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# The Energy Security Dilemma in EU-Russia Relations

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#### Introduction

The importance of energy security in international relations has increased dramatically in recent decades, especially since the 1973 Arab oil embargo against Western countries which caused a peak in oil prices and economic stagnation. Consequently, energy security has acquired increasing relevance in the national security agendas and has attracted the attention of politicians, scholars, and international organizations. In a world dominated by competition for scarce resources, in line with the realist tradition, energy has undergone a process of securitization and politicization, triggering states' concerns about their energy security and competition for energy resources. There is a strong energy dimension to the relationship between the European Union and Russia, whose energy ties date back to the age of the Russian and European empires. However, since the 2000s, EU-Russia energy relations have acquired the features of a security dilemma, where each actor seeks to reduce its dependence on the other to ensure its energy security and, in the process, endangers the energy security of the other. The reason for the energy security dilemma in EU-Russia relations lies in the strong interdependence of the two actors, especially in the field of energy, which, in light of the deteriorating political relations and divergent political positions, raises fears that a shift in interdependence towards asymmetry, in favor of one player, could provide the latter with excessive power over the other. The gas conflicts between Russia and Ukraine in 2006 and 2009, as well as the Crimean crisis in 2014, have fueled the energy security dilemma and led the two actors to develop new energy strategies to ensure their energy security. Fearing that Russia could use its energy resources, particularly natural gas, as a geopolitical weapon, the European Union prioritized reducing its dependence on Russia and pursued an ambitious strategy diversification of suppliers and resources, promoting new pipeline projects such as the Southern Gas Corridor and the Eastern Mediterranean (EastMed) and Poseidon projects to draw natural gas from other states' reserves. It has also increased its imports of liquefied natural gas (LNG) from countries such as the United States and Qatar and has embarked on an ambitious decarbonization policy to steadily reduce its dependence on hydrocarbons, most of which are imported from Russia. On its part, Russia is trying to increase the Union's dependence by hindering its diversification projects and promote its image as a reliable supplier by building pipelines that bypass problematic transit countries such as Ukraine. On the other hand, the Federation has increased its energy cooperation with the Asian markets, especially China, to compensate for the loss of revenues from European imports that its energy policy and economic stagnation might entail. However, despite the ambitious strategies to reduce interdependence, the latter persists and, in some cases, has even increased. The purpose of my thesis is to analyze the root causes of the EU-Russia energy dilemma, the strategies that the two actors have employ to end dependence and to understand why EU-Russia interdependence persists despite mutual fears of excessive vulnerability.

In the first chapter, I have underlined the importance of energy in international relations and the increasing relevance of the concept of energy security. I have analyzed the multiple understandings of energy security according to different scholars, States, and international organizations and how energy security is conceptualized by the main theoretical perspectives of International Relations. Consequently, I have adopted a realist understanding of energy security, and analyzed EU-Russia relations under the neoliberal theory of Complex Interdependence, not being limited to the idea of cooperation between states as it acknowledges the possibility for conflict and the predominance of national interests in international relations. In the second chapter, I have analyzed the interdependence between the European Union and Russia, the former being Russia's largest hydrocarbons importer and its largest source of import revenues, and the latter being the largest supplier of hydrocarbons to the Union. I have then proceeded to define how this interdependence has developed into a security dilemma by analyzing the political divergences in EU-Russia relations that have created mistrust between the two actors. I have also reserved special attention to Ukraine whose swinging attitude between the EU and Russia and disputes over gas supplies with the Federation have fueled tensions between the two neighbors. Specifically, I have analyzed the role of the gas disputes of 2006 and 2009 between Ukraine and Russia in sparking the Union's concerns about Russia using natural gas as a geopolitical weapon and prompting the two actors to develop the energy strategies analyzed in the third chapter. Additionally, I have underlined the role of the Crimean crisis in deteriorating the political relations between the Union and the Federation and in catalyzing the two actors' implementation of their energy diversification strategies, having the event prompted the urgency to decrease their mutual energy dependence. In the last chapter, I have analyzed the strategies implemented by the European Union and Russia to safeguard their energy security. The Union's policy prioritizes the reduction of its dependence on Russian energy imports, in particular natural gas, through the diversification of energy sources and energy suppliers. The EU increased its imports of LNG from countries like the United States and Qatar, developed new LNG terminals to decrease the dependency of those Member States excessively reliant on Russian gas, and sponsored the construction of pipeline networks like the Southern Gas Corridor, the EastMed, and the Poseidon pipelines to draw gas from reserves located in the territory of Central Asian and the Eastern Mediterranean countries like Azerbaijan, Cyprus, Israel, and Turkmenistan, to decrease the dependency on Russia as an undisputed supplier. Furthermore, the EU has launched an ambitious decarbonization policy to halve CO<sub>2</sub> emissions by 2030 and consistently decrease hydrocarbon consumption, lowering, in turn, its fossil fuel imports from Russia. On its part, Russia has adopted a bidirectional strategy which aims, on the one hand, at entrenching Europe's dependence on its imports and promote its reliability as a supplier by bypassing problematic transit countries to secure the European imports revenues which strongly contribute to the country's economic wellbeing. On the other hand, the Federation has increased cooperation with the Eastern markets, in particular China, to diversify its sources of revenues and ensure its energy security in the prospect of a decrease in demand from the European side. Lastly, to understand how the interdependence continues despite the diversification strategies, I have analyzed the contradictions behind the EU's diversification and decarbonization policies and why Russia cannot fully compensate for a potential loss of European demand with its pivot eastward. Indeed, despite the diversification strategy of the Union, lack of cohesion within the EU could jeopardize the goal of reducing dependence on Russia, as Member States like Germany and Bulgaria have cooperated with Russia for the construction of new pipelines to bring additional Russian gas to Europe. The Nord Stream I, and the Nord Stream II, which is expected to begin deliveries in October 2021, will bring 110 bcm of natural gas directly to Germany, while, in response to the cancellation of the South Stream, Russia has constructed the TurkStream, bringing gas to Turkey where it then flows in the Balkan Stream, promoted by Bulgaria<sup>1</sup>. Moreover, natural gas will remain relevant for the Union to accomplish its decarbonization strategy, as a cleaner alternative to coal. Therefore, as its gas reserves are depleting and its electricity demand is expected to rise, the EU continues to rely on natural gas imports from Russia, which has now found direct access to the Union's territory through the Nord Stream. On its part, while Russia has increased the diversification of its energy exports in the Asia Pacific, stipulated agreements with China for large and long-term oil and gas deliveries, and constructed new pipelines to carry its exports to China, the turn to China might result "slower and less lucrative than the Russians had hoped", as China's unprecedented growth rate has decreased since 2010, falling steeply in the aftermath of the COVID-19 pandemic, and the country is not willing to pay as high prices as the European customers<sup>2</sup>. Therefore, the European market remains the most profitable export market for Russia, which cannot afford to lose the revenues from Europe and which, in turn, continues to be dependent on the latter as its best customer.

<sup>&</sup>lt;sup>1</sup> TASS. Experts predict gas supplies could start flowing through Nord Stream 2 in October. 19.08.2021. URL: https://tass.com/economy/1327827.

<sup>&</sup>lt;sup>2</sup> Skalamera M. Understanding Russia's turn to China: domestic narratives and national identity priorities. Post-Soviet Affairs, 34:1, 55-77. 2018 P.64. URL: https://doi.org/10.1080/1060586X.2017.1418613.

### Energy security throughout history and in international relations theory

#### 1.1 The historical development of the energy security paradigm

The First Industrial Revolution paved the way for new dominant energy sources: fossil fuels, namely coal, oil, and gas, each of which has dominated the economic and political debate of different historical periods, have fueled and often have been the cause of international conflicts. Since the Industrial Revolution, the consumption of fossil fuels has steadily increased and today, they supply more than 80 percent of the energy consumed in industrialized countries<sup>3</sup>. In light of the steady increase in world consumption of fossil fuel, the depletion of oil, gas, and coal reserves is a concern that has pushed countries to enhance technological development in the energy field to be able to exploit reserves not easily accessible, as in the case of shale gas technologies such as hydraulic fracturing and horizontal drilling, which allow reaching reserves that would not be exploitable using standard technology. As defined by N. Sönnichsen, proved reserves "indicate the amount of a resource that can be produced economically under current prices and technologies" and, therefore can change over time depending on the technological advancement and field discovery<sup>4</sup>. In 2020, the global proved coal reserves amounted to roughly 1.07 trillion metric tons with five countries, namely the United States, Russia, Australia, China, and India, owning around 75 percent of the world's proven reserves, with the United States recording the biggest coal reserves in the world, with 248.9 billion metric tons, followed by Russia, with 162.2 billion metric tons<sup>56</sup>. Oil is the biggest source of energy consumption in the world, accounting for more than a third of the world's energy production. Considering the importance of oil for the global economy, countries owning oil reserves retain disproportionate economic and political leverage. However, the possession of oil reserves can become a double-edged sword, usually causing over-dependence of the national economy on fossil fuels revenues and often becoming a source of national or regional economic and political instability. As of 2020, global proved oil reserved amounted to around 1732 billion barrels, two billion less compared to 2019, with most oil reserves located in the Middle East and Africa, followed by Southern and Central American, and North America, as reported in Figure 1. Venezuela records the highest

<sup>&</sup>lt;sup>3</sup> Kopp O. C. Fossil fuel. Encyclopedia Britannica. URL: https://www.britannica.com/science/fossil-fuel.

<sup>&</sup>lt;sup>4</sup> Sönnichsen N. Global natural gas proved reserves 2000-2020. Statista. 13.07.2021. URL: https://www.statista.com/statistics/281873/worldwide-reserves-of-natural-gas/.

<sup>&</sup>lt;sup>5</sup> Garside M. Global proven coal reserves by country 2020. 14.07.2021. URL: https://www.statista.com/statistics/237096/proven-coal-reserves-of-the-top-ten-countries/.

<sup>&</sup>lt;sup>6</sup> U.S. Energy Information Administration. Coal explained. How much coal is left. 09.10.2002. URL: https://www.eia.gov/energyexplained/coal/how-much-coal-is-left.php.

share of oil reserves, with 17.5% of global reserves, followed by Saudi Arabia, with 17.2%, and Canada, with 9.7%<sup>7</sup>. Most of the world's oil reserves are currently located in the territories of the Organization of the Petroleum Exporting Countries (OPEC), Venezuela, Saudi Arabia, Iran, Iraq, Kuwait, the United Arab Emirates, Libya, Nigeria, Algeria, Ecuador, Angola, Congo, Gabon, and Equatorial Guinea, which together, according to the OPEC Annual Statistical Bulletin of 2019, account for 79.4 percent of the world's proven oil reserves<sup>8</sup>. Concerning natural gas, according to the US Energy Information Agency (EIA), as of January 2020, global natural gas reserves amounted to 7,257 trillion cubic feet (Tcf)<sup>9</sup>. The Middle East appears to be one of the richest regions also for natural gas reserves, having an estimated 40 percent of the world's reserves<sup>10</sup>. Russia is the country with the largest proven natural gas reserves, amounting to 37Tcm, followed by Iran, with 32 Tcm, and Qatar, with 25 Tcm<sup>11</sup>.



*Figure 1: World distribution of proven oil reserves 2000,2010,2020*<sup>12</sup>.

<sup>&</sup>lt;sup>7</sup> 1996-2021 BP. Oil. URL: https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html

<sup>&</sup>lt;sup>8</sup> 2021 Organization of the Petroleum Exporting Countries. OPEC share of word crude oil reserves, 2018. URL: https://www.opec.org/opec\_web/en/data\_graphs/330.htm.

<sup>&</sup>lt;sup>9</sup> U.S. Energy Information Administration. Frequenltly Asked Questions. What is the volume of the world natural gas reserves?. 13.04.2021. URL: https://www.eia.gov/tools/faqs/faq.php?id=52&t=8.

<sup>&</sup>lt;sup>10</sup> Sönnichsen N. Global natural gas proved reserves 2000-2020. Statista. 13/07/2021. URL: https://www.statista.com/statistics/281873/worldwide-reserves-of-natural-gas/.

<sup>&</sup>lt;sup>11</sup> 1996-2021 BP. Natural Gas. URL: https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/natural-gas.html.

<sup>&</sup>lt;sup>12</sup> Stebbins S. These 15 countries, as home to the largest reserves, control the world's oil. USA Today Money. URL: <u>https://eu.usatoday.com/story/money/2019/05/22/largest-oil-reserves-in-world-15-countries-that-control-the-worlds-oil/39497945/</u>





Source: OPEC Annual Statistical Bulletin 2019.

*Figure 3: Estimated proved natural gas reserves, 2017*<sup>14</sup>.



e1a<sup>1</sup> Source: Oil & Gas Journal, "Worldwide Look at Reserves and Production," December 5, 2016

In recent years, energy security has become an increasingly crucial feature of the international security debate because of the increasing dependency of State actors on energy resources, like Europe's increased dependency on oil and gas and the rising energy needs of emerging powers like

<sup>&</sup>lt;sup>13</sup> 2021 Organization of the Petroleum Exporting Countries. OPEC share of word crude oil reserves, 2018. URL: <u>https://www.opec.org/opec\_web/en/data\_graphs/330.htm.</u>

<sup>&</sup>lt;sup>14</sup> U.S. Energy Information Administration. Russia Overview. 31.10.2017. URL: https://www.eia.gov/international/analysis/country/RUS.

the BRICS countries, the fear of depletion of current world reserves of fossil fuels, the increasing concerns about the dramatic effects that the current pace of fossil fuels production and consumption has on the environment and the growing relevance of nuclear and green energy and technology in building a future society less dependent on fossil fuels. The increasing militarization of energy, the political instability, and the emergence of the piracy and terrorist threats in many exporter countries, as well as the recurrent use of energy as a political weapon, have brought the issue of energy security high on States' national security agendas.

There is no agreed definition of energy security. One of the most acknowledged definitions has been formulated by the International Energy Agency (IEA) which defines energy security as the "uninterrupted availability of energy sources at an affordable price"<sup>15</sup>. The concept of energy security is generally founded on the equilibrium among four principles, the so-called four As of energy security: availability, meaning the "physical availability of energy resources"; affordability, namely the availability of energy resources at a reasonable price; accessibility, meaning guaranteed safe access to energy; and acceptability which entails the use of resources considered environmentally acceptable and ensuring the possibility for consumption also for future generations <sup>16</sup>. The concept of energy security has undergone various developments throughout contemporary history, depending on the main source of energy and the perceptions of the threats of the time. With the outbreak of the First Industrial Revolution, fossil fuels have become the main source of energy. Since then, different types of fossil fuels have dominated the development of society and warcraft. Firstly, since the Industrial Revolution well into the 20<sup>th</sup> century, coal was the predominant form of energy; starting from the First World War and mostly during the Second World War, oil became the predominant energy source and the object of political and military disputes; following the environmental concerns related to oil production and consumption, the role of natural gas has complemented that oil, becoming a dominant energy source as well as the object of geopolitical disputes. The concept of energy security acquired increasing importance in the modern area during the First World War, the first mechanized war, when Winston Churchill, who at the time was First Lord of the Admiralty, made a "historic decision", namely switching the power source of the British fleet from coal to oil, in light of the speed advantage that the navy would get on Germany and despite the insecurity that such a source of power entailed, not being extracted in the United Kingdom like coal<sup>17</sup>. Churchill was indeed one of the first to address the issue of energy security around oil as a matter of diversification, claiming that "safety and

<sup>&</sup>lt;sup>15</sup> IEA. Energy security. 02.12.2019. URL://www.iea.org/areas-of-work/ensuring-energy-security.

<sup>&</sup>lt;sup>16</sup> Szulecki K. Energy Security in Europe, Divergent Perceptions and Policy Challenges. Palgrave Macmillan. Oslo. 10. 2017. P.5.

<sup>&</sup>lt;sup>17</sup> Yergin D. Ensuring Energy Security. Foreign Affairs. 04.2006.

certainty in oil lie in variety and variety alone"<sup>18</sup>. With the rise of the importance of oil as an energy source for industrial development and warcraft, this fossil fuel has often contributed to international conflicts, either as a reason or a means of war. During the First World War, the issue of oil scarcity probably played a role in shaping the British Empire's post-war domination of the Middle East. Being a coal producer relying heavily on oil export from the United States, which had been jeopardized by Germany's submarine warfare, the British Empire prioritized its campaign against the Ottoman Empire in the Middle East and acquired control of almost half of the then-known world oil reserves<sup>19</sup>. The Second World War constituted a battleground driven by energy security concerns. The two most renowned historic examples are the German invasion of the Soviet Union in 1941 and the occupation of southern and northern Iran by the British and Soviet forces. Oil was indeed the main energy source employed during World War II and Germany, not being able to rely on its peacetime supply sources, was hindered in its offensive power by a lack of oil supplies. The German invasion of the Soviet Union is also related to the German oil scarcity, having the Germans directed the offensive during Operation Barbarossa to south-western Russia, with the aim of conquering the Caucasus oil fields. The German invasion of the Soviet Union directed at its southern oil fields prompted fears that the German army would not stop at the Soviet borders and would proceed to invade Iran. Being the latter the main supply route for Russia and the Allies, a possible German conquest would have blocked necessary supplies for the Allies. The fear of losing their main supply route in the Persian Corridor and the need to protect the British-controlled oil fields in the country prompted the British and the Soviet troops to occupy northern and southern Iran in 1941, leveraging on Reza Shah's reluctance to expel German nationals from the country and pushing him to  $abdicate^{20}$ .

The concept of energy security became to be more defined during the oil era, when a series of historic international events showed the international community how the economy, politics, and technology, among others, could have disruptive effects on energy security, nationally and internationally. Among the first of such events was the Suez crisis in 1956, leading to the closure of the Suez Canal, one of the most important straits and chokepoints for the transit of oil supplies from the Middle East to Europe, which exposed the fragility of the European countries, heavily reliant on

<sup>&</sup>lt;sup>18</sup> Ibid.

<sup>&</sup>lt;sup>19</sup> Colgan J. D., Stockbruegger J.B. Energy and International Conflict. The Oxford Handbook of Energy Politics. 11.2018. P.6.

