EurActiv* 2014). These statements reflected Germany's pragmatic approach to the situation and its interest in maintaining economic cooperation with Russia. This pragmatic approach can be partially attributed to Germany's desire to keep Russia integrated into European markets in order to achieve its relative predictability, which is discussed in Chapter 8.

In mid-2015, geopolitical relations between the EU and Russia entered a relatively stable post-crisis stage. As tensions in Ukraine eased, the political conflict between the EU and Russia softened (Ma et al. 2019: 399) and energy cooperation continued to develop. Since the spring of 2015, relations between Germany and Russia at different levels of cooperation, which were not directly related to the issues of Crimea and the conflict in eastern Ukraine, began to gradually recover (*IE RAS* 2016: 65). After a three-year break, for the first time since 2012, a full-scale session of the Petersburg Dialogue took place in Potsdam (Germany) in October 2015 (*Petersburger Dialog* 2015). Several intergovernmental bilateral meetings were held at the ministerial level to strengthen commercial cooperation between the two states (*President of Russia* 2015, *IE RAS* 2016: 67-72). Despite the internal economic crisis in Russia, the implementation of significant joint projects continued in several areas, such as energy and transport engineering, electrical and automotive industries. Rainer Seele, President of the German-Russian Chamber of Commerce stated: "We do not intend to give up the market to China or other countries. The strong position of German business is due not only to the quality, innovation and engineering excellence, but also high mobility. Therefore, I am confident that we will maintain our position in the market and significantly expand our presence." (Seele quoted by *IE RAS* 2016: 67-74).

The restoration of business relations was reflected in several significant agreements inked between Germany and Russia. The previously mentioned 2015 asset swap between Gazprom and Wintershall, a plant for the production and maintenance of gas turbines, launched by the German concern Siemens in June 2015 in the industrial zone “Gorelovo” in the Leningrad region of Russia, and a plant for the production of gasoline engines, launched in September 2015 in Kaluga (Russia) by the German concern Volkswagen are vivid examples of the restoration of business relations between the two countries. At the top of these relations remained the agreement on the NS2 project, signed in September 2015 with the participation of Gazprom and two leading German companies – E.ON and Wintershall. Chancellor Merkel’s (2020) emphasis on the project as an economic one (e.g. Merkel quoted by *Die Bundeskanzlerin* 2020 (a), Merkel quoted by *President of Russia* 2020) restricted political opposition to the NS2 pipeline.

Ultimately, the tough political line towards Russia led to a breakthrough: on December 30, 2019, the parties reached a new contractual agreement providing for the transit of Russian gas through the territory of Ukraine in the period 2020-2024. The agreement provides for the transit of 65 bcm of gas in 2020 and 40 bcm per year in 2021-2024 out of the total volume of 225 bcm of gas (*Gazprom* 2019, *Ukraine Crisis Media Center* 2019), with the terms of shipment of additional volumes if necessary (*Naftogaz Group* 2021). Ukrainian President Volodymyr Zelensky (2019) estimated Ukraine’s expected benefit from this agreement at over \$7 billion (Zelensky quoted by Gotev 2019, Zelensky quoted by *Deutsche Welle* 2019 (b)). As the first major trade agreement between Russia and Ukraine since the outbreak of the military conflict in 2014, this agreement signaled a thaw in relations between the two. Another deal, designed to strengthen Ukraine’s role as a transit state for Russian gas supplies to Europe was a compromise agreement signed between Germany and the United States (*German Federal Foreign Office* 2021), which is discussed in Chapter 7. From a political point of view, these commercial efforts can be assessed as intentions to restore economic interdependence between Russia and Ukraine in order to alleviate the political crisis between them.

9.3. The 2022 Ukrainian Crisis

9.3.1. The War

In the period after the Russian annexation of Crimea, relations between Russia and Ukraine remained hostile. Crimea remained annexed, and the situation in eastern Ukraine was unstable. But in the fall

of 2021, relations between the two states showed signs of a greater escalation, caused by the concentration of Russian troops on the Russian-Ukrainian border (Harding 2021, Roth 2021). A NATO report declared between 75,000 and 100,000 Russian soldiers near the border with Ukraine, raising fears of a Russian attack (*Der Spiegel* 2021). This situation heightened “diplomatic crisis” between Russia and the West, increasing U.S. and European fears of a Russian invasion of Ukraine (*Al Jazeera* 2022). Ukraine’s borders with four NATO members (Poland, Slovakia, Hungary and Romania) made it possible to assess a military conflict on its territory as a possible threat to NATO and overall European security. Referring to the collective defence pact among NATO allies, U.S. President Joe Biden (2022) expressed the readiness of Washington to fulfill its “sacred obligation” to its allies (Biden quoted by *Al Jazeera* 2022). German Chancellor Olaf Scholz (2021) emphasised his government’s commitment to protecting Europe’s borders: “The inviolability of borders is one of the very important foundations of peace in Europe and that we will all do everything together to ensure that this inviolability actually remains intact.” (Scholz quoted by Boffey & Rankin 2021). In turn, Kremlin spokesman Dmitry Peskov (2021) called the Western reaction “hysteria” that was “artificially whipped up”. With a hint of NATO operations in the Black Sea, Peskov stated: “we are being accused of some kind of unusual military activity on our territory by those who have brought in their armed forces from overseas.” (Peskov quoted by *Radio Free Europe/Radio Liberty* 2021 (d)). At the same time, Russia called any attempts by the United States or NATO to strengthen Ukraine’s military as a “red line” (*Radio Free Europe/Radio Liberty* 2021 (d)) and demanded to “officially disavow” Ukraine’s entry into NATO (Herszenhorn 2021, Roth 2021).

Russia was warned by the G7 group and EU states about new economic sanctions, including the cancellation of the NS2 project, in the event of an invasion of Ukraine (Aarup 2021, Wintour 2021 (b), Boffey & Rankin 2021, *Frankfurter Allgemeine Zeitung* 2021). German Foreign Affairs Minister Annalena Baerbock (2021): “In the event of further escalation this gas pipeline could not come into service.” (Baerbock quoted by Wintour 2021 (b)). Despite calls from other EU members to completely shut down the NS2 project, Germany postponed its certification until at least the second half of 2022 (Boffey & Rankin 2021), a sign of hope for a reconciliation. Emphasising the country’s strong commitment to renewable energy, Chancellor Scholz (2021) hinted at the expected decline in demand for Russian gas (Scholz quoted by Von der Burchard 2021), and stressed Germany’s responsibility for ensuring gas transit through Ukraine (Scholz quoted by *Frankfurter Allgemeine Zeitung* 2021).

Although a smell of war was in the air, there was still hope for a diplomatic solution. U.S. Secretary of Defense Lloyd Austin (2022) assessed a new crisis as “not inevitable”: “There’s no reason that this

situation has to devolve into conflict. He [Putin] can choose to de-escalate” (Austin quoted by *Al Jazeera* 2022). At the same time, in view of a possible invasion, Biden ordered an additional 2,000 U.S.-based troops to the European members of NATO “to temporarily bolster U.S. and allied defensive positions” (*PBS News Hour* 2022). The United States and the United Kingdom supplied Ukraine with weapons, mostly handguns, ammunition and anti-tank weapons. Under the *1994 Budapest Memorandum*, in order to prevent nuclear proliferation, Ukraine agreed to transfer all of its nuclear weapons to Russia (*Council on Foreign Relations* 1994). In return, under the Memorandum, Russia, the United States, and the United Kingdom offered security assurances and commitments to respect Ukraine’s sovereignty and territorial integrity. These commitments were important.