<sup>&</sup>lt;sup>20</sup> United States Holocaust Memorial Museum. Iran During World War II. https://www.ushmm.org/m/pdfs/Iran-During-World-War-II.pdf.

oil supplies from this region, as two-thirds of Europe's oil supplies traveled through the Suez Canal<sup>21</sup>. Two major oil shocks in the post-World War II period strongly contributed to the rising importance of energy security in the national security agendas. The first oil shock was the Arab oil embargo of 1973, in the aftermath of the Yom Kippur War waged by Egypt and Syria against Israel. In retaliation to the Western countries' support to Israel during the war and in concomitance with the devaluation of the US dollar which eroded earnings from oil exports, the Organization of the Petroleum Exporting Countries (OPEC) halted oil shipments to the United States, the United Kingdom, Canada, Japan, the Netherlands, Portugal, Rhodesia, and South Africa, leading to a four-fold increase of oil prices from 2.5\$ to more than 10\$ per barrel and a widespread economic crisis<sup>22</sup>. The Organization of the Petroleum Exporting Countries was the first organization born to protect its members' energy security, founded at the Baghdad Conference in September 1960 by Iran, Iraq, Saudi Arabia, and Venezuela, in response to the dominance of the oil cartel of the Seven Sisters, the Western oil transnational companies comprising of Royal Dutch Shell, British Petroleum, Gulf, Exxon, Mobil, Texaco, and Chevron which dominated the oil market, possessing in 1950 around 98.3 percent of the market shares of the global petroleum production $^{2324}$ . The Seven Sisters retained the exclusive right of exploration, extraction, and production of petroleum in Venezuela and the oil-producing countries in the Middle East in exchange for a share of the profits in the form of royalties<sup>25</sup>. However, considering the emerging power of the Seven Sisters and their predominancy over national oil production, Iran, Iraq, Saudi Arabia, and Venezuela founded OPEC to regain control over national resources by nationalizing the oil industries and stabilize oil prices through the coordination of national production and export. Therefore, OPEC was born as the result of the oil exporter's need to ensure their energy security, and today its Stated objective is to "co-ordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry", ultimately allowing members to retain control over their policies, in conformity with the principle upheld in the 'Declaratory Statement of Petroleum Policy

<sup>&</sup>lt;sup>21</sup> Colgan J. D., Stockbruegger J.B. Energy and International Conflict. The Oxford Handbook of Energy Politics. 11. 2018. P.7.

<sup>&</sup>lt;sup>22</sup> Kettell, S. Oil crisis. Encyclopedia Britannica. URL: https://www.britannica.com/topic/oil-crisis.

<sup>&</sup>lt;sup>23</sup> 2021 Organization of the Petroleum Exporting Countries. Brief History.

URL: https://www.opec.org/opec\_web/en/about\_us/24.htm.

<sup>&</sup>lt;sup>24</sup> Wood A. D., Mason C. F., Finnoff D. OPEC, the Seven Sisters, and Oil Market Dominance: An Evolutionary Game Theory and Agent-Based Modeling Approach. 12. 2016. P.1.

 $<sup>^{25}</sup>$  Ibid.

in Member Countries' in 1968 which underscores national incontrovertible right to retain permanent sovereignty over their natural resources<sup>26</sup>.

The oil embargo on the Western States prompted changes in the domestic energy policies of these countries to reduce their dependence on Middle Eastern oil and improve efficiency and increase domestic oil production such as in the case of the United States<sup>27</sup>. Despite the lift of the embargo in 1974 for the United States and later to the other countries, the increase in oil prices caused a steep economic recession and stagnation throughout the 1970s. Having the Arab oil embargo constituted a threat for the energy security of the Western countries, in 1974 the latter established the International Energy Agency (IEA), the "main international forum for energy cooperation (...) with a broad mandate on energy security and energy policy cooperation", entailing a collective response mechanism to "respond effectively to potential disruptions in oil supply"<sup>28</sup>. The Arab oil embargo had, indeed, shown the possibility for oil of becoming a weapon and it highlighted the US needs to ensure access to Middle Eastern oil as a national security priority<sup>29</sup>. The oil prices drastically increased with the second oil shock in 1979, in the aftermath of the Iranian Revolution that prompted domestic instability which severely damaged the Iranian oil industry, resulting in consistent losses of oil production and an increase in prices from 13% to 34% per barrel<sup>3031</sup>.

Since the Second World War, oil has directly or indirectly shaped several domestic and international conflicts. The 1953 coup d'état in Iran finds its origins in an Anglo-Iranian energy dispute over the Anglo-Iranian oil company at Abadan, of which Britain retained 51 percent of the shares and, therefore, most of its revenues. To end the State of poverty affecting the Iranian people, Prime Minister Muhammad Mosaddeq, proclaimed the nationalization of the oil company which, however, prompted a boycotting of purchase and transport of Iranian oil from the United Kingdom and the United States, leading to an economic crisis and violent protests in the country which pushed the Shah to escape. In order not to lose their influence over the country, the US Central Intelligence

<sup>&</sup>lt;sup>26</sup> 2021 Organization of the Petroleum Exporting Countries. Brief History.

URL: https://www.opec.org/opec\_web/en/about\_us/24.htm.

<sup>&</sup>lt;sup>27</sup> Britannica, The Editors of Encyclopaedia. Arab oil embargo. *Encyclopedia Britannica*, Invalid Date, URL: https://www.britannica.com/event/Arab-oil-embargo.

<sup>&</sup>lt;sup>28</sup> IEA. History. From oil security to steering the world toward secure and sustainable energy transition. 18. 02. 2021. URL: https://www.iea.org/about/history.

<sup>&</sup>lt;sup>29</sup> Colgan J. D., Stockbruegger J.B. Energy and International Conflict. The Oxford Handbook of Energy Politics. 11. 2018. P.7.

<sup>&</sup>lt;sup>30</sup> Yergin D.Energy Security in the 1990s. Foreign Affairs. Fall, , Vol. 67, No. 1. 1988. P.115.

Agency and the British MI6 backed a military coup to arrest Mosaddeq, restore the power of the Shah in the country, and the British-American control over Iran's oil industry<sup>32</sup>. The 1990 Iraqi invasion of Kuwait and subsequent intervention by the US-led international coalition were also driven by energy security concerns. Following Iraq's inability to repay its debt to Kuwait in the aftermath of the Iraq-Iran War, Iraq accused its small neighbor of cross-border drilling, stealing into Iraqi oil dwells, and invaded Kuwait, posing a threat to Saudi Arabia and its oil wells. The prospect of Saddam Hussein controlling the oil reserves of the Middle East was one of the reasons which prompted the US-led air intervention with the operation Desert Storm which forced Iraq to retreat. When withdrawing from Kuwait, the Iraqi army practiced the military strategy of scorched-earth, using oil as a means of warfare by setting fire to more than 600 Kuwaiti oil wells, dramatically affecting the country's economy<sup>33</sup>. Furthermore, oil has been deemed to have facilitated the rise of terrorist groups like Al-Qaeda and the Islamic State, through funding and geopolitical aspirations, with ISIS having captured oil fields and funded its expansion with the oil revenues<sup>34</sup>.

In the 21<sup>st</sup> century, oil remains the dominant energy source, as there is no equivalent to be used for transportation, in addition to the fact that oil is the only energy source to be exchanged on the global markets and traded between regions at similar prices<sup>35</sup>. However, since the first oil shock, natural gas has grown in importance, as part of the States' attempt to increase diversification and be less reliant on oil imports. Natural gas entails different implications for energy security than oil, some of which are profitable, and some are disadvantageous. For instance, contrary to oil, natural gas is generally transported through pipelines, therefore, by avoiding maritime shipping, the gas trade is less vulnerable to piracy and strategic manipulations of the critical chokepoints, however, pipelines tend to increase the dependency between importer and exporter and make them more vulnerable to disruptions as the pipeline transportation system hinders the possibility of switching to other partners and facilitates the use of gas as a weapon. Secondly, as there is no global gas market, there is no global gas price, meaning that gas price is determined through commercial agreements between countries and can be easily modified, contributing to the possibility for gas to be used as a means of coercion. The 21<sup>st</sup> century witnessed the emergence of a new paradigm of energy security in light of

<sup>&</sup>lt;sup>32</sup>Cavendish R. The Iranian Oil Fields are Nationalised. History Today. Vol. 51. 05.05.2001. URL: https://www.historytoday.com/archive/iranian-oil-fields-are-nationalised.

<sup>&</sup>lt;sup>33</sup> Chisholm Chisholm & Kilpatrick ltd. Oil Well Fires in Kuwait. 16.11.2018. URL: https://cck-law.com/blog/oil-well-fires-in-kuwait/.

<sup>&</sup>lt;sup>34</sup> Colgan J. D., Stockbruegger J.B. Energy and International Conflict. The Oxford Handbook of Energy Politics. 11. 2018. P.8.

<sup>&</sup>lt;sup>35</sup> *Ibid.* P.1.

the so-called "gas war" of 2005-2006 and 2009 between the Russian Federation and Ukraine which resulted in a cutoff of supplies and a state of alarm in the European countries. Major events in the 2000s such as the terrorist attacks to the World Trade Center of 9/11 which showed the vulnerability of national security to non-state actors, including the energy field, the gas disputes of 2005-2006, the political unrest of the Color Revolutions, and the increasing environmental disasters such as Hurricane Katrina in 2005 and the Great East Japan Earthquake in 2011 brought energy security back on the agenda of the international community<sup>36.</sup> In 2005, at the G8 summit held in Scotland, the Group formulated several priorities on energy which have become a cornerstone for the G8 work in this field. Such priorities were: "promote innovation, energy efficiency, economical use of energy; improve political, regulatory and financial mechanisms; accelerate the introduction of environmentally friendly technologies, especially technologies that reduce atmospheric emissions; work with the developing countries to improve the conditions for private investment and technology transfer; make information about climate change to the public, provide access to information necessary for businesses and consumers to use energy resources more efficiently and reduce atmospheric emissions"<sup>37</sup>.

#### **1.2 Defining energy security**

Energy security is a particularly complex notion entailing the diverse economic, political, and military interests of States and, in recent years, it has become part of, if not a priority, of some countries' foreign policy and national security strategies, as in the case of the Russian Federation which, in the National Security Strategy Act to 2020 of 2003, acknowledged the role of the national oil and gas sector in shaping the country's foreign policy and the opportunity that Russian fossil fuels represent in reinforcing the country's role in the international arena<sup>38</sup>. The concept of energy security gained momentum in the aftermath of the 1973 Arab oil embargo and underwent further developments with the beginning of the 2000s. Indeed, since the 1973 oil crisis, energy has started to be conceptualized as a matter of security and underwent a process of securitization as international actors acknowledged the presence of existential threats to energy and the need to "assure energy

<sup>&</sup>lt;sup>36</sup> Kazutomo I. The Evolution of the Energy Security Concept and APEX Energy Cooperation. Singapore Issues 2017. International Association for Energy Economics. 2017.

<sup>&</sup>lt;sup>37</sup>Головина М. С. ЭКОНОМИЧЕСКИЕ АСПЕКТЫ РЕГИОНАЛЬНОЙ ЭНЕРГЕТИЧЕСКОЙ БЕЗОПАСНОСТИ И ЭКСПОРТНАЯ СТРАТЕГИЯ РОССИИ НА РЫНКЕ ГАЗА СТРАН ЕВРОПЕЙСКОГО СОЮЗА. Moscow. 2015. P.97.

<sup>&</sup>lt;sup>38</sup> Mohapatra N. K. Energy Security and Russia's Foreign Policy. CRP Working Paper Series. Working paper No.11. 05.2013.

supplies; assuring secure energy extraction, transportation, and consumption; and improving energy efficiency for environmental, economic and social purposes<sup>39</sup>. By securitization, the fathers of the Copenhagen School of Security Studies, Berry Buzan and Ole Wæver defined securitization as "the discursive process through which an intersubjective understanding is constructed within a political community to treat something as an existential threat to a valued referent object and to enable a call for urgent and exceptional measures to deal with the threat<sup>340</sup>. Applying this definition to energy security, energy has come to be perceived by States as a threat in the aftermath of the 1973 oil embargo, and consequently, it has become the referent object which needs to be protected from existential threats through the enaction of exceptional measures. However, being securitization a subjective matter, as each individual or State can have different views on what constitutes a threat and the object of reference, each can deal with the process of energy securitization in a different manner.

The first oil crisis in 1973, has shown the relevance of energy in shaping international political and economic dynamics and its potential threat to national security, while energy security acquired further centrality during the twenty-first century when the gas wars and environmental threat convened the attention not only of States but also international organizations such as the International Energy Agency (IEA), the World Bank and the United Nations<sup>41</sup>. As mentioned above, one of the most accepted definitions of energy security was formulated by the International Energy Agency (IEA) as the "uninterrupted availability of energy sources at an affordable price"<sup>42</sup>. In 2005, in the document "Energy Security Issues", the World Bank defined energy security as a "means ensuring countries can sustainably produce and use energy at a reasonable cost in order to:

- "Facilitate economic growth and, through this, poverty reduction; and
- Directly improve the quality of peoples' lives by broadening access to modern energy services."<sup>43</sup>.

The Bank also differentiated between energy security in the short-term and long-term, both seen from the point of view of the supplier. For what concerns the long-term, energy security requires to ensure

<sup>&</sup>lt;sup>39</sup> Proskuryakova L. Updating energy security and environmental policy: Energy security theories revisited. Journal of Environmental Management. Vol. 223. 01.10.2018. P.206.

<sup>&</sup>lt;sup>40</sup> Buzan B., Wæver O. Regions and Powers. The Structure of International Security. Cambridge University Press. P.491.

<sup>&</sup>lt;sup>41</sup> Elbassoussy A. European energy security dilemma: major challenges and confrontation strategies. P.326.

<sup>&</sup>lt;sup>42</sup> IEA. Energy security. 02.12.2019. URL: https://www.iea.org/areas-of-work/ensuring-energy-security.

<sup>&</sup>lt;sup>43</sup>The World Bank. Energy Security Issues. Moscow-Washington DC. 05.12.2005.

URL: https://documents1.worldbank.org/curated/en/464811468175435408/pdf/361100ENGLISH01gy1Security01PUB LIC1.pdf. P.3.

the availability of supply to face growing energy demand, while in the short-term it requires the ability to cope with the negative economic impacts following fluctuations of the oil prices<sup>44</sup>. In the same document, the World Bank provided a classification of countries into five categories, depending on their role as supplier or consumer, their level of industrial development, and conceptualization of energy security. The categorization develops as follows:

- Industrialized New Energy Importers whose energy security priorities include avoiding disruptions of energy supplies and diversify their sources, ensure security for the infrastructure and reduce dependence on supply imports through technological improvements;
- Major Hydrocarbon Exporting Countries whose energy security priorities entail ensuring long-term markets at affordable prices, diversify export markets, financing investment in resource development and infrastructure, and meeting people's basic energy needs;
- Large emerging markets with rapidly growing energy demands, Mid-income net energy importers, and Low-income whose main energy security priorities include meeting the growing demand for energy, diversify energy supplies, financing investment in resource development and infrastructure, reduce reliance on supply imports through technological improvements, and meeting people's basic energy needs<sup>4546</sup>.

In light of the dramatic environmental impact of fossil fuels, in 2004 the United Nations Development Program (UNDP) defined energy security as "the availability of energy at all times in various forms, in sufficient quantities, and at affordable prices, without unacceptable or irreversible impact on the environment", underlining that environmental protection constitutes a fundamental component of energy security in the twenty-first century<sup>47</sup>. In 2007, the Asia-Pacific Energy Research Center (APERC) developed an encompassing definition of energy security as "the ability of an economy to guarantee the availability of energy resource supply in a sustainable and timely manner with the energy price being at a level that will not adversely affect the economic performance of the economy"

<sup>&</sup>lt;sup>44</sup> Elbassoussy A. European energy security dilemma: major challenges and confrontation strategies. Review of Economics and Political Science Vol. 4 Issue 4. P.328.

<sup>&</sup>lt;sup>45</sup>The World Bank. Energy Security Issues. Moscow – Washington DC. 5.12.2005. P.4. URL: https://documents1.worldbank.org/curated/en/464811468175435408/pdf/361100ENGLISH01gy1Security01PUBLIC1. pdf.

<sup>&</sup>lt;sup>46</sup> Elbassoussy A. European energy security dilemma: major challenges and confrontation strategies. Review of Economics and Political Science Vol. 4 Issue 4. P.327.

<sup>&</sup>lt;sup>47</sup>UNDP. World Energy Assessment Overview 2004 Update. New York. 2004. P.42.

centered on the idea of security of supply based on availability and affordability<sup>48</sup>. In conceptualizing energy security, the Center has taken into account five components of energy security, as follows:

- 1. The availability of resources domestically and from other suppliers;
- 2. The ability to attract supplies and meet the levels of demand;
- 3. Diversification of suppliers and energy resources;
- 4. The availability of energy infrastructure to secure access to resources;
- 5. The geopolitical implications of obtaining energy resources<sup>49</sup>.

During the Conference "Middle East Energy 2008", OPEC's Secretary-General, Abdalla Salem El-Badri, underlined that energy security is a reciprocal concept, entailing both the security of demand for the exporter and the security of supply for the importer. According to his definition, energy security should be:

- 1. "Universal, applying to rich and poor nations alike, with the focus on the three pillars of sustainable development and in particular the eradication of poverty;
- 2. It should focus on providing all consumers with modern energy services;
- 3. It should apply to the entire supply chain. Downstream is as crucial as upstream;
- 4. It should cover all foreseeable time-horizons. Security tomorrow is as important as security today;
- 5. It should allow for the development and deployment of new technologies in a sustainable, economic and environmentally-sound manner; and
- 6. It should benefit from enhanced dialogue and cooperation among stakeholders"<sup>50</sup>.

OPEC's definition of energy security takes into account both the security for the consumer and the supplier, the need to ensure long-term energy security for generations to come, to develop technology to reduce the negative impact on the environment, and portrays energy security as a matter of cooperation, diplomacy and multilateralism rather than conflict and manipulation.

One of the most prominent scholars to interpret energy security is Daniel Yergin, who, in his work *Energy Security in the 1990s*, defined energy security as "assur(ing) adequate, reliable supplies of energy at affordable prices and in ways that do not jeopardize major national values and

<sup>&</sup>lt;sup>48</sup> Ibid.