In the early stages of the 2022 Ukrainian crisis, still before the Russian invasion, Germany refused to be involved in arms supplies to Ukraine due to its fears that such supplies could heighten tensions and hamper negotiations. Baerbock: “We are prepared to have a serious dialogue with Russia to defuse the highly dangerous situation right now because diplomacy is the only viable way.” (Baerbock quoted by *Deutsche Welle* 2022). Alternative aid was provided in the form of a complete field hospital along with necessary training (*Reuters* 2022 (a)). In its export policy, Germany distinguishes the export of military equipment from others, classifying it as a sensitive area. The export of weapons from Germany is accompanied by strict rules and a highly restrictive licensing policy. “Decisions on licences for exports of military equipment are primarily based on foreign and security policy considerations, and not on commercial or labour-market interests.” Decision criteria differ between the EU, NATO and NATO-equivalent states, including Australia, Japan, New Zealand and Switzerland on the one hand, and “third countries” on the other. The export of military weapons to “third countries” is subject to very strict guidelines and is not licensed unless the interests of German foreign or security policy argue in its favour in a particular case (*BMWi* n.d. (h)). According to government reporting, in 2020 and the first half of 2021, Germany approved 97 military exports to Ukraine, totaling €5.2 million (\$5.8 million), mostly including sidearms, diving equipment, and communications devices (*Deutsche Welle* 2022).

Since Ukraine’s military power was substantially smaller than that of Russia, a military solution to the conflict was fraught with serious consequences for the former. This appears to be the main argument that encouraged Germany to support a diplomatic solution to the conflict. For instance, Baerbock (2022) opined that shifting the military balance in favour of Ukraine through arms transfers was unrealistic (Baerbock quoted by *Reuters* 2022 (a)). Marcel Dirsus (2022) of the Institute for Security Policy at Kiel University expressed a similar view, considering that while the arms delivery would be a strong show of support, Ukraine’s prospects against a stronger and better-equipped foe

would still be bleak (Dirusus quoted by *Deutsche Welle* 2022). These arguments were based on the hope for a peaceful settlement of the conflict.

However, the fears of a Russian invasion came true. On February 21, 2022, Russia officially recognised two self-proclaimed states in the Donbas in eastern Ukraine – the Donetsk People’s Republic and the Lugansk People’s Republic, and Russian tanks entered eastern Ukraine at night in what was called a “peace-keeping mission” (Dettmer 2022, Kiely & Farley 2022). This meant that the long-standing geopolitical confrontation between Russia and Ukraine had entered a new, even more sinister stage.

In his speech on the night of February 23-24, 2022, President of Ukraine Volodymyr Zelensky pointed to the concentration of about 200,000 Russian troops on the border with Ukraine, warning of the possibility of a large war on the European continent. Stressing the importance of Ukraine’s security for the security of all of Europe, Zelensky noted Ukraine’s readiness for any format of negotiations with Russia to ensure security and peace (Address by the President of Ukraine. February 24, 2022).

Despite constant denial of a possible invasion (e.g. Isachenkov 2021, *Pravda.Ru* 2021, Qi 2021, Herszenhorn 2022), on the night of February 23-24, 2022, Russia launched a massive invasion of Ukraine. The Russian Government declared this a “special military operation in accordance with Article 51, Chapter 7 of the UN Charter, with the authorisation of the Federation Council of Russia and pursuant to the treaties of friendship, cooperation and mutual assistance signed with the Donetsk People’s Republic and the Lugansk People’s Republic and ratified by parliament” (Address by the President of Russia. February 24, 2022; *Ministry of Foreign Affairs of the Russian Federation* 2022). The invasion was called by the Russian President Vladimir Putin the “demilitarisation and denazification of Ukraine” to help people living in the Donbas. Considering NATO as an instrument of U.S. foreign policy, Putin noted the illegal military incursions of Western powers in several countries and stressed the danger of moving NATO’s military infrastructure closer to Russia. The Russian President also warned other countries about the consequences in case of interference: “Russia’s response will be immediate and will lead you to consequences that you have never experienced in your history. We are ready for any development of events. All necessary decisions have been made.” (Address by the President of Russia. February 24, 2022 (translated by the author)). Behind this statement was the possibility of using nuclear weapons and catastrophic consequences for humanity.

Figure 10 shows Russian military strikes on Ukrainian territory during the invasion, as declared by the Ukrainian Ministry of Internal Affairs. Russian ground forces entered Ukraine through its borders with Russia and Belarus. President of Belarus Alexander Lukashenko (2022) denied the involvement of Belarusian troops in the invasion, while noting that “if it is necessary for Belarus and Russia, they will” (Lukashenko quoted by *News.Ru* 2022 (translated by the author)). The war unleashed by Russia endangered not only the eastern part of Ukraine, but its entire territory. Ukraine’s besieged cities were subjected to heavy bombing due to their fierce resistance (Farrer & Harding 2022).



Figure 10. Russian military strikes across Ukraine, February 24, 2022.

Source: Ministry of Internal Affairs of Ukraine (adopted from Karmanau et al. (2022)).

During the war, the Russian armed forces were accused of committing numerous war crimes and crimes against humanity in Ukraine, which were documented by authorities. Within just a few weeks, the war had killed thousands of civilians and forced millions, mostly women and children, to leave Ukraine for neighbouring Europe. The Russian invasion led to the rupture of diplomatic relations between Ukraine and Russia (President Zelensky quoted by *Ukrinform* 2022).

The catastrophic scale of the war was exacerbated by Ukraine’s reliance on nuclear power. During the course of the war, Ukrainian authorities claimed that the government had lost control of the decommissioned Chernobyl nuclear power plant (*Radio Free Europe/Radio Liberty* 2022, Karmanau et al. 2022, *BBC News* 2022 (a)). “If as a result of the occupiers’ artillery strikes the nuclear waste storage facility is destroyed, the radioactive dust may cover the territories of Ukraine, Belarus and

the EU countries,” stated Anton Herashchenko, Ukrainian Interior Ministry Adviser (Herashchenko quoted by *Radio Free Europe/Radio Liberty* 2022). On March 4, 2022, Ukrainian Foreign Affairs Minister Dmytro Kuleba (2022) announced a fire at the Zaporizhzhia Nuclear Power Plant, the largest in Europe, urging Russia to cease the fire in order to avoid catastrophic consequences (Dmytro Kuleba on *Twitter* 2022). As reported by the International Atomic Energy Agency, essential safety systems at the plant were not affected and therefore no reported changes in radiation levels were recorded (Stallard & Gill 2022).