<sup>&</sup>lt;sup>49</sup> Asia Pacific Energy Research Centre. A quest for energy security in the 21<sup>st</sup> century. Tokyo. 2007. P.6.

<sup>&</sup>lt;sup>50</sup> 2021 Organization of the Petroleum Exporting Countries. Energy Security and Supply.

URL: https://www.opec.org/opec\_web/en/862.htm.

objectives"<sup>51</sup>. This definition encompasses two of the main pillars of energy security, namely availability and affordability, and is one of the first definitions to conceptualize energy as a potential means of coercion that could constitute a threat to national values and political freedom. As this definition focuses on the security of supply, according to Yergin, shocks, intended as "interruptions, disruptions and manipulations of supply" constitute the main threat to a State's energy security given the consequential abrupt increase in prices of resources which in turn can entail grave political and economic consequences<sup>52</sup>. When discussing energy security, Yergin focuses on oil as the main driver of insecurity, having been and still being the dominant energy source in the industrial world and because of the asymmetry concerning oil, as most oil reserves are not located in the territories of the biggest consumers, creating an economic and, sometimes, political dependency on supplier countries. The American scholar has been one of the first to also acknowledge the subjectivity of the concept of energy security which tends to be interpreted differently by each State according to their needs and role in the energy market, increasing the complexity of the term and reducing the possibility for scholars and States to agree on a single definition. Indeed, while importer countries, such as the European ones, understand energy security in terms of availability and affordability of energy supplies, exporting countries like the Russian Federation conceive energy security as stability of demand by ensuring the reliability of supply and development and maintenance of energy infrastructures. In 1979, David Deese developed a definition of energy security based on availability and affordability of supplies which is determined by two principal components: economics on one side and national and international politics on the other, the two being strongly interlinked in that "any problems may face domestic supplies will create more pressure on increasing imports, and that will impose more threats to the national security of the State (as) all actions taken by a country in pursuit its energy security may increase or decrease its independence on the international arena and will affect its security"<sup>53</sup>. While some definitions, like the aforementioned ones, focus on availability and affordability, others, such as the one provided by Armory and Hunter Lovins, focus on diversification and independence, defining energy security as more than the availability of supplies, but as the need to decrease dependence on energy sources from outside suppliers<sup>54</sup>. In his encompassing definition, Winzer addresses the need for diversification as well by basing his concept of energy security on "diversification of energy sources in the energy mix through different

<sup>&</sup>lt;sup>51</sup> Yergin D. Energy Security in the 1990s. Foreign Affairs. Vol. 67, No. 1. Fall 1988. P.111.

<sup>&</sup>lt;sup>52</sup> *Ibid.* P.112.

<sup>&</sup>lt;sup>53</sup> Elbassoussy A. European energy security dilemma: major challenges and confrontation strategies. Review of Economics and Political Science Vol. 4 Issue 4. P. 326.

<sup>&</sup>lt;sup>54</sup> Lovins A., Lovins H. Energy Policies for Resilience and National Security. Friends of Earth, San Francisco. 1981.

suppliers"<sup>55</sup>. Other scholars, conceive energy security as an interception of economic, political, and environmental concerns. Thomas Neff sees a strong link between security and the environment and conceives energy security as an important driver of conflicts, nationally and regionally, while Jewell and Cherp describe the various aspects of energy security, mainly the political, economic, and structural<sup>56</sup>. The scholars analyze energy security in terms of "vulnerability of nationally vital energy services without which modern States cannot function" and have identified three perspectives of energy security: the sovereignty perspective which focuses on threats caused by external factors such as terrorist acts, hostile States, embargos, and unreliability; the robustness perspective linked to infrastructural and technological issues such as failures or natural catastrophes while the third perspective, resilience, focuses on threats coming from the unpredictability of markets, societies, and technologies which require greater flexibility<sup>575859</sup>. While most definitions of energy security provide more attention to the security of supply, scholars like Sovacool, Sidortsov, and Jones define energy security as the "equitable providing of available, affordable, reliable, efficient, environmentally benign, proactively governed, and socially acceptable energy services to end users", a definition of energy security which focuses more on the security of demand, looking at the issue from the perspective of energy exporting countries like Russia<sup>60</sup>. Some scholars like Senderov and Smirnova share Yergin's idea of shocks as the main threat to energy security and define energy security as "assuring citizens', State, societal and economic protection from energy shortages (deficit) and blackouts, provision of quality energy resources" and adopt an outlook which takes into account the needs of society, the protection of the consumer and the active role of governments in ensuring energy security to their citizens<sup>61</sup>. In conclusion, it can be said that energy security is an evolving concept, mutable according to the needs and position of each State. It is a concept that has gradually acquired a broader meaning by encompasses multiple dimensions such as the economic, the political, the

<sup>&</sup>lt;sup>55</sup> Proskuryakova L. Updating energy security and environmental policy: Energy security theories revisited. Journal of Environmental Management. Vol. 223. 01.10.2018. P.204.

<sup>&</sup>lt;sup>56</sup> Neff, T. "Improving energy security in Pacific Asia: diversification and risk reduction for fossil and nuclear fuels", MA. 1997.

<sup>&</sup>lt;sup>58</sup> Jewell, J. and Cherp, A. "The three perspectives on energy security: intellectual history, disciplinary roots and the potential for integration". Current Opinion in Environmental Sustainability. Vol. 3. 2011. P. 210.

<sup>&</sup>lt;sup>59</sup> Elbassoussy A. European energy security dilemma: major challenges and confrontation strategies. Review of Economics and Political Science Vol. 4 Issue 4. P. 330.

<sup>&</sup>lt;sup>60</sup> Sovacool, B., Sidortsov, R. and Jones, B. Energy Security, Equality and Justice, 1st ed. 13.12.2013. Routledge. London.

<sup>&</sup>lt;sup>61</sup> Proskuryakova L. Updating energy security and environmental policy: Energy security theories revisited. Journal of Environmental Management. Vol. 223. 01.10.2018. P.204.

environmental, and the technological spheres which, depending on the geopolitical dynamics, can both pose a threat to a State's security and be the object of the threat. After reviewing some of the multiple and diverse definitions of energy security, for the purpose of this analysis, the definition that better explains States' energy security dilemma and the geopolitical implications of over-dependence is the one provided by Daniel Yergin, namely energy security as "assur(ing) adequate, reliable supplies of energy at affordable prices and in ways that do not jeopardize major national values and objectives"<sup>62</sup>. This definition is indeed pertaining to the energy security dilemma shaping the relations between the Russian Federation and the European Union in that, considering the high degree of mutual dependence, both actors fear that over-dependence or asymmetric dependence could pose a threat to national values and policies because of the leverage that such dependence would entail.

#### **1.3 Energy security in international relations theory**

Various International Relations theories have paid attention to the concept of energy security. The classical theories of International Relations, realism and neorealism, neoliberalism, and constructivism, in particular, have analyzed the issue according to the founding principles of these theories. Being realists focused on the centrality of power in international relations and on the importance of resources and geography to enhancing State power, realism conceives energy as a geostrategic issue, fuel of geopolitical conflict, being both the *casus belli* and the instrument through which war is carried out. According to the realist perspective, indeed, energy security is a matter of political and military security in a world in which sovereign States compete for scarce resources in an anarchical international system, increasing the possibility of international conflicts. As the realist concept of energy security is based on the geographic distribution of resources and power, the realist assumptions regarding energy security, formulated by Daniel Yergin, are:

- "Access to and control of natural resources, of which energy is the most critical, is a key ingredient of national power and national interest
- Energy resources are becoming scarcer and more insecure
- States will increasingly compete for access and control over these resources
- Conflict and war over these resources are increasingly likely, if not inevitable".<sup>63</sup>

Therefore, the realist assumption is that, given the essential role that energy plays in industrial development and maintenance of our standards of living, as traditional energy resources become scarcer every day and are destined to be depleted, conflicts among States over residual energy

<sup>&</sup>lt;sup>62</sup> Yergin D. Energy Security in the 1990s. Foreign Affairs. Vol. 67, No. 1. Fall 1988. P.111.

<sup>&</sup>lt;sup>63</sup>Dannreuther R. International Relations Theories: energy, Minerals and Conflict. Polinares EU Policy on Natural Resources. Working paper n.8. 11.2010. P.3.

resources are meant to intensify in the future. The main realist concerns around energy security include "interstate competition, powerful States, military power, diversifying strategies for providing energy security, and militarization of the problem"<sup>64</sup>. Realist theory asserts that nation-States are the principal actors in international relations, relying on self-help and concerned about national interests in an anarchical international system. In the field of energy security, realist theory maintains the centrality of national governments in regulating the energy sector and energy relations with other countries. The centrality of governments asserted by realists is pertaining to the current state of affairs as today, about 90 percent of the oil sector is controlled by national energy companies and even if privatization is advancing in the management of national resources, "oil and natural gas remain government territory"<sup>65</sup>. Indeed, today, the energy sector is still highly regulated through government intervention "either in the form of support to national enterprises or of control over private companies, due to the importance of energy sources for the development of countries"66. The strong nationalization of oil and gas companies is evident in Russia, whose government owns more than 50 percent of the shares of the largest gas company in the country, Gazprom<sup>67</sup>. As energy constitutes a fundamental part of the country's national security and foreign policy strategy, the government retains control over energy production and transportation, opposing the opening of the national energy market to foreign enterprises. Consequently, Russia's management of national resources can be referred to as "resource nationalism", entailing "limiting the operations of private international oil companies (IOCs) and asserting a greater national control over natural resource development"<sup>68</sup>.

Several historic international events of the 20<sup>th</sup> century come in support of the realist theory, starting from the two World Wars in which the availability of resources determined the physical power of a State on the battlefield and prompted aggressive action in order to ensure enough resources for being able to continue waging war. An important theory concerning the control of scarce resources is the Rimland theory developed by Nicholas Spykman, born in contraposition to the Heartland theory developed by Halford Mackinder. According to the latter, the State that will gain control over the

<sup>&</sup>lt;sup>64</sup> Kilinç-Pala P. B. Approaches in Energy Exclusive Security: Theories of Energy Security and the Dominance of Realism. Politics & Policy. Vol. 49, Issue 3. P. 778.

<sup>&</sup>lt;sup>65</sup> Milina V. Energy Security and Geopolitics. Partnership for Peace Consortium of Defense Academies and Security Studies Institutes. Connections, Vol. 6, No.4. Winter 2007. P.27.

<sup>&</sup>lt;sup>66</sup> De Freitas Peigo N., Ruas J. A. G. Rethinking "energy nationalism" a study of the relationship between nations states and companies in the oil industry. Brazilian Journal of Political Economy. Vol.35 N. 3 (149). July-September 2015. P.559.
<sup>67</sup> 2003-2021. Gazprom. Shares. URL: https://www.gazprom.com/investors/stock/.

<sup>&</sup>lt;sup>68</sup> Stevens P. National oil companies and international oil companies in the Middle East: Under the shadow of government and the resource nationalism cycle. The Journal of World Energy Law & Business. Vol.1, Issue 1. 01.05.2008. P.5.

Heartland, a geographical area encompassing Eastern Europe, Central Asia, the Caspian Region, and Russia, will gain control of the World Island, being located at the center of the world and possessing the right economic potential to develop the capabilities to control the outside<sup>69</sup>. In response to Mackinder's Heartland theory, Spykman developed the Rimland theory, stating that, the state which could gain control of the World Island is not the one controlling the Heartland, but the one dominating the Rimland, the geographic area of the coastal states surrounding the Heartland, including Europe, the Middle East, India, and the Asia Pacific. According to Spykman, who controls the Rimland has the power the choke the Heartland because, contrary to the latter, which is isolated, the Rimland, thanks to its coastal states has control over the sea and, thanks to the existence of the so-called "passage states" which have access to more than one sea, the dominant state will have strategic control over the seas and the movement of resources<sup>70</sup>. The historical and strategic importance of sea routes and chokepoints for economic, energy, and military purposes is undeniable. The Suez Crisis of 1956 is an example of such importance and of how competition for scarce resources can prompt states' aggressive behavior. The Crisis, indeed, came in response to the choice of Egypt's President Gamal Abdel Nasser to nationalize the Suez Canal, which was previously owned by the Suez Canal company, controlled by Britain and France, in response to the Anglo-American refusal to finance the construction of the Aswan High Dam, hoping to finance the project through the Canal tolls. Fearing a closure of the Canal which would have impeded petroleum shipments from the Persian Gulf to Europe, Britain and France, together with Israel, whose passage through the Straits of Tīrān had already been blocked by Egypt, decided to take military action to reappropriate themselves of the Canal and depose Nasser<sup>71</sup>. Other chokepoints, fundamental for the flow of natural resources, have been the object of political tensions and conflicts. With around twenty percent of global oil supplies flowing through the Strait of Hormuz, for an estimated 18.5 million barrels of oil per day in 2016, connecting the Oman Gulf with the Persian Gulf and located near Iranian maritime waters, the latter has been in various occasions the object of disputes between Iran and Western countries and among regional powers<sup>72</sup>. Iran has indeed leveraged its dominant position over the Strait to react to Western sanctions such as in 2011 when, in response to American and European sanctions targeting Iranian

<sup>&</sup>lt;sup>69</sup> Ismailov E., Papava V. The Heartland Theory and the Present-Day Geopolitical Structure of Central Eurasia. Rethinking Central Eurasia. Central Asia-Caucasus Institute Silk Road Studies Program. 06.2020. P.85.

<sup>&</sup>lt;sup>70</sup> Spykman N. J. Geography and Foreign Policy, II. The American Political Science Review. Vol. 32, No.2. American Political Science Association. 04.1938. P.223.

<sup>&</sup>lt;sup>71</sup> Britannica, The Editors of Encyclopaedia. Suez Crisis. Encyclopedia Britannica.19.07.2021.

URL: https://www.britannica.com/event/Suez-Crisis.

<sup>&</sup>lt;sup>72</sup> Granados S. The Strait of Hormuz. Tensions rise in the world's most strategic oil chokepoint. Reuters Graphics. 19.07.2019. URL: https://graphics.reuters.com/MIDEAST-ATTACKS-HORMUZ/0100B0B50N3/index.html.

oil revenues as a deterrence to Iran's nuclear program, Iran threatened to close the Strait, sparking a confrontation of US and Iranian naval exercises<sup>73</sup>. Furthermore, the strategic relevance of the Strait endures as attempts to bypass the chokepoint through alternative ports and pipelines have not yet been successful due to the high number of attacks and sabotages to these infrastructures. The Strait of Malacca, a transit sea route for 60 percent of the world's maritime trade, connecting the Indian Ocean and the Pacific Ocean, is also the object of geopolitical rivalry between India and China, while the South China Sea has become an important sea route for the transport of energy resources, fostering disputes among China, Vietnam, and the Philippines<sup>74</sup>. Another theory that can explain the aggressive behavior of states in the energy security field is the theory of the power vacuum, which can be applied to the power transition from the British Empire to the United States in the Middle East. When the former renounced its control over the Middle East, the United States took over to fill in the power vacuum left by Britain, moved by the desire to ensure energy supplies from the richest region in the world for oil reserves. It has been observed by many that the US intervention in the Gulf War after Iraq's invasion of Kuwait and the 2003 US-led intervention to overthrow Saddam Hussain's regime were prompted by the increasing concerns that the dictator would obstruct American interests in the region. As noted by Nanil Kumar Mohapatra in his paper *Energy security paradigm, structure of* geopolitics and international relations theory: from global south perspectives, two quotes from the Bush H.W and Bush W. administrations are indicative of this intent to protect US energy interests: the first, by President George H.W. Bush himself states that "our jobs, our way of life, our own freedom and the freedom of friendly countries around the world would all suffer if control of the world's greater oil reserves fell into the hands of Saddam Hussein", while Vice-President Dick Cheney in light of the US-led military intervention in Iraq, when addressing the Veterans of Foreign Wars stated that "armed with an arsenal of these weapons of terror, and seated atop ten percent of the world's oil reserves, Saddam Hussein could then be expected to seek domination of the entire Middle East, take control of a great portion of the world's energy supplies, directly threaten America's friends throughout the region, and subject the United States or any other nation to nuclear blackmail" 7576. According to Mohapatra, "the growing competition and bargaining among actors to acquire the

<sup>&</sup>lt;sup>73</sup> Haynes S. The Strait of Hormuz Is at the Center of Iran Tensions Again. Here's How the Narrow Waterway Gained Wide Importance. Time. 23.07.2019. URL: https://time.com/5632388/strait-of-hormuz-iran-tanker/.

<sup>&</sup>lt;sup>74</sup> Mohapatra N. K. Energy security paradigm, structure of geopolitics and international relations theory: from global south perspectives. GeoJournal. Vol.82, No.4. 2017. P. 688.

<sup>&</sup>lt;sup>75</sup> Ibid. P. 688.

<sup>&</sup>lt;sup>76</sup>The Guardian. Full text of Dick Cheney's speech. US news. 27.08.2002.

URL: https://www.theguardian.com/world/2002/aug/27/usa.iraq.

energy resources resulted in what the realists argue in the forms of offensive and defensive realism"<sup>77</sup>. Indeed, in the realist realm, the behavior of states to acquire energy sources can be categorized as offensive or defensive. According to John Mearsheimer, states, concerned primarily about relative gains, take into account their capability and the anarchic nature of the international system and often employ coercive measures to acquire energy resources. As Iraq's invasion of Kuwait in 1990 has energy at the core of the aggression, in that Iraq had accused Kuwait of having extracted Iraqi petroleum and invaded its small neighbor to gain control over Kuwaiti oil wells, threatening also Saudi Arabia's own wells, the war can be analyzed as the employment of forced measures in an anarchical system, therefore, offensive realism. On the other hand, defensive realism believes that states, which in this case take into account absolute gains, often understand that aggressivity and coercion would be counterproductive as it could lead to mutual destruction, therefore, rationally chose to cooperate with each other; in this case, Sino-Russian energy cooperation in the Caspian region in light of the US aggressive behavior is an example of defensive realism<sup>78</sup>.