From a political point of view, the Russian invasion of Ukraine posed a threat to the existing geopolitical order. This invasion not only threatened the sovereignty of Ukraine, but also sent a signal to the whole world that Russia would not hesitate to use its military force to protect its geopolitical interests. This would mean that states with weaker military capabilities, at least the post-Soviet countries, would have to accommodate Russia’s geopolitical interests in their foreign policies. Chancellor Scholz (2022) opined: “Putin really intends to change something in the geography of Europe.” (Scholz quoted by *ARD Tagesschau* 2022 (a)). The war made the NATO alliance more attractive for security purposes. In Sweden and Finland, which are militarily neutral, NATO membership became the subject of intense debate (Gebauer & Neukirch 2022, Wintour 2022). Stephen Walt (2022) explains this intention by the balance-of-threat theory and sees as a tipping point an altered view of Russian intentions, when “Putin chose to go to war” (Walt 2022). Russia warned of the “military and political consequences” of Sweden and Finland joining NATO, when Russia would have to “rebalance the situation” (*BBC News* 2022 (b)). Ukraine’s entry into NATO was not an issue of consideration, as it was believed that this would exacerbate the conflict, provoking World War III, but joining the EU would provide the country with some security. Ukraine submitted its application for EU membership, which was still pending at the time of the dissertation submission. It is worth noting that during the war, Russia managed to establish a land corridor between Crimea and the Donbas (*APA Group* 2022) and the Russian navy established a distant blockade of Ukraine’s Black Sea coast, thereby isolating Ukraine from international maritime trade (*Ministry of Defence of the United Kingdom on Twitter* 2022).

Russia’s invasion of Ukraine is widely condemned globally, with Western powers playing a leading role. Many states (including Germany) aided Ukraine in weapons to resist Russia’s armed aggression and provided humanitarian assistance. The 2022 Ukrainian crisis is a critical juncture in political relations between Germany and Russia and a decisive factor in the termination of gas relations between them.

9.3.2. Economic Leverage – Hard Design

Russia's 2022 invasion of Ukraine resulted in severe economic sanctions imposed by over 30 countries (*The White House* 2022 (a)) targeting Russia's financial, energy, transport, technology and other sectors (*EC* 2022 (d) & (e)). "These actions are specifically designed to impose immediate costs and disrupt and degrade future economic activity, isolate Russia from international finance and commerce, and degrade the Kremlin's future ability to project power." (*U.S. Department of the Treasury* 2022). The scale and cost of these sanctions go far beyond those imposed as a result of the 2014 crisis. The sanctions imposed as a result of the 2022 crisis were of such a scale it was predicted they would be able to weaken one of the most powerful world economies. Managing Director of the International Monetary Fund Kristalina Georgieva (2022) assessed the impact of the sanctions on the Russian economy would be "quite severe" and expected a "deep recession" in Russia (Georgieva quoted by *TASS* 2022 (g)). Sanctions have also been imposed on Belarus for its supporting role in the invasion, aiming to hit its most important sectors and individuals supporting Russia's military actions in Ukraine (*EC* 2022 (f)).

Germany's major economic response to Russia was the halt of the NS2 pipeline certification process. Certification is an obligatory element of pipeline commissioning, without which NS2 could not be put into operation. After continued support and repeated claims that NS2 was an economic project, Germany took open action against the project for the first time. The sanctions imposed by the United States against Nord Stream 2 AG and its leadership led the company to cancel contracts with staff, explaining this by the geopolitical situation (*TASS* 2022 (b)).

The impact of the punitive measures on the Russian energy business became visible. German financial backers of the NS2 pipeline, Wintershall and Uniper, decided to write off the NS2 project financing and not to advance or implement any additional projects in Russia (*Wintershall Dea AG* 2022, *ARD Tagesschau* 2022 (b)). Shell announced its intention to exit its joint ventures with Gazprom and related entities, including the NS2 project. In addition to the funding for up to 10 percent of the NS2 project, Shell had 27.5 percent stake in the Sakhalin-2 liquefied natural gas facility, 50 percent stake in the Salym Petroleum Development and 50 percent stake in the Gydan energy venture. At the end of 2021, Shell's non-current assets in these enterprises in Russia were about \$3 billion. The decision to withdraw from the relevant joint ventures and entities was supposed to "impact the book value of Shell's Russia assets and lead to impairments" (*Shell* 2022). The same trend was followed by OMV, which announced reconsideration of its involvement in the NS2 pipeline project, and its intention to

withdraw from negotiations with Gazprom on the purchase of a 24.98 percent stake in the project to develop the Achimov deposits of the Urengoy field (TASS 2022 (d)).

Among the multinational companies suspending the sale of their products and commercial activities in Russia, such large enterprises as Deutsche Bank, Apple, Exxon, Boeing, Jaguar, Land Rover, Ford, Volvo, Renault, Porsche, Nike, Nestle and others. The list of companies terminating activities and services in Russia is very long and has contributed to the isolation of the Russian economy from Europe and North America. The impact of restrictions on the export of Western technologies and industrial products to Russia will be visible after a certain period of time, but financial sanctions had an immediate effect. The sanctions, designed to isolate the Russian economy from the global financial system, sever economic ties, and dump tens of billions of dollars worth of investments, quickly plunged the Ruble to historic lows and raised the possibility of a serious recession in Russia (Farrer & Harding 2022, *The White House* 2022 (a)). The largest Russian lender Sberbank was forced to leave the European market, as its subsidiaries faced large cash outflows (Harding et al. 2022). Russian financial institutions had been conducting about \$46 billion in foreign exchange transactions worldwide, 80 percent of which were in U.S. dollars. The disruption of these transactions as a result of sanctions leads to the deprivation of Russian financial institutions of benefits (*U.S. Department of the Treasury* 2022). The sanctions led to the blocking of a significant part of Russia's financial reserves. Russian Finance Minister Anton Siluanov (2022) announced the loss of access to Russia's \$300 billion worth of gold reserves (Siluanov quoted by TASS 2022 (e), Siluanov quoted by *Haqqin.az* 2022 (a)). According to the EC, as a result of the financial sanctions, 70 percent of the Russian banking system (in assets), government and key state-owned companies, will no longer be able to refinance in the EU capital markets (*EC* 2022 (d)). The exclusion of key Russian banks from the Society for Worldwide Interbank Financial Telecommunications (SWIFT) (*EC* 2022 (g)), the world's most important financial messaging system, alienated Russian financial institutions from the global financial system. Russia called the sanctions "illegitimate" and warned that Russian nuclear forces were put on high alert in response (*The Economist* 2022).

The sanctions were extended beyond purely economic measures to other areas such as maintenance, media, information and sport related activities. For example, the world's two biggest airplane manufacturers – Boeing and Airbus suspended technical support for their airplanes in Russia and the supply of spare parts to the country (*Reuters* 2022 (b) & (c)). This was intended to prevent Russia from maintaining its air fleet to international standards (*EC* 2022 (d)). Moreover, the EU closed its airspace to all Russian-owned, registered or controlled aircraft, including private jets of oligarchs (*EC* 2022 (e)), and suspended visa-free travel for Russian diplomats. YouTube blocked access to Russian

government-funded media. YouTube, Google, and Meta (owner of Facebook, Instagram and WhatsApp) disabled monetisation for bloggers and restricted access to content in Russia (TASS 2022 (f)). International Olympic Committee called on all international sports federations to reschedule or cancel their events planned in Russia or Belarus (IOC 2022). FIFA and the Union of European Football Associations (UEFA) suspended the Russian national team and Russian clubs from participating in all competitions until further notice (Sky Sports 2022). The sanctions were extended to a large number of individuals, including Russian oligarchs and government representatives, being linked to the conflict. Russian disinformers such as *Russia Today* and *Sputnik* have also been sanctioned. Restrictive measures for actions “undermining or threatening the territorial integrity, sovereignty and independence of Ukraine” at the time of the dissertation submission were applied to 1158 individuals and 98 entities of Russia (EC 2022 (d)).

Energy sector sanctions introduced between February and May 2022 included a ban on the “sale, supply, transfer or export to Russia of specific goods and technologies in oil refining”, as well as “restrictions on the provision of related services” (EC 2022 (h)). Moreover, the EU has dramatically reduced gas imports from Russia and reoriented its energy supply strategy to break its energy dependence on Russia.

9.3.3. “Political” Gas

The escalation of the conflict in the fall of 2021 coincided with the increase in gas prices in Europe. Jillian Ambrose (2021) attributed high gas prices in Europe to the global reduction in gas supplies, exacerbated by a slowdown in Russian gas exports to the continent amid “stalled” NS2 negotiations (Ambrose 2021). Germany’s closure of the three out of its six remaining nuclear power plants in December 2021 contributed to a reduction in the availability of cheaper electricity (Appunn 2022).

In October 2021, Russia stopped its gas deliveries to the spot market, fulfilling only LTC obligations (Schlecht & Hirth 2022). Gazprom suspended the pumping of gas directly to Europe via the Yamal-Europe pipeline on December 21, 2021 (IEA 2022 (b)), explaining this by the lack of requests from European consumers. At the time of completing this study, direct gas delivery to Germany via this pipeline, after a brief resumption, again ceased (Reuters 2022 (d)). The cessation of flows through the Yamal-Europe pipeline resulted in a record gas price of almost €181 per megawatt hour (MWh). Gazprom refused to sell additional gas volumes to Europe beyond those stipulated in LTCs, while

allowing its own storage facilities in Europe to fall to unusually low levels. Reduced Russian pipeline flows, as well as low storage levels and adverse weather conditions contributed to strong upward pressure on European hub prices (*IEA 2022 (b)*). Peskov (2021) called this situation “purely commercial” and denied its linkage with NS2’s approval (Peskov quoted by Wilson & Hume 2021). According to Gazprom’s Deputy Chairman Famil Sadygov (2021), in 2021, a record net income of more than RUB 2 trillion (\$27 billion) was supposed with payment of dividends over RUB 45 per share (Sadygov quoted by Wilson & Hume 2021). For comparison, in 2020 Gazprom paid dividends in the amount of RUB 12.55 per share (Wilson & Hume 2021).

IEA head Fatih Birol (2022) argued that Russia was able to increase gas deliveries to Europe by at least one-third and accused Russia of creating an energy crisis: “We believe there are strong elements of tightness in the European gas market due to Russia’s behavior. I would note that today’s low Russian gas flows to Europe coincide with heightened geopolitical tensions over Ukraine.” (Birol quoted by Sheppard et al. 2022). A supporting argument was put forward by Ingmar Schlecht & Lion Hirth (2022), who opined that Russia’s decision to completely halt spot market supplies was intended to influence European hub prices (Schlecht & Hirth 2022). In contrast, an analysis by the German Uniper showed that energy supply difficulties were caused by additional demand associated with economic recovery and a drop in LNG supplies (Appunn 2022). However, Uniper’s analysis contradicted that of the IEA (2022), according to which the energy crisis in Europe was alleviated by increased supplies from other sources, mainly from the United States, Algeria, Azerbaijan and Norway, with LNG supplies playing a leading role (*IEA 2022 (b)*).

The energy crisis, which coincided with the suspension of the NS2 gas pipeline certification, once again drew attention to the argument that NS2 was not a purely economic project for Russia, but a political lever. “Nobody is under any illusions anymore. Russia’s use of its natural gas resources as an economic and political weapon show Europe needs to act quickly to be ready to face considerable uncertainty over Russian gas supplies next winter,” opined Birol (Birol quoted by *IEA 2022 (a)*). Referring to Germany’s decision to suspend NS2 certification, Volodymyr Zelensky (2022) claimed: “It [the decision] must be irreversible and completely stop this project, which is a weapon, a weapon that is already being used against Ukraine, all of Europe” (Zelensky quoted by *Haqqin.Az 2022 (b)* (translated by the author)).

Prior to the escalation of the conflict, despite political opposition from third parties, as well as within Germany, the NS2 project enjoyed official German support. Although later than planned, the pipeline’s construction was completed successfully, which consequently reduced the resistance to its

implementation. But the escalation of the conflict in the fall of 2021, almost immediately after the completion of the pipeline construction, changed the German approach to the NS2 project, bringing it into line with the U.S. point of view. One example of this convergence of approaches was observed at a February 7, 2022 press conference with participation of U.S. President Joe Biden and German Chancellor Olaf Scholz. Biden warned of stopping the NS2 project in the event of Russia's invasion of Ukraine: "We will bring an end to it... I promise you, we'll be able to do it." (Biden quoted by *The White House* 2022 (b)). This statement was supported by Scholz: "We are acting together, we are absolutely united, and we will not be taking different steps." (Scholz quoted by *The White House* 2022 (b)). Minister Habeck (2022) expressed a similar view: "It is very important that Europe and the United States act together against Russia." (Habeck quoted by *ARD Tagesschau* 2022 (a)). These statements testify to the solidarity of the two Western allies in their approaches to the NS2 project and, accordingly, to Russia.

The suspension of the NS2 certification process caused a strong reaction in Russia. Moscow warned of "irreversible damage to Russian-German relations" that could be caused by Berlin's decision to suspend the NS2 project. Considering this decision "unacceptable and mischievous from the standpoint of norms of international commercial law", Russia accused Germany of using the NS2 project as a "leverage of pressure on Russia" and of "inability to separate politics and economics". The Russian government nevertheless expressed its willingness to cooperate on the NS2 project (Russian Foreign Ministry's spokeswoman Maria Zakharova quoted by *TASS* 2022 (c)). Chairman of the State Duma Committee on Energy Pavel Zavalny (2022) regarded Germany's decision to suspend the certification process for NS2 as being influenced by the United States, when Germany was forced to make a decision against its own national interests. Referring to the fact that European companies financed 50 percent of the NS2 project, Zavalny noted the two-sided effect of its termination (Zavalny quoted by *Sputnik* 2022). Deputy Chairman of the Security Council and former President of Russia Dmitry Medvedev (2022) warned: "Well. Welcome to a new world where Europeans will soon pay €2,000 for a thousand cubic meters of gas!" (*Dmitry Medvedev on Twitter* 2022 (translated by the author)).