The liberal tradition, in opposition to the realist one, is based on the premise that states, understanding the counterproductivity of conflicts, choose to cooperate. Liberals do not see states as the sole actors in the international arena but acknowledge the contribution of non-state actors, such as individuals, mass media, multinational and transnational corporations, think tanks, nongovernmental organizations, civil society, terrorist and criminal organizations, trade unions and, most importantly, international institutions, in shaping the international system and influencing the global economy. Power is not the main focus of the liberal tradition, as power alone is not enough to ensure security, therefore, liberals attribute great weight to the power of economics and institutional cooperation. Consequently, in the context of energy security, market forces play a crucial role in shaping the world energy market and the energy dynamics among states and non-state actors, creating mutual dependence in economic and energy relations, and decreasing the prospect of resource wars. Indeed, according to Robert Keohane and Joseph Nye, the energy goals that some states try to achieve through military power could be obtained equally through economic measures and coordination within international institutions<sup>79</sup>. According to neoliberals, the latter, such as the International Monetary Fund, the World Trade Organization, the World Energy Forum, the IEA, OPEC, the Energy Charter Treaty, and other financial institutions and development banks, acquire fundamental importance in shaping the energy market through their power to intervene in market failures, provide

<sup>&</sup>lt;sup>77</sup> <sup>77</sup> Mohapatra N. K. Energy security paradigm, structure of geopolitics and international relations theory: from global south perspectives. GeoJournal. Vol.82, No.4. 2017. P. 689.

<sup>&</sup>lt;sup>78</sup> Ibid.

assistance, set standards and norms for energy cooperation, contributing to lower transaction costs and energy prices, and increase transparency and mutual trust among states<sup>8081</sup>.

In the work Power and Interdependence: World Politics in Transition of 1977, Robert Keohane and Joseph Nye put forward the theory of Complex Interdependence to explain the increasing complexity of international relations in the advent of the era of globalization. As some countries have become increasingly interdependent in the energy field, this theory is applicable to explain the energy relations among international actors, in particular, that of Russia and the European Union. According to the theory of Complex Interdependence, the world is becoming increasingly interdependent due to the rise of non-state actors, such as international institutions and multinational corporations, which create links that transcend state borders and competencies, increasing economic dependence among states and non-state actors and favoring the development of international norms and regimes which create interdependence among them. This interdependence is characterized by mutual vulnerability, pushing states to opt for cooperation as the best possible way to protect common interests and, consequently, promote stability and prosperity of the international systems. According to the authors, in an international system characterized by a mutual dependence, international regimes, and institutions which "compensate traditional military capabilities", high politics of power and national security do not dominate international relations anymore as concerns over low politics, such as trade and welfare, acquire new attention<sup>82</sup>. The three founding features of complex interdependence entail:

- Multiple channels connecting states and non-state actors;
- Absence of hierarchy among issues as complex interdependence blurs the line between domestic and foreign policy and low politics issues acquire greater attention;
- Decrease in the importance of military power as in a system characterized by complex interdependence military force can be insufficient or even inadequate in solving certain issues and conflicts, resulting in cost inefficiency, uncertainty, and possibly disastrous consequences<sup>83</sup>.

<sup>&</sup>lt;sup>80</sup> Proskuryakova L. Updating energy security and environmental policy: Energy security theories revisited. Journal of Environmental Management. Vol. 223. 01.10.2018. P.206.

<sup>&</sup>lt;sup>81</sup> <sup>81</sup> Kilinç-Pala P. B. Approaches in Energy Exclusive Security: Theories of Energy Security and the Dominance of Realism. Politics & Policy. Vol. 49, Issue 3. P. 781.

<sup>&</sup>lt;sup>82</sup> Rana W. Theory of Complex Interdependence: A Comparative Analysis of Realist and Neoliberal Thoughts. International Journal of Business and Social Science. Vol.6, No.2. 02.2015. P.290.

<sup>&</sup>lt;sup>83</sup> Ibid. P. 292.

As interdependence prompts cooperation among international actors, this theory emphasizes that states cannot be concerned with relative gains anymore as a zero-sum game is not possible in a situation of complex interdependence. Cooperation, therefore, is the higher aim in order to ensure that each actor's interests are met, but competition remains, and the possibility of conflict is not erased, as neoliberalism accepts that conflicts constitute a possibility in world politics. This, because interdependence should not be intended as 'evenly balanced mutual dependence' as it is rare to have a situation of symmetric interdependence<sup>84</sup>. Often, interdependence is asymmetric, where one actor is more reliant on the other and the less dependent one can leverage on this asymmetry as a source of influence and manipulation of the more dependent one. As the authors stress, in the context of asymmetric interdependence, the more dependent actor will attempt to escape the dependency so as to protect its integrity and freedom, while the less dependent will try to maintain the dependence and strengthen it to ensure their power over their counterparts. As explained by Keohane and Nye, there are two important dimensions in a relationship of interdependence: sensitivity and vulnerability. The first addresses the "degree of responsiveness within a policy framework – how quickly (...) changes in one country bring costly changes in another and how great (...) the costly effects (are)"<sup>85</sup>. The second entails "the relative availability and costliness of the alternatives that various actors face"<sup>86</sup>. Sensitivity, taking into account the costs to be suffered as a consequence of a reaction from the other side, pushes the actor to reduce its dependency on its counterpart, while, on the contrary, vulnerability, by constituting the "degree of weakness if the other attempts to finish their interdependent relationship", pushes the actor to cooperate and strengthen the dependency of its counterpart to preempt a withdrawal from the relationship<sup>8788</sup>. Interdependence between two actors can be further categorized as positive and negative. In a case of positive interdependence, the two sides willingly depend on each other as the relationship is based on the mutually beneficial and fair exchange of services, while in a situation of negative interdependence, the actors build the relationship on self-interest and attempt to lower their dependency.

The neoliberal theory of Complex Interdependence is close to the realist concept of weaponized interdependence put forward by Henry Farrell and Abraham L. Newman. In their work

<sup>&</sup>lt;sup>84</sup> Ibid. P. 291.

<sup>&</sup>lt;sup>85</sup> Keohane R. O., Nye J. S. Power and Interdependence. HarperCollinsPublisher. Harvard University. 1997. P.12.

<sup>&</sup>lt;sup>86</sup> Ibid. P.13.

<sup>&</sup>lt;sup>87</sup> Proedrou F. The EU-Russia Energy Approach under the Prism of Interdependence. European Security. Vol. 16, Issue 3-4. 2007. P.332.

<sup>&</sup>lt;sup>88</sup> Remizov O. The concept of energy security in the EU-Russia relations: new interdependencies. University of Tartu. 2013. P.7.

*Weaponized Interdependence*, the authors claim that "global economic networks have security consequences, because they increase interdependence between states that were previously relatively autonomous (...) and (which) may leverage network structures as a coercive tool"<sup>89</sup>. Consequently, as interdependence generates power imbalances, asymmetric interdependence paves the way for weaponized interdependence by which a state exercises the coercive authority on the more dependent side, attempting to exploit the vulnerabilities of the latter and interfere with its political orientation<sup>90</sup>.

Neorealist and neoliberalist perspectives have dominated and still dominate, the energy security discourse. However, the two leading perspectives have been criticized for adopting a narrow outlook on the issue as they reserve too much centrality to governmental actors without paying adequate attention to societal and international diversity<sup>91</sup>. Consequently, alternative and more inclusive theories have been developed, aiming to analyze and explain what has been left out by neorealism and neoliberalism. Developed in the late 20<sup>th</sup> century, the constructivist theory has begun to influence society and the conceptualization of international relations in response to realism and liberalism. Constructivism believes in the central role of the individuals who, through their values, identity, history, and practices, contribute to shaping society and inter-state relations<sup>92</sup>. Therefore, when studying energy security, constructivists underline the need to ensure the security of all individuals in society. Furthermore, constructivism holds that institutions are socially constructed, being the result of the beliefs and consensus of individuals, attaching greater importance to subjectivity. Energy security is, therefore, conceived as a socially constructed concept, as a security threat tends to be interpreted differently by the various actors in the international system as a result of different societal values, structures, history, and practices. The idea of the subjective interpretation of the threat has been developed by Barry Buzan and Ole Waever, founders of the Copenhagen School of Security Studies, asserting that securitization entails the recognition of an existential threat to a referent object which needs to be protected through the employment of special measures. However, the identification of an existential threat and the referent object to securitize is a subjective process and, consequently, each actor will interpret the threat, the process of securitization, and the measures to be applied in different manners. Energy, like all other reference objects, is, therefore,

<sup>&</sup>lt;sup>89</sup> Farrell H., Newman A. L. Weaponized Interdependence. How Global Economic Networks Shape State Coercion. International Security. 01.07.2019. P.43.

<sup>90</sup> Ibid. P.45.

<sup>&</sup>lt;sup>91 91</sup> Proskuryakova L. Updating energy security and environmental policy: Energy security theories revisited. Journal of Environmental Management. Vol. 223. 01.10.2018. P.207.

<sup>&</sup>lt;sup>92</sup> Pfaltzgraff R., McClelland C. A. International relations. Constructivism. *Encyclopedia Britannica*. URL: https://www.britannica.com/topic/international-relations/Structures-institutions-and-levels-of-analysis#ref846621.

conceptualized and securitized in different ways depending on the societal interpretation of the issue. Finally, the constructivist approach to energy security focuses on shared values and communication in order to pursue common interests and avoid conflict<sup>93</sup>.

Another school of thought that has paid attention to energy security is the school of international political economy which identifies four primary power structures: security, finance, production, and knowledge, while energy is conceived as a secondary power structure, playing a crucial role in supporting the four primary ones<sup>94</sup>. Similar to realism, this school of thought analyzes international relations in terms of power and resource rivalry, focusing less on state behavior as competition and international dynamics are shaped by market actors. Finally, the geopolitical approach to energy security focuses on the struggle for energy resources, as states attempt to control them and the means of transportation in order to gain geopolitical power over the dependent importers, while the latter enact strategies of diversification of suppliers to avoid excessive influence to be exerted on them<sup>95</sup>. As outlined by Liliana Proskutyakova in her work Updating energy security and environmental policy: Energy security theories revised, "most energy security studies are based on a combination of several theoretical concepts" as each school of thought and international relations theory is often limited to analyzing a small part of the bigger issue, focusing excessively on determined actors, values, and economic and political dynamics. Therefore, energy security cannot be fully analyzed and comprehended based only on one theoretical approach as they tend to complement each other and, when combined, provide a more comprehensive picture of the multifaced concept.

The following chapters will be dedicated to the analysis of the energy security dilemma shaping the relations between the Russian Federation and the European Union and each actor's efforts to improve its energy security in light of the threat posed by the counterpart. Given the multifaceted nature of the concept of energy security and the ways in which it shapes international relations, I will not stick to only one international relations theory, as, by applying different theories to various issues, it will be possible to achieve a more comprehensive picture of the matter. Therefore, during my analysis, energy security will be analyzed in line with the realist perspective, as an object of dispute among states in competition for scarce resources. Daniel Yergin's definition of energy security best embodies the role of energy security in the relations between Russia and the European Union, being

<sup>&</sup>lt;sup>93</sup> Proskuryakova L. Updating energy security and environmental policy: Energy security theories revisited. Journal of Environmental Management. Vol. 223. 01.10.2018. P.206.

<sup>&</sup>lt;sup>94</sup> Ibid.

<sup>&</sup>lt;sup>95</sup> Ibid.

conceptualized as something subject to the interpretation of the individual state according to its needs, national security priorities, and foreign policy which can jeopardize the integrity of the state, risking being coerced and manipulated in its values and politics through the provision or purchase of energy resources. In the energy relations between Russia and the EU, the biggest threat to the EU's energy security are "interruptions, disruptions and manipulations of supply" from Russia, in line with Yergin's idea of shocks as the main threat to a country's energy security. The geopolitical approach can also explain Russia-EU energy dynamics in that, in the context of competition for scarce resources, states will try to strengthen their geopolitical power over dependent countries, as in the case of Russia, while the more dependent side, the EU, will employ alternative strategies to lower this dependence and reduce its vulnerability. This reasoning is reflected also in the neoliberal theory of complex interdependence, which better captures the energy security dynamics in EU-Russia Indeed, as will be explained in the next chapter, EU-Russia energy relations are relations. characterized by roughly symmetric interdependence, in line with Keohane's and Nye's idea that interdependence is not intended as a perfect balance of dependence. The energy interdependence between Russia and EU, recalling the two different types of interdependence, can be defined as negative interdependence, a relationship in which both players are dependent on each other but are motivated by personal gains and self-interest, therefore attempting to exploit the interdependence by shifting the balance in their favor and exert geopolitical influence and control over the more dependent side. Given that the theory of Complex Interdependence is not limited to the idea of cooperation between states but acknowledges the possibility of conflict and the predominance of national interests in international relations, the idea of complex interdependence is not too far from the realist interpretation of energy security and, therefore, I believe that both interpretations can be applicable to the study carried out in this thesis, with energy security being conceptualized in a more realist matter, and, more specifically, with EU-Russia energy relations being analyzed according to the neoliberal theory of Complex Interdependence. In the next chapters, I am going to analyze the energy security dilemma between Russia and the EU, caused by their complex interdependence in the energy field, with a particular focus on the dynamics concerning natural gas, the fossil fuel at the center of the EU-Russia energy security dilemma. I will then continue with an analysis of the strategies that the two actors are employing in order to lower their dependence and vulnerability. For the purpose of this analysis, the European Union will be treated as a unitary supranational actor, therefore looking at the decision taken by the EU regarding energy and the organization's relations with Russia. Nevertheless, when paying attention to the strategies employed to decrease dependence on Russia, I will also take into consideration the national level of the European Union in order to understand the reason for the internal contradiction which, prompted by the disagreement among the

EU countries, could jeopardize the attempts of the Union to lower its dependence on Russia and its image as a unitary, coherent actor in the international arena. The purpose of this thesis is to understand the historic, economic, and political reasons which have fueled the energy security dilemma between Russia and the EU, particularly since the beginning of the 21<sup>st</sup> century and, more importantly, why, despite the fear of increasing vulnerability and the efforts to reduce dependence, the two actors, and particularly the EU which prioritizes ending its reliance on its resource-rich neighbor, are simultaneously entrenching their dependence.

## Interdependence and the energy security dilemma between Russia and the EU

In the present chapter, I am going to analyze the energy ties between Russia and the EU and the origin of the energy security dilemma. The two actors are indeed interdependent in the energy field, as Russia is the largest supplier of hydrocarbons to the Union, while the EU is Russia's largest customer for energy resources. The two actors are, however, wary of this interdependence, as the increasing mistrust in political relations has prompted concerns about the latter shifting in favor of one of the two players, resulting in excessive power over the other. The fear that interdependence could become asymmetric has prompted an energy security dilemma between Russia and the EU, for which both are trying to reduce their dependence to maximize their energy security, prompting, in turn, fears from the other about becoming the more reliant and vulnerable side. As mentioned above, the energy security dilemma has been fueled by deteriorating political relations, stemming from a divergence in political stances, which have hindered the process of cooperation in the energy field. Therefore, in the present chapter, I will provide a brief overview of the points of convergence and divergence in the two actors' political interests, their energy policy priorities, and the attempts undertaken in the past to develop a framework of cooperation in the energy field, which has not been successful in light of the declining political relations. In particular, I have paid special attention to the role of Ukraine in worsening relations between Russia and the EU. I will indeed proceed to analyze the role of the 2006 and 2009 gas disputes between Russia and Ukraine in fueling their energy security dilemma, the energy dimension of the crisis of Crimea, analyzed under the realist outlook of competition over resources between great powers, and its role in catalyzing the two actors' strategies to reduce their mutual dependence.

#### 2.1 Energy interdependence as the origin of the energy security dilemma

Energy cooperation between Russia and the European Union dates back to the end of the 19<sup>th</sup> century under the Russian Empire, which already delivered oil to the European empires. Energy cooperation was resumed during the 1950s with the Soviet Union, which had become the world's second manufacturer of oil after the USA<sup>96</sup>. In the 1970s, the first Soviet pipelines to Europe were constructed, the Soyuz (COiO3) and the Brotherhood (Братство), both passing through Ukraine. The first pipeline originated in Central Asia and was supplied by gas from Kazakhstan, Turkmenistan, and Uzbekistan<sup>97</sup>. The Soyuz transported supplies to the countries of the Warsaw Pact, while the later-

<sup>&</sup>lt;sup>96</sup> Gusev A. Energy Relations between the European Union and Russia: content, problems, prospects. Institut Européen des Hautes Etudes Internationales. 2008..

<sup>&</sup>lt;sup>97</sup> Kandiyoti R. Powering Europe, Russia, Ukraine and the Energy Squeeze. Palgrave Macmillan, New York. 2015.

constructed Friendship pipeline (Дружба), spurring from the Soyuz, would reach countries in Southern-Eastern Europe. Later in the 1970s, the Brotherhood pipeline was launched, drawing natural gas from Western Siberia. Most of the gas transported to Europe, nowadays, still flows through these pipelines. During the Cold War, European dependence on fossil fuels imports from the Soviet Union was much lighter than it is today. Firstly, European countries also benefitted from European production, such as Norway and the Netherlands and, secondly, Europe's energy needs were lower than today. Consequently, the Soviet Union supplied only 23 percent of western European countries' gas imports, about half of what the EU imports today<sup>98</sup>. Furthermore, the Soviet Union was not perceived as an unreliable supplier, as it is the case for Russia after the gas disputes with Ukraine, as, even during the midst of the Cold War, political disagreements did not lead to supply disruptions. The dependence on Russia for fossil fuel supplies has grown steadily in the post-Soviet period, particularly as a consequence of the EU's enlargements in Eastern Europe which integrated into the EU former Soviet Republics and satellite countries, such as the Baltic States, the Check Republic, Slovakia, Hungary, Romania, and Bulgaria, which were almost exclusively dependent on imports of Russian energy. The inclusion of Eastern and Central European countries dependent on Russian energy has significantly increased the EU's concerns for its energy security, particularly in the aftermath of the gas disputes and the political tensions with Ukraine resulting in cutoffs of supplies to the EU Member States. These events prompted the perception that Russia had attempted using its resources as a weapon and sparked fear in the Eastern European countries which are now increasingly pushing for a lower dependence of the EU on Russia's hydrocarbons.