Russia's invasion of Ukraine exacerbated market uncertainty and price volatility. Moscow required importers to pay for gas via Ruble accounts with Gazprombank from April 1, 2022 (*President of Russia* 2022 (b)), a move adopted by major Russian gas importers such as Germany and Italy. For those who refused to comply with the new terms, including Poland, Bulgaria and Finland, the gas supply was cut off (*EurActiv* 2022). The new gas trading terms could significantly increase the reduced value of the Russian Ruble caused by economic penalties, thereby mitigating the economic

downturn in the country. Despite the war, at the time of submitting this dissertation the transit of Russian gas to Europe through Ukraine still remained in effect.

One important impact of the 2022 Ukrainian crisis was that, effective April 4, 2022, by order of the Federal Ministry of Economic Affairs and Climate Action, in accordance with § 6 of the Foreign Trade Act, the Federal Network Agency, as an independent German regulatory authority, was appointed trustee of Gazprom Germania GmbH, engaged in Russian gas exports to Germany. The reason for this was the unexplained transfer of the shareholder's shares to a company based abroad, without prior notification and examination, which is prohibited under German law. This right of the Federal Network Agency is valid until September 30, 2022 (*BNetzA* 2022).

The early stages of the 2022 Ukrainian crisis were also accompanied by historically high fuel prices in Europe (Marcus 2022, Isidore 2022). Gasoline prices in Germany hit a new record high. Diesel prices reached €2.3 per liter in March 2022 (*myLPG.eu* 2022), for the first time in history being more expensive than gasoline, despite government subsidies (Schweizer 2022). In April 2022, producer prices in Germany reached their highest-ever annual increase and energy prices as a whole increased by 87.3 percent compared to the same month of the previous year (*Reuters* 2022 (e)). Minister Habeck (2022) opined that it was the Russian invasion of Ukraine that drove up fossil energy prices as fears of energy shortages and speculation fueled the price spiral (Habeck quoted by *Handelsblatt* 2022).

Although Russian gas played a significant role in Germany's energy supply structure, the operation of the controversial NS2 gas pipeline became unrealistic in the crisis situation. NS2 came a long way, withstanding strong opposition, and after its completion, when it seemed that it was successful, the pipeline completely lost its chances of commissioning. President Steinmeier (2022) admitted that it was a mistake to support the NS2 project for so long: "My holding on to Nord Stream 2 was clearly a mistake... We held on to bridges that Russia no longer believed in and that our partners warned us about." (Steinmeier quoted by Gehrke 2022). Minister Habeck (2022) also emphasised that it would be wiser not to build the NS2 pipeline (Habeck quoted by *ARD Tagesschau* 2022 (a)). Literally a couple of days before the Russian invasion, when there was still hope for a diplomatic solution to the conflict, the suspension of the NS2 certification process received a mild assessment. At the time, Habeck (2022) opined that reassessing whether NS2 threatens security of supply "does not mean [it] is sanctioned by this step or that it can never come" (Habeck quoted by Appunn et al. 2022). Scholz (2022) also believed that at the time no one could have predicted whether the project would ever go into operation (Scholz quoted by *ARD Tagesschau* 2022 (a)). But the Russian invasion of Ukraine

had a strong geopolitical and geoeconomic impact on Russia's relations with Germany at the entire EU level.

The political and economic risks associated with the energy trade with Russia led Germany to phase out its reliance on Russian energy supplies. "With each day, indeed each hour, we are saying goodbye to Russian imports... If we get there, we will be independent of Russian coal by the autumn and nearly independent of Russian oil by the end of the year," believes Minister Habeck (Habeck quoted by *The Local* 2022). But replacing natural gas with other energy sources will be difficult to implement in the short term, which is explained by the fact that the center of Germany's energy transition is in the power sector, when dependence on natural gas is especially high in the heating and industrial sectors (Wehrmann 2022 (b)). This raises the issue of reorienting the energy supply strategy.

The Ukrainian crisis of 2022 led the EC to propose reducing gas imports from Russia by two thirds by the end of 2022, which made alternative supply options critical. The REPowerEU Plan covers €10 billion of investment in new gas infrastructure by 2030 to import sufficient LNG and pipeline gas from other suppliers (EC 2022 (i)). The situation opened up prospects for increased LNG imports to Europe, with U.S. LNG in the spotlight, which is discussed in Chapter 7. As a means of diversifying energy supply sources, the EU underlined its "strong interest and support" in increasing gas supplies from the Caspian region, with a particular focus on Azerbaijan (EC 2022 (j), Gotev 2022). Increasing gas exports to Europe requires bringing the capacity of the existing infrastructure up to the potential level of natural gas transportation. "The Southern Gas Corridor is already in operation. Now we need only to work on how to build new bridges, how to build new connections into connectors, and how to expand our presence in the European gas market," stated the President of Azerbaijan Ilham Aliyev (Aliyev quoted by the *President of the Republic of Azerbaijan* 2022). The energy crisis gave impetus to the development of new gas reserves. In an attempt to reduce dependence on Russian energy imports, Germany and the Netherlands decided to start developing a new gas field in the North Sea by 2024 (ABC News 2022). Germany also signed a declaration to deepen its energy partnership with Qatar, with a focus on hydrogen and LNG trade (Reuters 2022 (f)). In order to reduce Central Europe's dependence on Russian gas, Europe started to explore the possibility of building the Midi-Catalonia gas pipeline that would connect Spanish Catalonia with France to deliver Algerian gas and other LNG to Spain and Portugal (Haqqin.az 2022 (c)). This initiative was previously blocked by Spanish and French regulators, considering it unprofitable in the context of the rapid replacement of gas with renewable energy sources (Simon 2019 (c)). But the situation has required a revision of the project. This situation leads to the return of the former attractiveness of fossil fuel investments and the diversification of the European gas supply structure to fill the energy gap in the short term. At the

same time, the challenge of reducing dependence on Russian energy imports, in addition to an increase in alternative supplies, gives impetus to an accelerated energy transition, leading to an increase in the share of renewables in the German energy mix. In accordance with the REPowerEU Plan, the EU target for renewables in the energy mix could increase to 45 percent by 2030 (EC 2022 (i)). High fossil fuel prices contribute to the competitiveness of renewable energies.

In summary, the Ukrainian crisis of 2022 dramatically altered German-Russian gas relations. This trend extended to the EU level. Comparing the impacts of the 2014 and 2022 crises, the chapter concludes that in the former case, the situation eventually received relatively mild assessment by Germany. The difference in the perception of both crises was due to the difference in their scale and the threats they posed to Europe. Considering that the Ukrainian crisis of 2022 was of a larger and more violent nature and posed a serious threat to European security, it consequently led to tougher economic penalties against Russia. These economic penalties also included ending gas cooperation between Germany and Russia. Table 10 presents a comparative analysis of the impacts of the Ukrainian crises of 2014 and 2022 on German-Russian gas relations, and accordingly, on the results of this study.

Table 10. Comparative analysis of the impacts of the Ukrainian crises of 2014 and 2022 on German-Russian gas relations.