EU-Russia energy cooperation has transformed over the years along with the political transformation that Europe and the former-Soviet republics have undergone since the end of the Cold War. Nowadays, the European Union is one of the major energy importers in the world, with a dependency rate on extra-EU energy imports of 61 percent, meaning that more than half of the EU's energy needs are compensated with energy resources coming from non-EU countries<sup>99</sup>. Petroleum products, composed mainly of crude oil, are the energy source most imported by the EU, with around 73 percent of the EU's energy imports, followed by gas, for around 27 percent, and solid fossil fuels, including coal and its byproducts, accounting for about 6 percent of the EU's energy imports <sup>100101</sup>. The Russian Federation and the European Union are interdependent in the energy sector, being the

<sup>&</sup>lt;sup>98</sup> Krickovic A. When Interdependence Produces Conflict: EU- Russia Energy Relations as a Security Dilemma. Contemporary Security Policy. Vol.36, No. 1. Taylor and Francis. 2015.P.9.

<sup>&</sup>lt;sup>99</sup> Eurostat. From where do we import energy?. URL: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html. <sup>100</sup> *Ibid.* 

<sup>&</sup>lt;sup>101</sup> Eurostat. EU imports of energy products – recent developments. 10.2021. URL:https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU\_imports\_of\_energy\_products\_-recent\_developments#Overview.

former the biggest supplier of the EU's energy imports, and the latter the main receiver of Russia's energy exports. Russia is, indeed, the largest supplier of fossil fuels to the Union, accounting, in 2020, for 43,4 percent of the share of extra-EU imports of natural gas, 25.5 percent of the extra-EU imports of petroleum oil, while, as of 2019, solid fuel from Russia accounted for 46.7 percent of Extra-EU imports<sup>102103</sup>. Concerning natural gas, Russia is undoubtedly the largest exporter to the EU, followed by Norway which accounts for 20 percent of the EU's extra-EU gas imports<sup>104</sup>. The share of extra-EU imports of natural gas from Russia has also increased during the past decade, increasing by more than ten percentage points from 2010 to2019, from 35 percent to 45.5. percent, with a slight decrease to 43 percent in  $2020^{105}$ . Russia is also the largest supplier of petroleum oil to the Union, accounting for 25.5 percent of extra-EU exports in 2020 followed by the United States with 9.5 percent of extra-EU oil imports, as reported in *Figures 4* and 5.





Source: Eurostat database (Comext) and Eurostat estimates

 $<sup>^{102}</sup>$  Ibid.

<sup>&</sup>lt;sup>103</sup> Eurostat. From where do we import energy?. URL: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html.

<sup>&</sup>lt;sup>104</sup> *Ibid*.

<sup>&</sup>lt;sup>105</sup> Elagina D. Extra-EU natural gas import share from Russia 2010-2020. Statista 2021. 16.06.2021. URL: https://www.statista.com/statistics/1021735/share-russian-gas-imports-eu/.

<sup>&</sup>lt;sup>106</sup> Eurostat. EU imports of energy products – recent developments. 10.2021. URL:https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU\_imports\_of\_energy\_products\_-\_recent\_developments#Overview.

Figure 5: Extra-EU imports of petroleum oil by partner. 2019 and 2020 (share % of trade in value)<sup>107</sup>



Source: Eurostat database (Comext) and Eurostat estimates



Figure 6: Share of extra-EU natural gas imports from Russia from 2010 to 2020<sup>108</sup>.

<sup>&</sup>lt;sup>107</sup> *Ibid*.

<sup>&</sup>lt;sup>108</sup> Elagina D. Extra-EU natural gas import share from Russia 2010-2020. Statista 2021. 16.06.2021. URL: https://www.statista.com/statistics/1021735/share-russian-gas-imports-eu/.

The dependence on Russian fossil fuel imports is not homogenous across the Member States of the European Union. Indeed, some countries, particularly the ones closer to the Russian border, record a higher dependence than those located further away. By looking at the statistics provided by Eurostat, it is possible to notice that, on the one hand, countries like Bulgaria, the Czech Republic, Estonia, Latvia, Hungary, Austria, Romania, Slovenia, Slovakia and Finland, import from 75 to 100 percent of their natural gas imports from Russia, making them almost completely dependent on the Russian supplies of natural gas and highly vulnerable to disruptions and interruptions of supplies. On the other hand, the largest importers of natural gas in the EU, namely Germany, Spain, Italy, and the Netherlands, do not account for such a high share of imports from Russia, with Spain and the Netherlands importing between 0 and 25 percent, while Italy and Germany account for higher shares, respectively between 25 and 50, and between 50 and 70 percent. By looking at Figure 7, on the contrary, it is noticeable that the dependence of the EU Member States is lower for petroleum oil than for natural gas, as the percentages of dependence are generally lower and with fewer countries featuring an almost total dependence on Russian supplies of petroleum oil, such as Estonia, Hungary, Slovakia, and Finland. Finally, by analyzing the Eurostat data, it is possible to notice that four countries, namely Estonia, Hungary, Slovakia, and Finland, retain their share of imports of oil and gas from Russia from 75 to 100 percent, making them almost completely dependent in both sectors.

	Share (%) of Russia in national extra-EU imports	
Country	Petroleum oils	Natural gas
Belgium	25-50	0-25
Bulgaria	50-75	75-100
Czechia	25-50	75-100
Denmark	0-25	0-25
Germany	25-50	50-75
Estonia	75-100	75-100
Iceland	0-25	0-25
Greece	0-25	50-75
Spain.	0-25	0-25
France	0-25	0-25
Croatia	0-25	n.a.
Italy	0-25	25-50
Cyprus	n.a.	n.a.
Latvia	n.a.	75-100
Lithuania	50-75	25-50
Luxembourg	0-25	n.a.
Hungary	75-100	75-100
Malta	n.a.	0-25
Netherlands	25-50	0-25
Austria	0-25	75-100
Poland	50-75	50-75
Portugal	0-25	0-25
Romania	25-50	75-100
Slovenia	0-25	75-100
Slovakia	75-100	75-100
Einland	75-100	75-100
Sweden.	0-25	50-75

Figure 7: Share of Russia in national extra-EU imports, 2020 (share % of trade in value)<sup>109</sup>.

Source: Eurostat database (Comext) and Eurostat estimates

While the EU is highly dependent on the oil and gas supplies coming from Russia, on its part, Russia, being a resource-rich country, as the second-largest producer of dry natural gas and first-largest producer of crude oil in the world, is highly dependent on the revenues coming from its fossil fuels exports, which accounted for around 63.2 percent of the country's exports in 2017 and contributed to around 36 percent of the federal budget in 2016<sup>110</sup>. Considering the high dependence of the Russian economy on the revenues from its fossil fuel exports, the EU, and the European

<sup>&</sup>lt;sup>109</sup> Eurostat. EU imports of energy products – recent developments. 10.2021. URL: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU\_imports\_of\_energy\_products\_-\_recent\_developments#Overview.

<sup>&</sup>lt;sup>110</sup>OECD. Russian Federation. Fossil Fuel Support Country Note. June 2020. URL:<u>https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwi2s4uuxMzyAhWh\_rsI</u>HQ8ZDiMQFnoECDgQAQ&url=httppercent3Apercent2Fpercent2Fstats.oecd.orgpercent2Fwbospercent2Ffileview2.as pxpercent3FIDFilepercent3D09aac246-c7ef-4159-898e-2a287deb3341percent2520percent2520&usg=AOvVaw0jK-UYWM8uIrigHzzeohoj.
countries more broadly, represent a necessary market for the Russian fossil fuels, being the vast majority of gas and oil exports directed there. In 2016, almost 90 percent of Russia's natural gas exports were delivered to Europe, being Germany, Italy, Belarus, Turkey, and the United Kingdom the biggest importers<sup>111</sup>. The dependency on the European market, particularly for natural gas exports, can be observed by looking at Gazprom's statistics. Gazprom is the largest gas-producing company in Russia, accounting for more than half of the total production of the country. In 2018, 99 percent of Gazprom's exports, "a total of 200.8 billion cubic meters", were delivered to Europe, with 81 percent exported to Western Europe and 19 percent to Central Europe112. In 2019, the share reached 100 percent, with 198.97 bcm exported, of which 77 percent were delivered to Western Europe, and 23 percent to the Central European States<sup>113</sup>.

By looking at the above-reported data, it is possible to notice that Russia and the European Union are interdependent in the energy field. Energy is, however, the only field where the two actors' relationship is characterized by roughly symmetric interdependence. The problem in this relationship is that energy is the only area where the two players are interdependent, as in other fields such as economy and finance, the two actors are not so intertwined, as in the case of the EU and the United States which are strongly connected and interdependent in trade, finance, and security. Russia and the EU are also closely connected through trade which, however, is mostly characterized by the trade of energy resources. Consequently, the relationship between Russia and the EU, according to Andrej Krickovic, cannot be defined as a relationship of complex interdependence, as this entails a type of interdependence spanning across different fields<sup>114</sup>. In the case of complex interdependence, given the high level of interconnection, cooperation between two actors is facilitated and concerns about vulnerability are lower because there is less probability of the interdependence becoming asymmetric and even in the case that this would happen in one area, the interdependence in other realms ensures the endurance of the relationship. On the other hand, EU-Russia relations are characterized by interdependence only in the energy field which, according to the realist perspective, tends to limit the ability of a state to freely pursuit its national goals and can prompt concerns about a state's vulnerability to the actions of its counterpart and about power disparities, therefore increasing the likelihood of antagonist and uncooperative behavior<sup>115</sup>. In this case, interdependence can become a

<sup>&</sup>lt;sup>111</sup> U.S. Energy Information Administration. Country Analysis Brief: Russia. 31.10.2017. URL:https://www.eia.gov/international/analysis/country/RUS

<sup>&</sup>lt;sup>112</sup> Gazprom exports 2006-2020. Gas supplies to Europe. Delivery statistics. URL: http://www.gazpromexport.ru/en/statistics/

<sup>&</sup>lt;sup>113</sup> 2006-2021 Gazprom Export. Delivery Statistics. URL: http://www.gazpromexport.ru/en/statistics/.

<sup>&</sup>lt;sup>114</sup> Krickovic A. When Interdependence Produces Conflict: EU- Russia Energy Relations as a Security Dilemma. Contemporary Security Policy. Vol.36, No. 1. Taylor and Francis. 2015.P.9.

<sup>&</sup>lt;sup>115</sup> *Ibid*.P.5.

source of conflict between states which are afraid of the partner's leverage on their dependence. This concern is strongly due to mutual mistrust and the fear that the relationship will become increasingly asymmetric in favor of the counterpart. This is the case for EU-Russia energy interdependence, which has given life to an energy security dilemma. The two actors, fearing that the balance may shift in favor of the other, attempt to decrease their dependency or ensure the reliance of the partner. However, when trying to decrease its dependence, each actor jeopardizes the energy security of the other, by attempting to transform the relationship into asymmetric interdependence. Therefore, in fear of Russia using fossil fuels, particularly gas, as a political weapon, the EU has devised new strategies to reduce its dependence by looking at other markets such as the United States and countries in Central Asia and the Caucasus, sparking Russia's fear of losing its biggest customer and a substantial part of fossil fuel revenues, pushing it to look to other markets for new customers, in turn fueling the EU's fear of losing access to necessary energy supplies. The fear of interdependence becoming asymmetric with time becomes lower when there is a substantial level of interdependence also in other areas. While this is not the case between Russia and the European Union, a Union Member State, namely Germany, has built a level of interdependence with Russia that does not stop at the energy field. Indeed, while economic cooperation has advanced between Russia and the EU as a whole, Germany has succeeded in establishing stronger ties also in trade and finance. This economic interdependence provides an explanation for Germany's lower concerns about energy interdependence with Russia, being their relationship closer to one of complex interdependence than that of other Member States and the EU altogether. This is why Germany has manifested stronger support than other Member States for the South Stream pipeline project and the construction of the Nord Stream I and II, as asymmetric interdependence in the energy field could be compensated through the positive spillover from other areas. Germany's condescension to these pipeline projects, which increases the vulnerability of the European Union to Russia's supply, has been met with strong criticism from other Member States, in particular Central and Eastern European countries, such as Poland whose Defense Minister, Radek Sikorsky, when referring to the Nord Stream project, has accused Russia and Germany of having signed another "Stalin-Ribbentrop Pact", jeopardizing the national security of Poland and the other Member States in Eastern Europe<sup>116</sup>.

<sup>&</sup>lt;sup>116</sup> *Ibid.* P.8.

## 2.2 The EU's energy policy priorities

In 2019, the European Union recorded an energy dependency rate of around 61 percent, a five-point increase compared to the year 2000, when the dependency rate was at 56 percent<sup>117</sup>. In light of this increase, the EU had to review its energy priority, with the awareness that dependency concentrated on few partners could pose a threat to European energy security and internal stability. Consequently, the Union has developed several priorities regarding its energy policy, internally and externally. Internally, the main objective of the European Union is to develop a single liberalized electricity and gas market (SLEGM) in order to foster competition among energy companies and a consequent reduction in prices and homogenization of energy tariffs that would foster European energy security by also encouraging the internal redistribution of gas supplies in cases of shortages or disruptions, to safeguard especially those countries more dependent on supplies from few exporters such as the Central and Eastern European Countries which are extremely dependent on Russia<sup>118</sup>. Indeed, as pointed out by Pierre Noel, in its work Beyond dependence: how to deal with Russian gas, "the most efficient solution to the Russian gas problem lies not in the development of an external energy policy, but in the further restructuring of the EU's internal gas market"<sup>119</sup>. In the 2006 Green Paper A European Strategy for Sustainable, Competitive and Secure Energy, the EU Commission has asserted that the achievement of a "fully competitive internal energy market" is the only way to ensure that "EU citizens and businesses enjoy all the benefits of security of supply and lower prices"<sup>120</sup>. However, as argued by Nikolay Kaveshnikov, the excessive reliance on external energy supplies hinders the creation of a truly liberalized energy market as, in light of the limited availability of supplies, "imports go through former national monopolies, which enjoy the well-established business contacts with external suppliers", hindering the participation of new actors in the energy market, limiting competition<sup>121</sup>. This restructuring, however, has not been completely successful as it did not achieve homogenization of the European gas market but, instead of a unified market, independent liberalized national markets developed in the EU Member States, featuring a high level of

<sup>&</sup>lt;sup>117</sup> Eurostat. From where do we import energy?. URL: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html.

<sup>&</sup>lt;sup>118</sup> Kaveshnikov N. The issue of energy security in relations between Russia and the European Union. European Security. Vol.19, Issue 4. 22.12.2012. P.591.

<sup>&</sup>lt;sup>119</sup> Noel P. Beyond dependence: how to deal with Russian gas. European Council on Foreign Relations. ECFR Policy Brief. London.11. 2008. P.8.

<sup>&</sup>lt;sup>120</sup> Commission of the European Communities. A European Strategy for Sustainable. Competitive and Secure Energy. Green Paper. 08.03.2006. Brussels. P.3.

URL:https://europa.eu/documents/comm/green\_papers/pdf/com2006\_105\_en.pdf.

<sup>&</sup>lt;sup>121</sup> Kaveshnikov N. The issue of energy security in relations between Russia and the European Union. European Security. Vol.19, Issue 4. 22.12.2012. P.593.

regulation by national governments which tend to endorse protectionist policies , and are mostly controlled by national companies which in 2008, controlled over 90 percent of the gas retail market in seven Member States and between 70 and 90 percent in other six<sup>122</sup>. In 2009, in order to improve the liberalization of the EU's energy market, the Union approved a bundle of legislation, known as the Third Energy Package, covering five specific areas, namely unbundling, independent regulators, the Agency for the Cooperation of Energy Regulators, cross-border cooperation, and open and fair retail markets, to further liberalize the EU's gas and electricity market<sup>123</sup>. The Third Energy Package, as will be explained in further detail in the next chapters, has been challenged by Russia, claiming that its clauses, particularly the unbundling rules, were aimed at hindering the participation of Russian companies in the EU's energy market and at undermining Russia's delivery and transport systems to the EU.

On February 25<sup>th</sup>, 2015, the European Union approved the Energy Union Strategy, a pivotal objective of the Junker Commission, which aims at ensuring "secure, sustainable, competitive and affordable energy" for European consumers through five principal dimensions<sup>124</sup>:

- The first objective of the Energy Union is that of ensuring security, solidarity, and trust through diversification of energy resources and suppliers and increased cohesion and collaboration among the Union's Member States;
- The second objective remains the development of a fully integrated energy market without technical or regulatory barriers, which allows the unrestricted movement of energy resources across the EU's countries;
- The third objective aims at reaching energy efficiency. In 2018 the EU set ambitious targets for lowering primary and final consumption respectively to 1,273 Mtoe and 956 Mtoe for 2030 in order to decrease the Union's dependency on hydrocarbon imports, stimulate the job market, and safeguard the environment by reducing emission<sup>125</sup>;
- The fourth dimension is dedicated to climate action, through the quick ratification and implementation of the 2014 Paris Agreement and continuing the efforts to shift to renewable energy and uphold the EU's guiding role in the renewable field;

<sup>&</sup>lt;sup>122</sup>*Ibid.* P.591.

<sup>&</sup>lt;sup>123</sup> European Commission. Third Energy Package. 05.03.2021. URL:https://ec.europa.eu/energy/topics/markets-and-consumers/market-legislation/third-energy-package\_en.

<sup>&</sup>lt;sup>124</sup> European Commission. Energy Union. 20.05.2021. URL: https://ec.europa.eu/energy/topics/energy-strategy/energy-union\_en.

<sup>&</sup>lt;sup>125</sup> European Commission. Energy efficiency targets. 09.07.2021. URL:https://ec.europa.eu/energy/topics/energy-efficiency/targets-directive-and-rules/eu-targets-energy-efficiency\_en.

- The fifth objective aims at increasing investment in research for the development of clean energy technologies and to boost innovation to lead the energy transition and increase competitiveness<sup>126</sup>.

Externally, the European Union is preoccupied with securing reliable energy supplies to meet the growing energy demand at affordable prices, in line with the above-mentioned Statement of the EU Commission in its 2006 Green Paper. The EU's external goals in ensuring its energy security can be listed as follows:

- Expand the EU's energy dialogue with global major suppliers and consumers in order to guaranteed stable supply flows, share technology information on energy-saving systems, and coordinate action to develop diversification through alternative energy sources;
- Export the EU's model of the internal energy market to its neighboring countries, a strategy initiated through the establishment of the Energy Community to export the internal energy legislation to the countries of the Common Neighborhood;
- Increase the diversification of energy resources and suppliers to ensure access to reliable energy flows;
- Maintain an active EU energy policy in partner countries so as to provide access to the European energy companies to foreign energy markets<sup>127</sup>.