Crisis started	Crisis description	Impact on German-Russian gas relations	Outcome for this research
2014	Russian annexation of Crimea and takeover of parts of two eastern regions of Ukraine by Russian-backed Ukrainian separatists	<ul style="list-style-type: none"> • Heightened concerns about security of gas supply • The launch of the NS2 gas pipeline project bypassing Ukraine 	<ul style="list-style-type: none"> • IV of Hypothesis 1 – economic rationality mattered, while political opposition was inadequate. Hypothesis 1 found evidence. • IV of Hypothesis 3 – the overlap between the ultimate goals of the private sector and the government mattered, and the domestic economic group’s influence on the government’s decision to support the NS2 project was successful. Hypothesis 3 found evidence. • IV of Hypothesis 4 – what mattered was the prevalence of economic incentives for cooperation over security considerations. Interdependent relationship continued. Hypothesis 4 found evidence.
2022	Russian military invasion and its war against Ukraine	<ul style="list-style-type: none"> • High energy prices dictated by Russia • Termination of political support for the NS2 project by Germany • Refusal of German commercial companies from financing the NS2 project • Ending gas cooperation with Russia 	<ul style="list-style-type: none"> • Hypothesis 1 failed – political opposition prevailed over economic rationality. • Hypothesis 3 found evidence – commercial interests did not overlap with political goals to make private sector influence on government policy successful. • Hypothesis 4 found evidence – security considerations prevailed over economic incentives for cooperation. Interdependent relationship collapsed.

10. CONCLUSION AND FUTURE RESEARCH PROSPECTS

At the beginning of this dissertation work, the study posed a research puzzle related to the increase in gas export capacity from Russia to Germany, despite the renewable energy boom and ambitious CO₂ emissions reduction target in Germany, as well as the complex political relations between the two countries. The research question that opened this dissertation was:

Why despite Germany's energy transition and the political and economic risks associated with gas trade with Russia, did German-Russian gas relations remain stable, and even strengthen between 2009 and 2021?

But the dramatic change in the geopolitical environment as a result of the Russian invasion of Ukraine in early 2022 greatly affected economic interdependence, including gas relations between Germany and Russia. This shift raised a second important question for this study:

What was different between the Russian invasion of Ukraine in 2014, after which Germany initiated sanctions against Russia but still entered into an agreement with Russia to build the Nord Stream 2 gas pipeline, and the invasion in 2022, after which Germany ended its imports of Russian fossil fuels? Why did the firmly cemented economic interdependence between Germany and Russia collapse?

The analysis proposes to focus on the international political system and domestic economic interests as independent variables that determine gas relations between the two states. Four hypotheses were tested.

Hypothesis 1 – Economic Hypothesis:

The stronger the economic rationality underlying international trade cooperation, the more limited is the probability for trade cooperation to be thwarted by political opposition.

The theoretical expectation reflected in Hypothesis 1 is based on the assumption of an increased role of economic power in the overall global power competition (e.g. Waltz 1993: 50, Bell 2008: 330, Gilpin 2011: 81, Diesen 2018: 11, Reinhardt & Pronichkin 2018: 96). This hypothesis has a liberal nature, albeit with a slight realist tenet. The main theoretical argument put forward is that economic power is central, leading to the dominance of economic arguments over political ones. The hypothesis

has two IVs: the economic rationality of trade cooperation and the political opposition to this cooperation. In order to find support for Hypothesis 1, the study had to first determine the economic rationality of natural gas cooperation between Germany and Russia. It then had to be determined whether this economic rationality had prevailed over the complex political relations between the two states in order to overcome the strong political opposition to the NS2 project.

The main idea behind Hypothesis 1 treats Germany as a geo-economic power dominated by economic arguments in its foreign policy considerations. The centrality of economic power in German politics led the author to theorise in favour of economics over political considerations in Germany's relations with Russia. It is secure energy supply that stimulates the German economy industrially and technologically. Chapter 5 discusses the changes in the German energy balance and market structure brought about by the *Energiewende*. The decision to convert the country's existing energy production system by phasing out nuclear and coal-based power generation created a gap in Germany's energy supply for decades to come, with renewables unable to fully fill the gap. The decline in domestic gas production and the expected reduction in other gas imports made it expedient to maintain gas imports from Russia. The commercial advantages of importing Russian gas over other alternatives made Russian gas supplies profitable for the German economy. This argument is mainly discussed in Chapter 3 providing background information for this study; Chapter 5 on the *Energiewende*; and Chapter 7 presenting U.S. LNG as a competitor to Russian gas in the German gas market. Chapter 8, in turn, highlights Germany's geoeconomic power and its strong emphasis on economic aspects in its foreign policy considerations. Chapter 5 also outlines the prospects for maintaining the value of gas by "greening" it with deeper decarbonisation. This perspective presents natural gas grids as a critical infrastructure component in the energy transition. The possibility of converting renewable electricity into hydrogen, with further feeding it into the existing natural gas infrastructure could open up new prospects for the German economy. In addition to transporting energy, gas networks can also be used as a large and flexible storage system. These arguments testified in favour of the economic rationality of German-Russian gas cooperation, which prompted Germany to strengthen cooperation ties with Russia.

In search of evidence for the second aspect of Hypothesis 1, related to the predominance of economic rationality over political opposition, the study refers to Chapter 5, outlining political opposition to gas imports by green energy advocates; Chapter 6, discussing political opposition to the NS2 project within the EU as an institutional body and EU members, stemming from their different approaches to energy relations with Russia; Chapter 7, reflecting the strong political opposition to German-Russian gas relations from Germany's closest ally, the United States; and Chapter 9 on the

deterioration of political relations between Germany and Russia caused by the Ukrainian crises of 2014 and 2022.

The Ukrainian crises of 2014 and 2022 represent an important element of political opposition to German-Russian gas relations. The study found that in the case of the 2014 Ukrainian crisis, despite partial political opposition to Russian gas imports within the EU as an institutional body and Germany itself, strong opposition from the United States and some EU members, politics failed to intervene in economic relations, although politics managed to delay the construction of the NS2 pipeline. Such an outcome could have made it possible to assess German-Russian relations as prevailing on the principle of “business first” but did not. The Russian military invasion of Ukraine in early 2022 became the decisive argument against European natural gas imports from Russia. This invasion affected the whole picture of commercial relations between Germany and Russia at the EU level. Certification of the NS2 pipeline was suspended, which prevented its commissioning. The political opposition managed to terminate Germany’s gas relations with Russia as a punitive measure for the latter. Accordingly, while the first aspect of Hypothesis 1, concerning the economic rationality of German-Russian gas cooperation, found support, the second aspect of the hypothesis, related to the predominance of this economic rationality over political opposition, did not. Thus, it can be concluded that, in the end, Hypothesis 1 failed to prove itself, as the political opposition prevailed over economic rationality.

Hypothesis 2 – Geopolitical Hypothesis:

The stronger the geopolitical rivalry is in a multipolar world, the stronger the incentive will be for relatively weaker parties to join efforts to counterbalance the power of the strongest party, while rivalry between these cooperating relatively weaker parties is not excluded.

This hypothesis relies on Waltz’s (1979) view of the international system, where stability is determined by a certain distribution of power among participants, i.e. balancing (Waltz 1979: 121-132), extended to the principle of “chandelier” put forward by Brown and Ainley (2005: 98-101), which is similar to a multipolar world order. By applying a realist coalition-building approach (Schweller 2016: 1, Wohlforth 2016) to external balancing, this hypothesis advances the argument that the emergence of a new strong rival brings relatively weaker parties closer together in order to counterbalance the growing power of the strongest one.

The theoretical expectation reflected in Hypothesis 2, based on the logic of the geopolitical balance of power, is supported by the example of the Germany-Russia-China triangle described in Chapter 8. The intensity of geopolitical rivalry in a multipolar world represents the IV of this hypothesis. The international political order has been recognised as moving gradually from unipolarity, dominated by the United States, to multipolarity with multiple centers of power, with China leading the way. China's geoeconomic rise acts as an accelerator of its geopolitical interests, which are contrary to those of Europe. The expansion of strategic cooperation ties between China and Russia, which share common political views, exacerbates this situation. The main idea put forward by Hypothesis 2 stemmed from the increased economic and political power of China and the strengthening of its strategic cooperation ties with Russia, which could lead to a shift in the geopolitical balance of power in the international system. Applying to this assumption the arguments advanced by Waltz (1979) and Brown and Ainley (2005) that power imbalances between states can lead to instability (Brown and Ainley 2005: 98-101) and confrontation (Waltz 1979: 121-132), it could be in the interests of Germany, the leading European state, to balance geopolitical power in its relations with Russia and China for security reasons. Hypothesis 2 presents the NS2 project as an instrument for balancing geopolitical power in the international system. This is the case when an economic tool is used to protect national geopolitical and security interests. Given Russia's attempts to shift its policy of strategic partnership eastward with a focus on China, from a geopolitical perspective, NS2 could have served to slow the pace of rapprochement between Russia and China, keeping Russia connected to Europe for decades to come for security reasons. Thus, Germany's enhanced gas cooperation with Russia during the period covered by this study can be seen as a rational German response to the changing global balance of power, aimed at counterbalancing China's power and preventing potential Sino-Russian hegemony in Eurasia.

At the geopolitical level, the strengthening of gas relations between Germany and Russia represented the interests of Germany also for a stable neighbourhood with Russia. This logic is based on liberal principles, according to which an interdependent relationship provides stability and security between the parties involved (e.g. Park 2018: 23). However, China's balancing could not eliminate the rivalry between Germany and Russia in their interdependent relations. According to the logic of the balance of dependence, it is in the interests of a more powerful state to maintain interdependent relations in order to increase its influence over a weaker partner (Diesen 2018: 11-15). The Energiewende could have enabled Germany to dominate this interdependence. The connection between Germany and Russia via NS2 could have enabled Germany to maintain influence over the course of certain political events with the involvement of Russia through economic leverage. From a Russian perspective, enhanced cooperation with Germany could have enabled Russia to balance the growing asymmetry

in its relationship with China, while also maintaining Russia's potential for economic leverage in the European gas market. Hypothesis 2 found its support in the primary and secondary research for this study, which is mainly reflected in Chapter 8. Yet, the geopolitical aspects are considered secondary to the economic rationale, stimulating the strengthening of German-Russian gas relations prior to the Russian invasion of Ukraine in 2022.

Hypothesis 3 – Domestic Influence Hypothesis:

When the commercial interests of powerful private businesses coincide with the geopolitical or geoeconomic goals of the government, these domestic economic groups will succeed in promoting their own interests in the development of the government's international trade policy.

This hypothesis is rooted in the power of economic interest groups that can influence the government's foreign trade policy. The IV of this hypothesis is the degree of the overlap between political and commercial interests. According to Moravcsik (1993), international agreements are reached when the interests of dominant domestic groups coincide (Moravcsik 1993: 487). Applying Moravcsik's argument to the levels of government and business, the hypothesis put forward advances the argument about the overlap of the geopolitical objectives of the German government with the commercial interests of the German private gas business in achieving success in strengthening the country's cooperation with Russia. The phenomenon of influence plays an important role here. When the same instrument in international trade ensures the ultimate goal for both the state and the private sector, this overlap of interests leads to the success of domestic pressure on the government to support international trade.

A secure and affordable energy supply is an element of mutual benefit, linking the interests of the government and the private energy sector. Germany's geoeconomic feature makes it responsive to the interests of the domestic economic groups. With Hypothesis 3 it is argued that Germany's support for the NS2 project in the context of its energy transition and politically complex relations with Russia was sustained by the influence of the German private sector benefiting from Russian gas imports. With this hypothesis, the study argues that the close interrelation and developed personal ties between the government and major energy companies played a role in the official position of Germany on the NS2 project. The role and power of actors involved in German-Russian gas cooperation is described in Chapter 4. The relevant chapters of the study present arguments in support of lobbying for Russian gas imports, which, prior to the Russian invasion of Ukraine, successfully secured state support. Conversely, following the invasion, with the change in government policy towards Russia, the goals

between the government and the private sector ceased to overlap, which led to the fact that the private sector lost its influence on the government in the issue of Russian gas imports. Based on the research results, it can be concluded that Hypothesis 3 found evidence.

The original research question underlying this study found its answer in economic rationality reinforced by the domestic pressure and geopolitical factors. Germany’s intention to strengthen its gas cooperation with Russia prior to the Ukrainian crisis of 2022 had mainly economic motives. At the same time, these economic motives were underpinned by the “pressure” from domestic economic groups; geopolitical motives for keeping Russia connected to the EU for security reasons by maintaining an interdependent relationship with it, thereby slowing down the pace of Sino-Russian rapprochement and balancing the growing power of China. In accordance with the study results, the network model for the development of international trade cooperation can be illustrated as shown in Figure 11. The model describes the relationship between the government and the private sector, and their incentives to engage in international trade.

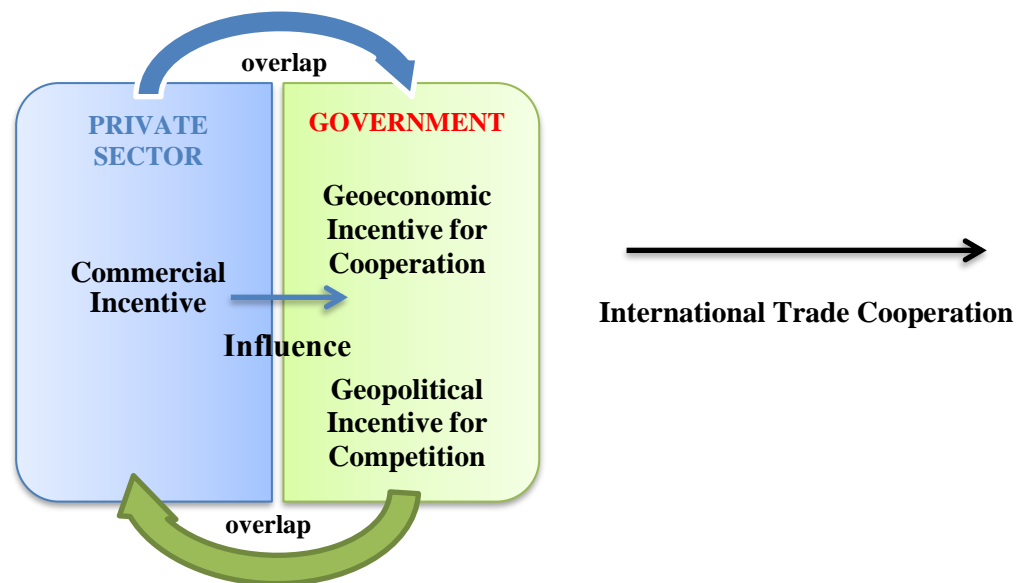


Figure 11. The network model for the development of international trade cooperation.