The European Union is also a party to the Energy Charter Treaty, an international agreement signed in December 1994, which entered into force in April 1998, comprising of fifty-three signatories. The Treaty provides a multilateral framework for energy cooperation among the contracting parties with a view of promoting energy security and stability through "the operation of more open and competitive energy markets while respecting the principles of sustainable development and sovereignty over energy resources"<sup>128.</sup> The provisions of the Treaty focus on the following four macro-areas:

- "the protection of foreign investments, based on the extension of national treatment, or mostfavoured nation treatment (...) and protection against key non-commercial risks;

<sup>&</sup>lt;sup>126</sup> European Commission. Energy Union. 20.05.2021. URL: https://ec.europa.eu/energy/topics/energy-strategy/energy-union\_en.

<sup>&</sup>lt;sup>127</sup> Kaveshnikov N. The issue of energy security in relations between Russia and the European Union. European Security. Vol.19, Issue 4. 22.12.2012. P.593

<sup>&</sup>lt;sup>128</sup>European Commission. Energy Charter. 17.02.2021. URL:https://ec.europa.eu/energy/topics/international-cooperation/international-organisations-and-initiatives/energy-charter\_en.

- non-discriminatory conditions for trade in energy materials, products and energy-related equipment based on WTO rules, and provisions to ensure reliable cross-border energy transit flows through pipelines, grids and other means of transportation;
- the resolution of disputes between participating states, and in the case of investments between investors and host states;
- the promotion of energy efficiency, and attempts to minimise the environmental impact of energy production and use"<sup>129.</sup>

The Energy Charter Treaty constitutes an element of friction between the EU and Russia, being the latter one of the signatories of the treaty but having never ratified it. The EU has indeed pushed for Russia's ratification of the Treaty in order to establish more open and transparent EU-Russia energy relations, fostering economic competition and rely on the Treaty's dispute settlement mechanism. However, Russia's ratification does not seem feasible, especially after the Federation expressed its intent not to become a contracting party in 2009, opposing the provisions requiring third-party access to Russian pipelines, the legal instrument's incapability to deal with transit bans imposed by contracting parties, the disfavoring of the system of long-term supply contracts, the favored access for European companies to Russian pipelines and the unfavorable conditions for Gazprom's access to European pipelines, and the inefficiency of the ECT settlement mechanism in providing a settlement in the transit disputes between Russia and Ukraine <sup>130131</sup>.

# 2.3 Russia's energy policy priorities

Besides being a major driver of the country's socio-economic development, the Russian government does not treat energy merely as an economic matter, but it is highly politicized, as an important foreign policy tool to strengthen the country's role in the international arena, as mentioned in the National Security Strategy Act to 2020 of 2003<sup>132</sup>. Russia's energy policy has a relevant impact on the national economy and on the country's foreign policy, therefore, energy plays a big role in shaping the country's National Security and Foreign Policy Strategies. Innovation is a vital element for the Russian energy industry which suffered a substantial decrease in investments during the 90s that lead to a relevant slowdown in exploration and a high number of unexplored reserves. Investment and innovation remain a primary concern for the Federation, which has remarked the need for further development of the transport and energy infrastructure in the Russian National Security Strategy of

<sup>&</sup>lt;sup>129</sup> International Energy Charter. The Energy Charter Treaty. 18.02.2019.

URL: https://www.energycharter.org/process/energy-charter-treaty-1994/energy-charter-treaty/.

<sup>&</sup>lt;sup>130</sup> Pominova I. Risks and Benefits for the Russian Federation from Participating in the Energy Charter: Comprehensive Analysis. Energy Charter Secretariat Knowledge Center. 2014. P.7.

<sup>&</sup>lt;sup>131</sup> Mironova I. Russia and the Energy Charter Treaty. International Energy Charter. 07.08.2014.

<sup>&</sup>lt;sup>132</sup> Mohapatra N. K. Energy Security and Russia's Foreign Policy. 05.2013

2021. In this document, the country reasserts the importance of the Russian fuel and energy complex, whose structures are treated as a referent object to be securitized against the terrorist threat, and underlines the progress made in increasing the country's energy security despite the pressure exerted by the external sanctions<sup>133</sup>. Energy also plays a key role in the development of the Foreign Policy Concept of the Russian Federation. The 2016 Foreign Policy Concept, the last issued, retains the importance of energy security in the country's international effort to ensure that its interests are taken into account by the international community and reaffirms the importance of cooperation with the world's major energy producers and dialogue with the consumers and transit countries<sup>134</sup>.

The energy policy of the Russian Federation is set out in the Energy Strategy, a periodically issued document highlighting the priorities of the country in the energy sector, its prospects of development, and the requirements to fulfill in order to reach the objectives set out in the Strategy. In April 2020, the incumbent Minister of Energy and Deputy Prime Minister of the Russian Federation, Aleksandr Novak, presented the Russian Energy Strategy up to 2035. During the presentation, Novak outlined Russia's unique role in the world energy sector, being at the same time "a major producer, consumer, and exporter of all types of hydrocarbon resources (...) retaining its leading position in the world in the oil, gas, and coal industry, nuclear energy, electric power and hydropower"<sup>135</sup>. The Strategy acknowledges that the Russian fuel and energy complex is the main driver of the country's economic growth, providing "almost a quarter of the federal budget revenues" and will become "the central pillar of Russia's economy in the upcoming decade"<sup>136137</sup>. Reflecting the Energy Union Strategy, the Russian Energy Strategy outlines five main objectives for the period up to 2035:

- The first priority is to meet the country's need for its socio-economic development through the modernization of the fuel and energy complex;
- The second objective is the diversification of exports, particularly through the increased investment in the industry of Liquified Natural Gas (LNG), whose production is expected to

 <sup>&</sup>lt;sup>133</sup> Президент России. Указ Президента Российской Федерации от 02.07.2021 г. № 400. О Стратегии национальной безопасности Российской Федерации. 2.07.2021. URL:http://www.kremlin.ru/acts/bank/47046/page/1.

<sup>&</sup>lt;sup>134</sup> МИД России. Foreign Policy Concept of the Russian Federation approved by President of the Russian Federation Vladimir Putin on November 30,2016. 01.12.2016. URL: <u>https://www.mid.ru/en/foreign\_policy/official\_documents/</u>/asset\_publisher/CptICkB6BZ29/content/id/2542248.

<sup>&</sup>lt;sup>135</sup> Правительство России. Заседание Правительства. 02.04.2020. URL: http://government.ru/news/39341/.

<sup>&</sup>lt;sup>136</sup> Sukhankin S. Russia's Energy Strategy 2035: A Breakthrough of Another Impasse?. The Jamestown Foundation. Eurasia Daily Monitor. Vol. 17, Issue 78. 02.06.2020.

<sup>&</sup>lt;sup>137</sup> Правительство России. Заседание Правительства. 02.04.2020. URL: http://government.ru/news/39341/.

rise by 3.4 times by 2024, through the completion of the LNG terminals in the Yamal and Gyda peninsulas<sup>138</sup>;

- The third priority is the development, modernization, and increased availability of the fuel and energy complex infrastructure, particularly in the Arctic region, in Eastern Siberia and the Far East;
- The fourth objective entails technological independence and increased competitiveness of the fuel and energy sector through national technology production;
- The fifth objective is the digital transformation of the fuel and energy complex industries, entailing the digitalization of the fuel and energy complex, a greater role of artificial intelligence, and the development of the National Technological Initiative for the creation of a national cybernetic market within 2035<sup>139140</sup>.

Internally, Russia has also enacted measures to increase the liberalization of the energy market in some areas like the electricity sector, while at the same time it has increased government control in others. The oil sector is less regulated than the gas one, with government-controlled companies managing about 30 percent of production and around 20 percent of oil refinery<sup>141</sup>. On the contrary, government influence in the gas sector is consistently higher, as the gas sector remains the least competitive due to the predominance of Gazprom, which, in 2016, was responsible for the production of about two-thirds of the country's total natural gas output<sup>142</sup>. In 2016, the gas giant produced 14.8 trillion cubic feet of natural gas, with the second and third-largest producers, namely Novatek and Rosneft, producing 2.4 trillion cubic feet, less than six times the amount produced by Gazprom<sup>143</sup>. The gas giant holds a dominant position in the downstream and upstream production particularly, thanks to its monopolistic control of the gas pipeline export, and has exerted its influence to hinder "third-party access to transmission and distribution pipelines and slow down the development of competitive wholesale gas market"<sup>144</sup>. The increased government control over the energy industry which began around 2003, was manifested in 2007 with the cession of the construction of the Sakhalin-2 LNG project worth 22 billion dollars from Royal Dutch Shell to Gazprom, following

<sup>&</sup>lt;sup>138</sup> Sukhankin S. Russia's Energy Strategy 2035: A Breakthrough of Another Impasse?. The Jamestown Foundation. Eurasia Daily Monitor. Vol. 17, Issue 78. 02.06.2020.

<sup>&</sup>lt;sup>139</sup> Ibid

<sup>&</sup>lt;sup>140</sup> Правительство России. Заседание Правительства. 02.04.2020. URL: http://government.ru/news/39341/.

<sup>&</sup>lt;sup>141</sup> Kaveshnikov N. The issue of energy security in relations between Russia and the European Union. European Security. Vol.19, Issue 4. 22.12.2012. P.595.

<sup>&</sup>lt;sup>142</sup> U.S. Energy Information Administration. Country Analysis Brief: Russia. 31.10.2017. URL:https://www.eia.gov/international/analysis/country/RUS.

<sup>&</sup>lt;sup>143</sup> *Ibid*.

<sup>&</sup>lt;sup>144</sup> Kaveshnikov N. The issue of energy security in relations between Russia and the European Union. European Security. Vol.19, Issue 4. 22.12.2012. P.595.

pressure from and disagreement with the Russian government which eventually succeeded in exerting national control over Russia's resources<sup>145</sup>. In 2008, with the approval of the Federal Law No. 57 of 2008 on the Procedure for Making Foreign Investments in Companies which are of Strategic Importance for Ensuring the Country's Defense and State Security, prospects of foreign participation to Russia's energy projects were further reduced as the law substantially limits the involvement of foreign companies in sectors considered of strategic importance for national security, limiting foreign investments in these areas by establishing "withdrawals of a restrictive nature for foreign investors and for a group of persons that includes a foreign investor when they participate in the authorized capitals of business associations of strategic importance in the amount of 25 or more per cent of the balance-sheet value of the assets of the company of strategic importance and/or conclude other transactions, commit other actions resulting in the establishment of control of the foreign investors over such companies"<sup>146</sup>.

Concerning its external energy relations, the goals of the Russian Federation are:

- Reinforcing energy relations with Europe as its primary export market while simultaneously develop alternative supply routes to the Asian countries such as China;
- Develop a market-oriented energy relationship with the countries of the Commonwealth of Independent States (CIS) and increase control over energy infrastructure in the Central Asian countries so as to secure hydrocarbons delivery to Russia from this area;
- Ensure stability and profitability in the relations with transit countries and develop alternative ways that allow to bypass uncooperative countries and reach the consumers directly, a move that significantly decreases the bargaining power that transit countries retain in their energy relations with Russia;
- Increase diversification of energy products by increasing electricity exports, develop LNG terminals, export energy technology and constructions services of nuclear power plants, being Russia one of the world's leading producers of nuclear power, a strategy that is contributing to enhancing the Russian presence in the African continent in competition with China, the United States, and the EU<sup>147</sup>.

<sup>&</sup>lt;sup>145</sup> Busvine D. Shell offers control of Shakhalin-2 to Gazprom. Reuters.20.01.2007.

URL:https://www.reuters.com/article/businesspro-russia-shell-dc-idUSL1167406020061211.

<sup>&</sup>lt;sup>146</sup> Asia Pacific Energy Portal. RUSSIAN FEDERATION: Federal Law No. 57 of 2008 on the Procedure for Making Foreign Investments in Companies which are of Strategic Importance for Ensuring the Country's Defense and State Security (2020 Ed.). 25.05.2011. URL:https://policy.asiapacificenergy.org/node/2229.

<sup>&</sup>lt;sup>147</sup> Kaveshnikov N. The issue of energy security in relations between Russia and the European Union. European Security. Vol.19, Issue 4. 22.12.2012. P.597.

#### **2.4 Russia-EU energy cooperation**

As stated by the Director-general of the Directorate-General for Energy of the European Commission, the EU's relations with Russia "present both a challenge and an opportunity", summarizing the ambivalent relationship that these two partners have built since the birth of the Russian Federation as a newly independent state<sup>148</sup>. Prospects for cooperation with the European Union are delineated in the Foreign Policy Concept of the Russian Federation of 2016, which acknowledges the importance of trade, economic, and political relations between the two actors to be cultivated based on the principle of equality and the establishment of "institutional cooperation mechanisms so as to ensure mutual benefit and the best possible configuration of partnership ties, including in the energy segment"<sup>149</sup>. The energy relations between the European Union and Russia have their roots in the Partnership and Cooperation Agreement, signed in 1994 and into force since 1997, which provides the legal framework for "economic, social, financial and cultural cooperation based on the principles of mutual advantage, mutual responsibility and mutual support" between the two actors and, in Title II provides the basis for political dialogue, including a dialogue on energy<sup>150151</sup>. Since the year 2000, the two actors' energy affairs have been dealt with within the framework of the EU-Russia Energy Dialogue, established at the EU-Russia Summit in Paris on October 30<sup>th</sup>, 2000, through an agreement of the then Vice-Prime Minister of the Russian Federation, Viktor Khristenko, and President of the European Commission, Romano Prodi<sup>152</sup>. The Dialogue provides the framework for EU-Russia energy cooperation to be progressed toward a more delineated energy partnership and is structured through several thematic groups which bring together energy experts and institutions such as the Russian Energy Ministry, the European Commission, energy stakeholders, and business and members of the academia in order to discuss areas of cooperation, investment opportunities, and areas of common interest<sup>153</sup>. The main objectives of the Dialogue, as listed by the European Commission, are to:

<sup>&</sup>lt;sup>148</sup> European Union. EU-Russia Energy Dialogue. The First Ten Years: 2000-2010. Brussels. 2011. URL:https://ec.europa.eu/energy/sites/ener/files/documents/2011\_eu-russia\_energy\_relations.pdf.

<sup>&</sup>lt;sup>149</sup> МИД России. Foreign Policy Concept of the Russian Federation approved by President of the Russian Federation Vladimir Putin on November 30,2016. 01.12.2016. URL: <u>https://www.mid.ru/en/foreign\_policy/official\_documents/-/asset\_publisher/CptICkB6BZ29/content/id/2542248</u>.

<sup>&</sup>lt;sup>150</sup> EUR-Lex. EU-Russia partnership and cooperation agreement. 10.10.2016. URL:https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUMpercent3A28010102\_2.

 <sup>&</sup>lt;sup>151</sup> European Union. EU-Russia Energy Dialogue. The First Ten Years: 2000-2010. Brussels. 2011.
 URL:https://ec.europa.eu/energy/sites/ener/files/documents/2011\_eu-russia\_energy\_relations.pdf.
 <sup>152</sup> Ibid.

<sup>&</sup>lt;sup>153</sup> European Commission. EU-Russia Energy Dialogue. URL:https://ec.europa.eu/energy/topics/international-cooperation/key-partner-countries-and-regions/russia/eu-russia-energy-dialogue\_en.

- "improve investment opportunities in the energy sector, including through the opening up of energy markets;
- ensure secure and adequate infrastructure;
- facilitate an increase in the use of environmentally friendly technologies and energy resources;
- promote energy efficiency and energy savings on the way to a low-carbon economy;
- exchange information on legislative initiatives"<sup>154</sup>.

Since 2000, the EU-Russia Energy Dialogue has been substantially expanded and, in the aftermath of the gas disputes between Russia and Ukraine in 2006 and 2009 which threatened the reliable flows of energy supply to the Union, in November 2009, the two powers signed the Memorandum on a Mechanism for Preventing and Overcoming Emergency Situations in the Energy Sector within the Framework of the EU-Russia Energy Dialogue, also referred to as the Early Warning Mechanism. The Mechanism was developed with the purpose of "ensuring unhindered and uninterrupted energy supply, preventing and overcoming emergency situations in the energy sector with the minimal negative consequences (...) taking into account the evaluation of short-, middle- and long-term technical, commercial and political risks related to the supply and demand elaborated within the framework of the EU-Russia Energy Dialogue Thematic Groups on energy strategy, Forecasts and Scenarios and Market Developments", defining the emergency situation as an interruption of supplies from Russia to the Union, encompassing also interruption of supplies to transit countries which in turn would hinder the delivery of supplies, or an unexpected level of demand from the EU that Russia would not be able to meet through market measures<sup>155</sup>. In 2013, within the framework of the Energy Dialogue, the EU and Russia delineated the Roadmap for Russia-EU Energy Cooperation until 2050, a document envisaging the areas of possible long-term cooperation between the two actors in light of a rapidly evolving world, with the emergence of new threats such as climate change, depletion of resources and new energy consumers, particularly India and China, and an ever-increasing interconnection of the energy market. The Roadmap acknowledges the energy interdependence between the EU and Russia, pointing out how cooperation is inevitable. The main objective of the Roadmap is the establishment of a Pan-European Energy Space "with a functioning integrated network infrastructure, with open, transparent, efficient and competitive markets, making the necessary contribution to ensuring energy security and reaching the sustainable development goals of the EU and Russia<sup>156</sup>. The document envisages as necessary a shift in EU-Russia energy relations

<sup>156</sup> Roadmap EU-Russia Energy Cooperation until 2050. 03. 2013.

<sup>&</sup>lt;sup>154</sup> *Ibid*.

<sup>&</sup>lt;sup>155</sup> Memorandum on a Mechanism for Preventing and Overcoming Emergency Situations in the Energy Sector within the Framework of the EU-Russia Energy Dialogue (Early Warning Mechanism). Brussels. 24.02.2011. P.2. URL:<u>https://ec.europa.eu/energy/sites/ener/files/documents/20110224\_memorandum.pdf</u>.

P.5.URL: https://ec.europa.eu/energy/sites/ener/files/documents/2013 03 eu russia roadmap 2050 signed.pdf.

from a purely supply/demand dynamic to technology-based cooperation which will boost economic development and stability and reiterates the necessity to reduce uncertainty in energy relations, underlining Russia's priority of ensuring the security of energy demand and the EU's energy policy priority of "ensur(ing) safe, secure, sustainable and affordable energy contributing to European competitiveness" <sup>157</sup>. At the same time, the Roadmap acknowledges the threat to Russia's energy security posed by the decarbonization policy and lower demand for fossil fuels from the EU, and the threat to the EU's energy security posed by the emergence of new energy markets such as China and India whose hydrocarbons demand will steadily increase, presenting the EU with competition for Russia's energy resources. The Energy Dialogue is not currently operational, having been suspended in 2014, in the aftermath of the Crimean crisis, recognized by the EU as unlawful annexation of Ukrainian territory by the Russian Federation, and the escalation of violence in the Donetsk and Luhansk regions in Eastern Ukraine, pending a resolution of the crisis and the respect for the ceasefire pursuant to the Minsk peace agreements which have been repeatedly violated. Despite the suspension of the Energy Dialogue, energy relations between the EU and Russia continue, particularly in the form of bilateral relations with the EU's Member States, and no significant natural gas disruptions have further deteriorated the precarious equilibria, probably in light of the two actors' awareness that no viable alternative for their energy security is available in the short-term<sup>158</sup>.

# 2.5 Common interests and divergences in the EU-Russia relations

In the present section, I am briefly going to analyze the areas of common interest and divergence in the political relations between Russia and the European Union, as diverging political opinions have contributed to deteriorating the relationship between the two actors over the years, increasing antagonism and mistrust, which has reverberated into EU-Russia energy relations and increased concerns about their energy security. Being both the European Union and the Russian Federation relatively new institutional and political entities, formed as they are today at the beginning of the 1990s, their political relations have been particularly ambivalent during the years, swinging from moments of optimism and cooperation to moments of antagonism, dominated by mistrust and misunderstanding. As former First Secretary of State of the United Kingdom and EU Trade Commissioner, Peter Mandelson, claimed, "the relationship between Russia and the EU is one of the biggest and most complicated challenges in European politics and foreign policy" and spans across a variety of dimensions which inextricably link their foreign policy interests such as "energy, climate

<sup>&</sup>lt;sup>157</sup> *Ibid.* P.11

<sup>&</sup>lt;sup>158</sup> Khrushceva O., Maltby T. The Future of EU-Russia Energy Relations in the Context of Decarbonisation. Geopolitics. Vol.21. No.4. 799–830. Routlesge, Taylor & Francis Group. 2016. P.804.

change, trade, security, crime, migration, the Middle East, Iran, the Balkans<sup>"159</sup>. Relations between the two actors have been uncertain in light of different political and normative orientations, combined with the unavoidable relations regarding trade, finance, and security that characterize the two neighbors. The Atlanticist orientation of the EU, the participation of almost all EU Member States to the North Atlantic Treaty Organization (NATO), and the European enlargements of 2004 and 2007 for which Russia saw the Union expanding in its former territories and sphere of influence, on the one hand, and Russia's increasingly expansionist behavior in its neighborhood, along with the conduct of its domestic policy which is in contrast with the values promoted by the EU, have curbed the progress in the integration processes envisaged by the two partners and hindered the complete fulfillment of cooperation projects. In analyzing the main convergence and divergence points in EU-Russia relations, the Russian International Affairs Council (RIAC) identified major common areas of interest that would stimulate cooperation among the two actors:

- enhance economic cooperation, including the area of trade, finance, and energy, as the two
  actors and have developed crucial trade relations for which the EU accounts for about 40
  percent of Russian imports and receives about half of the overall Russian exports<sup>160</sup>.
- Increase coordination and develop a strategic dialogue regarding international crisis management outside the European continent and cooperate in the fights against international terrorism and other transnational threats;
- Contrasting the gradual estrangement between the two actors, their societies, and cultures and developing a better suitable framework for EU-Russia relations<sup>161</sup>.

Economic cooperation, including energy, is the area of common interest in which cooperation was almost fully maintained even in the aftermath of the Crimean crisis, while cooperation has been less decisive and structured in the other areas of interest and became unfruitful or was halted after 2014. Cooperation in most fields has not been satisfactory because of the points of divergences and friction between their foreign policy. The Common Neighborhood has always represented a delicate topic in EU-Russia relations for different reasons, having origin in a divergence of values and priorities. Indeed, while the EU is a normative power, prioritizing the respect for human rights, minorities, democracy, the rule of law, and economic liberalization, aiming to export these values outside the Union, particularly to its neighboring countries as a strategy for creating an area of peace and stability, Russia has refused the influence of the Union's normative power, also perceiving it as a threat to its influence in the post-Soviet space, and prefers pursuing a relationship with the Union not based on

<sup>&</sup>lt;sup>159</sup> Zagorski A.V. Russia-EU Relations at a Crossroads, Common and Divergent Interests. Russian International Affairs Council. Moscow. 2016.

<sup>&</sup>lt;sup>160</sup> *Ibid.* P.9.

<sup>&</sup>lt;sup>161</sup> *Ibid*.

common values but on a contractual relationship<sup>162</sup>. Furthermore, since its birth as a newly independent country, Russia has sought to establish a relationship with the Union as two equal partners and rejected the participation to the European Neighborhood Policy, governing the relations with the EU's neighboring countries and devoted to the promotion of the EU values in this area, opposing the idea of being treated as a country to be Europeanized, and therefore to accept the acquis of the Union, and aiming to be treated as an equal contractual partner. In light of this contraposition of ideals, the Common Neighborhood has increasingly become an area of competition between the two powers which compete for the influence over the Eastern European countries through rival integration projects. In 2009, the European Union launched the Eastern Partnership, within the framework of the European Neighborhood Policy, with six countries of the Eastern neighborhood, namely Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine, devoted to strengthening cooperation in a variety of areas, including economics, politics, society, and promote the EU values and market reforms in these countries. Russia perceived the launch of the Partnership as an expansionist move of the Union and a threat to its influence in its "Near Abroad" and, since then, has opposed the Partnership and underlined that such a project of deeper integration of the Eastern neighborhood would not have been compatible with strengthening a strategic partnership between the EU and the Federation<sup>163</sup>. In 2015, Russia developed an even more ambitious project and created the Eurasian Economic Union (EAEU), a supranational organization with Armenia, Belarus, Kazakhstan, and Kyrgyzstan, started as a project of economic integration with a single market, based on the free movements of goods and services and the integration of the transport, energy, agricultural and industrial sectors, on the example of the rival European Union relying on the positive spillover of economics to create a stronger political union. Moscow's plans for economic integration were actually projected on a wider scale, aiming first at the creation of a common economic space from Lisbon to Vladivostok, including the EU and the EAEU, with the possibility of enlarging the space even further to create a space going from Lisbon to Shanghai and include China in the integration project<sup>164</sup>. The proposal, however, never found ground for development due to the numerous political disagreements between the EU and Russia which were exacerbated by the Ukrainian crisis. In 2003, Moscow and Brussels had agreed on the objective of establishing of Common Economic Space where the parties took into consideration their ideological difference and the different views of their relationship, allowing Moscow to selectively decide on what part of the EU acquis to incorporate, in order to build a space regulated by "compatible, not necessarily common rules, regulations and

<sup>&</sup>lt;sup>162</sup> *Ibid. P.14* 

<sup>&</sup>lt;sup>163</sup> *Ibid.* P.14.

<sup>&</sup>lt;sup>164</sup> Iiasa. Challenges and Opportunities of Economic Integration within a Wider European and Eurasian Space. 01.12.2019. URL:https://iiasa.ac.at/web/home/research/eurasian/EconomicIntegration.html.

administrative practices"<sup>165</sup>. However, the majority of projects of integration and cooperation put forward by the two actors was hindered by the divergence of interests and Moscow shifted its attention towards its "Near Abroad" and developed the project of Eurasian economic integration.

## 2.6 The issue of Ukraine in EU-Russia political disputes and energy security dilemma

Before the construction of the Nord Stream, Russia did not have a pipeline network ensuring direct access to the EU and relied on the pipelines constructed under the Soviet Union transiting through non-EU countries. In particular, three former Soviet Socialist Republic, Belarus, Moldova, and Ukraine, are transit countries for Russia's natural gas deliveries to the European Member States. Ukraine, in particular, has a vital transit role in the delivery of gas to Europe, as in the 1990s, about 90 percent of Russian gas to Europe transited through Ukraine, an amount which has gradually decreased in the 2000s, namely to 75 percent from 2003 and 50 percent from 2011, coinciding with the launch of Nord Stream I, and expected to fall below 35 percent with the launch of Nord Stream II<sup>166</sup>. Indeed, following an agreement signed between Gazprom and Naftogaz in 2019 regulating the transit flows to Europe up to 2024, the amount of gas transiting through Ukraine has been reduced compared to previous years, as the system has transported 65 bcm of natural gas to Europe in 2020, to be decreased to 40 bcm until 2024, a substantial decline compared to the 93.5 bcm of gas transited in 2017<sup>167168</sup>. Such a drastic decrease is due to Russia's decision to bypass Ukraine through the Nord Stream and TurkStream in the aftermath of the 2006 and 2009 gas disputes which have undermined Gazprom's credibility as a reliable supplier. Through Ukraine, transit the oldest gas pipelines connecting Russia to Europe, the 'Brotherhood' and the 'Soyuz', through which deliveries began respectively in 1967 and 1980, which, along with the Urengoy - Pomary - Uzhgorod and the Progress pipelines, functional in 1988, compose the "Ukrainian corridor, "the largest gas transport corridor with a design capacity of over 100bcm", transporting gas to Slovakia, Hungary, Romania, Bulgaria, Turkey, Greece, North Macedonia, Czech Republic, and Austria, from which gas is redistributed to other European countries<sup>169</sup>. Despite the mutual dependency in the energy field, the relations between the two neighbors have, however, deteriorated increasingly through the years due to Russia's attempts not to lose Ukraine from its sphere of influence, in light of the country's swinging

<sup>&</sup>lt;sup>165</sup> Zagorski A.V. Russia-EU Relations at a Crossroads, Common and Divergent Interests. Russian International Affairs Council. Moscow. 2016. P.13.

<sup>&</sup>lt;sup>166</sup> Statista Research Department. Share of Russian gas transited through Ukraine 1991-2020. Statista 2021. 18.11.2020. URL:https://www.statista.com/statistics/1029089/russia-share-gas-transit-through-ukraine/.

<sup>&</sup>lt;sup>167</sup> Ibid.

<sup>&</sup>lt;sup>168</sup> Naumenko D. Russian Gas Transit Through Ukraine After Nord Stream 2: Scenario Analysis. Ukrainian Center for European Policy. Konrad-Adenauer-Stiftung. Kyiv. 2018.

<sup>&</sup>lt;sup>169</sup> Gazprom. Transportation. URL:http://www.gazpromexport.ru/en/projects/transportation/.

political orientation, divided between integration in the European Union and participation to NATO, acclaimed by the Western Ukrainian-speaking part of the country, and closer ties with Russia, preferred by the Eastern Russian-speaking part. Through the 2000s, political friction has increased between the two neighbors, leading to the critical point of the Crimean crisis and the outburst of civil conflict in the Eastern separatist Donetsk and Luhansk regions between Ukrainian government forces and Russian-backed separatists, events which profoundly worry the international community and drastically damaged the political relations between the two actors, leading also to Ukraine's withdrawal from participation to the CIS after 2014 and official withdrawal of its representatives from the organization's institutional bodies in 2018<sup>170</sup>. Political disputes, combined with interdependence in the energy sector, characterized by Russia's dependency on Ukraine as a transit to Europe and Ukraine's dependency on Russia's gas, which prompted its attempts to leverage on its transit role to agree on profitable gas deals, led to years of political instability and gas disputes which repeatedly threatened the EU's energy security. Disagreements of payments and supplies already dominated the Russo-Ukrainian energy relations in the 1990s, when Ukraine began to accumulate high debts due to its inability to pay for the gas supplies from Russia which amounted to 50 bcm per year, prompting a decrease in the amount of gas supplied to Ukraine from Russia with the purpose of compensating the debts, consequently leading to Ukraine's withholding of gas destined for European consumption, to compensate the shortage of supply<sup>171</sup>. This dynamic continued through the years, leading to two major gas disputes in 2006 and 2009 which resulted in the disruption of supplies to European countries and increased awareness about the threat to the energy security of the EU's Member States and European countries in general.

In light of the continuing disputes regarding pricing and supplies, in 2004, during the presidency of Leonid Kuchma, the Russian and Ukrainian governments concluded an agreement regulating the delivery of Turkmen gas to Ukraine. The agreement also entailed the regulation of deliveries from Turkmenistan and Russia, the price for Russian gas deliveries and the transit fees for the Russian supplies to reach the European countries, and a mechanism for the settlement of the gas debt. More specifically, the agreement, which was supposed to regulate the gas deliveries between 2005 and 2009 regulated: the sales volumes and delivery provisions of Turkmen gas to Ukraine; the sales volumes and prices of Russian gas deliveries for Ukrainian consumption, and a barter deal regulating the transit tariffs and volumes, amounting to a supply of 21 to 25 bcm per year to Ukraine

<sup>&</sup>lt;sup>170</sup> Ponomarenko I. Ukraine withdraws all envoys from CIS bodies. Kyiv Post. 19.05.2018. URL:https://web.archive.org/web/20180520110621/https://www.kyivpost.com/ukraine-politics/ukraine-withdraws-envoys-cis-bodies.html

<sup>&</sup>lt;sup>171</sup> Stern J. The Russian-Ukrainian gas crisis of January 2006. The Oxford Institute for Energy Studies. 16.01.2006. P. 2.

and a transit tariff of \$1.09375/mcm/100km; a loan from Gazprom to Naftogaz Ukrayny to extinguish its debts; and the creation of a consortium of Naftogaz and Gazprom to refurbish the transit pipelines in Ukraine<sup>172</sup>. However, the agreement failed to provide a more transparent and defined energy relationship between the two countries, particularly following the change in the Ukrainian presidency from Kuchma to the more Europeanist Viktor Yushchenko and disagreement on the accords such as the consortium of Gazprom and Naftogaz to refurbish the pipelines, which failed in 2005, as President Yushchenko did not agree on the refurbishing and instead preferred the construction of new pipelines. Furthermore, in May 2005, a problem of gas stored by Gazprom in Ukrainian reservoirs emerged when, following repeated requests by the company for access to the reserve, it was declared that around 7.8 bcm had disappeared, either lost because of technical issues or stolen. Therefore Gazprom suggested subtracting the unavailable amount from the amount of gas destined to Ukraine as a transit payment, meaning that country would not have received gas for its national consumption until the end of the year and prompted Ukraine's decision to withhold gas destined for Europe in case of such an event, leading to Gazprom's suggestion for a delivery of gas to be sold at European export price, as the lost gas was destined to Europe. Following this episode, Russia began to question the reliability of Ukraine as a transit country and the security of its reservoirs in its territory, while the European Union started to fear for its energy security, faced with the threat of a cutoff of gas supplies. By the end of 2005, following the Ukrainian government's contestation of loan payment for the debt settlement, deemed to be excessively high, most of the provisions of the agreement were again an issue of debate. The price dispute which sparked the 2006 gas crisis finds its origin in an increase in oil prices at the end of 2005 which prompted Russia to increase its gas prices. Gazprom demanded an increase in prices to the CIS countries which were paying between \$50 and 80/mcm, about a third and a fourth of the price paid by European countries. Having been interested in a stake in the Ukrainian pipeline system, which would have allowed lower transit costs for Russia, in light of Ukraine's refusal, Gazprom required Ukraine to adapt to European prices of \$160-230/mcm from January 2006 and provide a loan or a three-month extension of the current prince before switching to European price levels, both proposals refused by Ukraine, prompting Gazprom to cut off gas deliveries to Ukraine on January 1st, 2006<sup>173</sup>. The incident initially created confusion about the origin of the problem, as Gazprom had assured it did not cut off the delivery of gas exports, something that would have been counterproductive because of the company's need to maintain its credibility as a reliable supplier and ensure export revenues. Therefore, Gazprom's Deputy head, Alexander Medvedev accused Ukraine of having appropriated itself with 100 mcm of gas destined to Europe,

<sup>&</sup>lt;sup>172</sup> *Ibid.* P.3.

<sup>&</sup>lt;sup>173</sup> *Ibid.* P.7.

something which was publicly denied by Ukraine's Fuel and Energy Minister, Ivan Plachkov, asserting that no unauthorized gas diversion had taken place, but underlining Ukraine's right by contract to use Russian gas flowing through Ukrainian pipelines had the temperatures dropped below -3C°<sup>174</sup>. The cutoff had an immediate impact on Europe, with countries such as France, Italy, Austria, Hungary, Poland, and Slovakia experiencing a fall in supplies between 25 and 40 percent<sup>175</sup>. The crisis, however, was soon resolved following an agreement on January 4th between Gazprom and Naftogaz to regulate their energy relations for five years, establishing a price of \$95/mcm for 34bcm for the first semester of 2006 and 58 bcm for 2007 for Ukrainian consumption without the right to reexport and a transit tariff to of \$1.60/mcm/100km to be paid to Naftogaz for deliveries to the European market, ending the barter agreements on transit and increasing transparency by envisaging tariff payments in cash<sup>176</sup>. While the crisis prompted fear for the EU countries, its practical implications were not disastrous as the dispute was resolved within four days and Gazprom had stepped in to increase deliveries to Europe by 95 mcm per day to compensate for the withdrawn gas. However, the dispute was enough to prompt skepticism in the European countries about the reliability of both Russia and Ukraine, fearing that future economic or political disputes could again result in a disruption of supplies and dire consequences for the European countries. Furthermore, the political tension between the two countries did not pass unnoticed and raised doubts in Western countries about Russia using its gas as a political weapon, increasing fear of Europe's vulnerability to Russian politics. Indeed, with the rise to power of Viktor Yushchenko, political relations had increasingly deteriorated. The President had come to power in the aftermath of the Orange Revolution of 2004 and 2005 where, in the framework of national elections for Ukraine's presidency, protesters contested the run-off vote of the election between Viktor Yushchenko and Viktor Yanukovych, favorable of closer relations with Russia, which confirmed the victory of Yanukovych and sparked protests in the country following allegations of having rigged the elections. Therefore, when a second, more scrutinized runoff was held, Yushchenko registered a victory with 52 percent of votes, winning the country's presidency<sup>177</sup>. Consequently, the western-oriented leader, seeking a closer relationship with the European Union and NATO, had established tenser relations with Russia, among which disagreements over the energy contracts. Ukraine had indeed referred to Russia's cutoff of supply as a move to undermine the country's economy, an act of blackmailing in response to Ukraine's attempts to establish stronger relations with the West and decrease Moscow's influence and an attempt to

 <sup>&</sup>lt;sup>174</sup> BBC News. Russia vows to end gas shortage. 02.01.2006. URL:http://news.bbc.co.uk/2/hi/europe/4575726.stm.
 <sup>175</sup> Ibid.