At this point, the researcher proceeds to explain the second research question, which is related to the collapse of the decades’ interdependence between Germany and Russia.

Hypothesis 4 – Interdependence Hypothesis:

When security fears outweigh the economic incentives for cooperation in interdependent relations, even well-cemented interdependent relations can lose their value and collapse.

Germany took a liberal approach to trade relations with Russia based on economic interdependence. In an effort to maintain close strategic cooperation ties with Russia, Germany sought to contribute to security and stability in its relations with the former. This liberal view of economic interdependence involves considering mutual interests and curbing unwanted behaviour between the parties involved. It is this interdependence that makes the parties involved extremely sensitive to the decisions of each other. The study shows that this liberal approach worked best when Russia was economically vulnerable. The strengthening of the Russian economy over time changed the dimensions of Russian foreign policy, restoring the predominance of realist principles in its relations with the West. This change reduced the effectiveness of Germany's liberal approach to trade relations with Russia.

With the Russian invasion of Ukraine in early 2022, the balance between cooperative and competing interests in German-Russian relations shifted in favour of the latter, to the point of eliminating cooperative interests. Eventually, Russia's assertive foreign policy, replaced by aggression, affected its interdependent relations with Germany, based on mutual economic interests. The study has shown that in Germany's policy towards Russia, security dimensions, as an important determinant of the realist perspective in foreign policy decision-making, prevailed over economic dimensions, considered from a realist point of view as "low politics". Thus, Hypothesis 4 found support. This makes it possible to advance the argument that in cooperation with states that follow the path of realism, the political perspective prevails over the economic one.

The study identified economic rationality as the main explanatory factor behind the strengthening of gas cooperation between Germany and Russia until the latter's invasion of Ukraine in 2022. But following the invasion, economic rationality was dominated by strong political opposition, which led to the failure of Hypothesis 1 (Economic Hypothesis). Hypothesis 2 (Geopolitical Hypothesis), based on the balance of power logic, found support in the study, however, played a secondary explanatory role. Hypothesis 3 (Domestic Influence Hypothesis) also found support in the study, and the influence by domestic economic interest groups over the government's gas import policy is another important explanatory factor behind the strengthening of gas cooperation between the two states prior to the Russian invasion of Ukraine in 2022. In turn, security considerations were identified as an explanatory factor for the collapse of the economic interdependence between Germany and Russia. Accordingly, Hypothesis 4 found support. Table 11 discusses the main results of this study.

Table 11. Discussion of findings.

Economic Hypothesis	Failed
	Main explanatory factor for strengthening gas cooperation between Germany and Russia prior to the Russian invasion of Ukraine in early 2022
Geopolitical Hypothesis	Evidenced
	Secondary explanatory factor for strengthening gas cooperation between Germany and Russia prior to the Russian invasion of Ukraine in early 2022
Domestic Influence Hypothesis	Evidenced
	Main explanatory factor for strengthening gas cooperation between Germany and Russia prior to the Russian invasion of Ukraine in early 2022
Interdependence Hypothesis	Evidenced
	Main explanatory factor for the collapse of the economic interdependence between Germany and Russia

German-Russian gas cooperation presented itself as a prime example of energy relations with a strong influence of politics over economics. In German-Russian energy relations, politics managed to prevail over economics, albeit with the role of the Ukraine factor. At the time of the dissertation submission, the geopolitical situation forced Germany to reorient its energy supply strategy with the intention of breaking its energy dependence on Russia. An undisclosed element in this study is the ongoing war in Ukraine. The Ukraine factor, including the consequences of the war, the fate of Crimea and the two separatist regions of Ukraine, the operation of the Ukrainian gas transit system, can have a significant impact on political relations between Germany and Russia, which opens up opportunities for further research. The cancellation of the NS2 project also creates many avenues for research. Of interest may be its implications for the parties involved. Another important issue for future research could be the role of green gas in Germany's energy supply.

Interviews

Name of the Interviewee	Occupation/Expertise Area at the time of the Interview	Date of the Interview
Prof. Dr. Rawi Abdelal	Harvard Business School	May 7, 2020
Christof van Agt	IEF	March 19, 2020
Ilham Akbarov	Trans-Adriatic Pipeline AG	September 23, 2020
Dr. Claus Bergschneider	Former Gazprom Germania Chief Representative	September 3, 2020
Oldag Caspar	Germanwatch e.V.	February 11, 2021; December 6, 2021
Christian Cleutinx	International expert on energy security	May 19, 2020
Prof. Dr. Glenn Diesen	HSE University	August 6, 2020
Dr. Hella Engerer	DIW	February 8, 2021
Steffen Hartmann	Nord Stream 2 AG	August 19, 2020
Prof. Dr. Andreas Goldthau	Willy Brandt School of Public Policy at the University of Erfurt	April 16, 2020
Prof. Dr. Igbal Guliyev	MGIMO	May 7, 2020
Prof. Dr. Thane Gustafson	Georgetown University	April 8, 2020
Dr. Andreas Heinrich	University of Bremen	April 15, 2020
Dr. Christian Hübner	Konrad-Adenauer-Stiftung e.V.	February 1, 2021
Jörg Kirsch	BMWi	September 2, 2020
Dr. Sandu-Daniel Kopp	BDEW	September 9, 2020
Dr. Jeffrey Mankoff	CSIS	April 9, 2020
Andreas Metz	German Eastern Business Association	March 18, 2021
Prof. Dr. Indra Overland	Norwegian Institute of International Affairs	April 27, 2020
Prof. Dr. Andris Piebalgs	Former EU Energy Commissioner	March 24, 2021

Dr. Simon Schulte	EWI	March 24, 2020
Dr. Aleksandr Sherstobitov	Political scientist	August 31, 2020
Prof. Dr. Jonathan Stern	OIES	April 24, 2020
Prof. Dr. Stephen Szabo	Political scientist	July 1, 2020
Dr. Kirsten Westphal	SWP	June 17, 2020
Ilya Zaslavskiy	Free Russia Foundation	April 18, 2020
Anonymous interview	Russian energy diplomat	June 8, 2020
Anonymous interview	Russian political scientist	August 5, 2020
Anonymous interview	Gazprom representative	August 10, 2020
Anonymous interview	German fossil fuel industry representative	January 25, 2021
Anonymous interview	European politician	March 3, 2021

Note: The opinions expressed by the interviewees are their own and do not necessarily reflect the official positions of the entities they represent.

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