<sup>&</sup>lt;sup>176</sup> Stern J. The Russian-Ukrainian gas crisis of January 2006. The Oxford Institute for Energy Studies. 16.01.2006.P.9.

<sup>&</sup>lt;sup>177</sup> Chivers C.J. Yushchenko Wins 52percent of Vote; Rival Vows a Challenge. The New York Times.28.12.2004. URL: https://www.nytimes.com/2004/12/28/world/europe/yushchenko-wins-52-of-vote-rival-vows-a-challenge.html.

create instability in view of the next Presidential elections<sup>178</sup>. Also in Western countries, the incident was deemed to be motivated by political reasons, and raised questions about Russia's chairmanship position of that year's G8, as remarked by US Secretary of State Condoleezza Rice stating that the cutoff of supply to Ukraine appeared to be "politically motivated efforts to constrain energy supply to Ukraine", pointing out that such behavior on the part of Russia would not be compatible with its attempt to reintegrate as a responsible actor in the international economy for which it is needed to "play by its rules", and that the country would create problems for the international community by acting " it in the way that this was done, with an obvious political motive"<sup>179</sup>.

Despite the settlement of the dispute following the new agreement between Gazprom and Naftogaz to regulate energy relations up to 2009, disagreements continued regarding prices, transit tariffs, and pipeline ownership. Gazprom had indeed aimed at acquiring shares of Ukraine's transit network, which would have reduced its transit costs. This desire had however encountered opposition from the Ukrainian government, which in 2007 approved a law barring the "privatization, sale or lease of gas pipelines" rejecting Gazprom's proposal to create a joint venture for the management of the pipeline network and resulting in worse price deals, compared to other countries which sold the shares of the pipeline networks such as Belarus and Armenia<sup>180</sup>. Moreover, because of the further increase in prices to \$130/tcm, Naftogaz's debts with Gazprom had raised to over \$1.5 billion and, in light of the company's inability to repay the debt, it led to a 50 percent reduction in supplies to Ukraine in March 2007, which did not cause disturbances for European countries<sup>181</sup>. The tensions in 2007, continuing in 2008 and exacerbated by the global recession have hindered the negotiations for new price agreements, leading to the gas crisis of January 2009, much harsher than the one in 2006 as, while during the latter the dispute resulted in a reduction in the gas flows to Europe for four days, the 2009 crisis resulted in complete cessation of the gas flows to European countries, causing grave economic consequences and the verge of a humanitarian crisis in the Balkan States, some of which relied almost completely on Russian gas for home heating and could not provide for their population in one of the coldest months of the year. In light of the global financial crisis and drop in the price of oil, Gazprom, faced with the prospect of a drastic drop in revenues from oil and gas, reaffirmed its objective of selling gas to the CIS countries at European prices, which in 2008 were around \$5000/mcm. At the same time, Ukraine had been drastically impacted by the economic recession

<sup>&</sup>lt;sup>178</sup> *Ibid*.

<sup>&</sup>lt;sup>179</sup> US Department of State. Remarks at the State Department Correspondents Association's Inaugural Newsmaker Breakfast. Archive. 05.01.2006. URL:https://2001-2009.State.gov/secretary/rm/2006/58725.htm.

<sup>&</sup>lt;sup>180</sup> Reuters Staff. Timeline: Gas crises between Russia and Ukraine. Reuters. 11.01.2009.

URL: https://www.reuters.com/article/us-russia-ukraine-gas-timeline-sb-idUSTRE50A1A720090111.

<sup>&</sup>lt;sup>181</sup> *Ibid*.

which had sunk the price of steel, the country's primary export, following a decrease in industrial production of 16.6 percent compared to the previous year and pushing the county to undertake an IMF loan of \$16.5 billion<sup>182</sup>. Additionally, the change in the Ukrainian governmental leadership in September 2007 from Viktor Yanukovych, the pro-Russian Prime Minister to Julia Timoshenko, one of the key figures of the Orange Revolution, who had adopted a harsher electoral promise to contrast Russia's influence in Ukraine's energy sector, further damaged the precarious equilibrium between the two partners. The agreed prices for gas deliveries to Ukraine at \$179.50/mcm and transit tariffs at \$1.70 mcm/100km were put into question by the new Prime Minister, leading to new rounds of negotiation to stipulate a deal. In October, the two countries' Prime Ministers, Timoshenko and Putin concluded a memorandum of understanding which provided the foundation for a more detailed agreement between the CEO of Gazprom Alexei Miller and Naftogaz's CEO Oleg Dubyna on October 24<sup>th</sup>, envisaging Naftogaz as the sole importer of Russian gas to Ukraine, recognized Russia's need to ensure uninterrupted transit of gas through Ukraine over the long-term, the rising of import prices and transit tariffs to "market, economically based and mutually agreed levels' within three years", and the joint exporting of Gazprom and Naftogaz to Europe<sup>183</sup>. Nevertheless, despite the new agreement, the two parties failed to implement its provisions and avoid a new crisis, mainly due to Naftogaz's failure to repay the accumulated debt which, as communicate by Gazprom in December, amounted to \$2.195 billion, and disagreements concerning the repayments of the debt prevented the sign of a supply contract for 2009<sup>184</sup>. Consequently, Gazprom's CEO Alexei Miller announced that in case such an agreement would not have been reached within the year's end, import prices would have raised to European levels from January 2009, namely \$400/mcm, in addition to Putin's statement that any diversion of transit gas from Ukraine would have led to a cutoff in supplies to the country<sup>185</sup>. On January 1<sup>st</sup>, 2009, failing to agree on a contract and repayments, Gazprom lowered the supplies to Ukraine and accused it of having stolen 65.3 mcm of gas destined to Europe.

The crisis exacerbated in the following days when, on January 7<sup>th</sup>, supplies to European countries was completely halted for thirteen days, for which Russian and Ukraine accused each other, the former accused the latter of having closed its pipelines network, while Ukraine justified the closure of the pipelines by accusing Gazprom of having completely halted supplies. This cut provoked grave economic, political, and humanitarian consequences, especially in the south-eastern European

<sup>&</sup>lt;sup>182</sup> Pirani S. The Russo-Ukrainian Gas Dispute. The Russia-Ukrainian Gas Conflict. Russian Analytical Digest. No.53. 20.01.2009. P.3.

<sup>&</sup>lt;sup>183</sup> Stern J., Pirani S., Yafimava K. The Russo-Ukrainian gas dispute of January 2009: a comprehensive assessment. Oxford Institute for Energy Studies. 02.2009. P.13.

<sup>&</sup>lt;sup>184</sup> *Ibid.* P.15.

<sup>&</sup>lt;sup>185</sup> *Ibid.* P.16.

countries of Moldova, Romania, Serbia, Bosnia Herzegovina, Croatia, and Bulgaria which experienced a cut of 100 percent of their gas supplies with no options to seek diversification, resulting in a serious crisis of the households' heating systems for which the population was left without heating for thirteen days in the middle of January. The escalation of the crisis prompted the intervention of the European Commission, led by the Czech presidency, which convened the representatives of the Russian and Ukrainian governments and representatives of Gazprom and Naftogaz to Brussels suggesting the establishment of a monitoring mechanism, a system of redistribution of supplies and tried to foster new negotiations between the two sides to reach an agreement and resume the gas flows to Europe<sup>186</sup>. Eventually, the arrangement proved to be unnecessary as On January 17th, Moscow hosted a summit with the EU and representatives of Ukraine which led to an agreement between Yulia Timoshenko and Vladimir Putin which resulted in the signing on January 19th of two ten-year contracts between Gazprom and Naftogaz on supply and transit envisaging that the import prices for Ukraine would have amounted to 80 per cent of the European prices in 2009, reaching European prices in 2010 and a sanctioning mechanism for which, in case of future diversion of gas, the diverted gas would have been priced at 150 percent of the contract price, if withheld in the period April-September, and priced at 300 percent if the diversion was to take place in the period October-March<sup>187188</sup>.

This incident strongly undermined the Ukrainian and Russian reliability as transit country and supplier but mostly, as reiterated by the Minister of Foreign Affairs of the Czech Republic, Karel Schwarzenberg, stating that "the main lesson learned from this crisis is that Russia and Ukraine aren't reliable suppliers. Europe must think about alternative sources and pipelines."<sup>189190</sup>. Gazprom's credibility was worse affected given that consumers' contracts had been stipulated with Gazprom which, therefore, was under obligation to provide stable and reliable service and the event contributed to increasing general mistrust in the company, as the second big gas crisis in three years prompted

<sup>&</sup>lt;sup>186</sup> Ibid. P.24.

<sup>&</sup>lt;sup>187</sup> Commission of the European Communities. The January 2009 Gas Supply Disruption to the EU: an Assessment. Commission Staff Working Document Accompanying document to the Proposal for a Regulation of the European Parliament and of the Council concerning measures to safeguard security of gas supply and repealing Directive 2004/67/EV. Brussels. 2009. P.4.

 $URL: https://www.cep.eu/Analysen_KOM/KOM_2009\_363\_Sicherheit\_der\_Erdgasversorgung/SEC\_2009-977.pdf$ 

<sup>&</sup>lt;sup>188</sup> Stern J., Pirani S., Yafimava K. The Russo-Ukrainian gas dispute of January 2009: a comprehensive assessment. Oxford Institute for Energy Studies. 02.2009. P.26.

<sup>&</sup>lt;sup>189</sup> European Parliament. Czech Presidency faces up to Gaza and gas dispute. Press release. 21.01.2009. URL:https://www.europarl.europa.eu/sides/getDoc.do?type=IM-

PRESS&reference=20090119IPR46568&format=XML&language=EN.

<sup>&</sup>lt;sup>190</sup>Stern J., Pirani S., Yafimava K. The Russo-Ukrainian gas dispute of January 2009: a comprehensive assessment. Oxford Institute for Energy Studies. 02.2009. P.57

fear that these disputes could be recurring. The crisis had strong repercussions for the energy security of the European Union which, in the Commission Staff Working Document The January 2009 Gas Supply Disruption to the EU: an Assessment, acknowledged the possibility of future disputes between Russia and Ukraine which could undermine the EU's energy security, vulnerable to commercial and political disputes between the two parties. As underlined by the Commission "the crisis confirmed that the EU needs to diversify its supplies in terms of supply source, supplier, transit route and fuel form (natural gas or LNG). It also highlighted the benefits of diversifying energy sources towards indigenous fuels, providing these are also sustainable and competitive", reiterating that there are strong economic and political reasons to increase diversification to ensure the energy security of the Central and Eastern European Countries, more vulnerable to the consequences of the Russian-Ukrainian gas disputes<sup>191</sup>. The dispute significantly accelerated the European Union's plans for diversification of routes and energy resources, together with Russia's strategies to lower its independence on Ukraine as a transit country through diversification of transit routes by constructing new pipelines bypassing Ukraine, namely the Nord Stream and South Stream. While the South Stream project has been scrapped following regulatory disagreements between Russia and the European Union, exacerbated by the Crimean crisis which severely strained their political relations, the Nord Stream pipelines I and II will majorly reduce Russia's dependence on Ukraine as a transit country to Europe. Additionally, Russia will try to concentrate the gas flows to Europe which do not pass through the Nord Stream in the Yamal pipeline, transiting through Belarus and Poland, and attempt to limit to the minimum the amount of transit gas flowing through Ukraine, causing the latter to suffer a major loss of revenues from transit gas, amounting to around a loss of \$3 billion in annual transit revenues – about 3 percent of Ukraine's GDP<sup>192</sup>.

The 2006 and 2009 gas crises contributed to the EU's urgency to safeguard its energy security by diversifying routes and resources and lower its energy dependence on Russia. As mentioned above, in March 2007, the EU and Ukraine began negotiations for an EU-Ukraine Association Agreement to replace the previous Partnership and Cooperation Agreement. The Association Agreement, eventually signed in 2014, is "the biggest international legal document in the history of Ukraine and the biggest international agreement with a third country ever concluded by the European Union" in

<sup>&</sup>lt;sup>191</sup> Commission of the European Communities. The January 2009 Gas Supply Disruption to the EU: an Assessment. Commission Staff Working Document Accompanying document to the Proposal for a Regulation of the European Parliament and of the Council concerning measures to safeguard security of gas supply and repealing Directive 2004/67/EV. Brussels. 2009. P15.

<sup>&</sup>lt;sup>192</sup> Cohen A. As Russia Closes In On Crimea's energy Resources, What Is Next For Ukraine?. Forbes. 28.02.2019. URL: https://www.forbes.com/sites/arielcohen/2019/02/28/as-russia-closes-in-on-crimeas-energy-resources-what-is-next-for-ukraine/?sh=5463cac029cd.

terms of thematic areas, and defines the framework for closer political relations and economic cooperation with Ukraine, by establishing a Deep and Comprehensive Free Trade Area fostering free movements of goods, capital, services, and labor force, with a view to integrating Ukraine in the European single market<sup>193</sup>. It is worth mentioning that the Association Agreement also regulates energy trade between the two neighbors, regulated in Chapter 11 "Trade-Related Energy", envisaging regulation of prices, customs duties and quantitative restrictions, conditions for transit and transport, interruptions, prohibition of unauthorized withdrawals, cooperation on infrastructure development, sustainability and supply security, and regulates the authorization for third-party exploration of national hydrocarbon reserves<sup>194</sup>. Ukraine is, indeed, rich in unconventional gas resources, ranking third in Europe for proved shale gas reserves, following France and Poland, not considering Russia<sup>195</sup>. The presence of large reserves of shale gas proved to be interesting for the EU that is attempting to reduce dependence on Russian gas but has enacted strict regulations on the exploration and exploitation of shale gas in the EU's territory due to security and environmental concerns, while Ukraine, not being a Member State of the Union, is not subject to such regulations and is therefore open for reserves exploitation from European companies. In light of the continuous gas disputes with Russia, Ukraine has also undertaken a strategy to improve its energy security by increasing energy efficiency, diversify sources and suppliers, invest in renewable energy, and improve the performance of the Ukrainian energy industry with the aim of first lowering its dependence from Russia, to eventually erase it, and become a net-exporter to Europe<sup>196</sup>. Before the Crimean crisis, the Ukrainian government had already achieved some progress in lowering dependence on Russian gas imports, decreasing from 45bcm in 2011 to 28 bcm in 2013, with the aim of becoming self-sufficient by 2035, an objective that was strongly undermined with the incorporation of the Crimean Peninsula by the Russian Federation<sup>197</sup>. Ukraine's aspiration to decrease its energy dependence from Russia and to strengthen political and economic ties with Europe posed a threat to Russia's energy interests, as the country was aiming to become self-sufficient and maybe even a net-exporter to the EU<sup>198</sup>. Indeed,

URL:https://trade.ec.europa.eu/doclib/docs/2016/november/tradoc\_155103.pdf.

<sup>&</sup>lt;sup>193</sup> Government Portal. Association Agreement between the European Union and Ukraine. URL:https://www.kmu.gov.ua/en/yevropejska-integraciya/ugoda-pro-asociacyu.

<sup>&</sup>lt;sup>194</sup> Association Agreement between the European Union and its Member States, of the one part, and Ukraine, of the other part. Official Journal of the European Union. 29.05.2014.

<sup>&</sup>lt;sup>195</sup> Keypour J., Hendla I. The Annexation of Crimea: A Realist Look from the Energy Resources Perspective. Baltic Journal of European Studies 9(3): 148-165. 09.2019. P.155.

<sup>&</sup>lt;sup>196</sup> Government Portal. Energy Security. URL:https://www.kmu.gov.ua/en/reformi/ekonomichne-zrostannya/reforma-energetichnogo-sektoru.

<sup>&</sup>lt;sup>197</sup> Umbach F. The energy dimension of Russia's annexation of Crimea. NATO Review. 27.05.2014. <u>URL:https://www.nato.int/docu/review/articles/2014/05/27/the-energy-dimensions-of-russias-annexation-of-crimea/index.html</u>.

<sup>&</sup>lt;sup>198</sup> Keypour J., Hendla I. The Annexation of Crimea: A Realist Look from the Energy Resources Perspective. Baltic Journal of European Studies 9(3): 148-165. 09.2019. P.158

before the annexation of Crimea, Ukraine had developed plans with ExxonMobil and Royal Dutch Shell to explore its reserves in the Black Sea, which have been halted by the annexation of the peninsula<sup>199</sup>. In this framework, the Crimea crisis can also be analyzed from an energy perspective. Indeed, while energy has not been the primary reason for the crisis, it has been interpreted as having played a role in Russia's decision to annex Crimea, as a way to disrupt Ukraine's energy independence strategy and prevent a shift of power balance and the creation of a possible energy bloc between the EU and Ukraine that would have left Russia aside. Indeed, as expressed by Dr. Frank Umbach in NATO Review, the independence and diversification strategy of Ukraine has been undermined by the loss of the Crimean Peninsula, whose offshore natural gas resources are between four and thirteen trillion cubic meters<sup>200</sup>. According to the IEA data, before losing Crimea, Ukraine had considerable conventional and unconventional oil and gas resources, amounting to about 9 billion tons of oil equivalents, 5.4 trillion cubic meters of estimated reserves of natural gas, of which 1.1 tcm are proven, 400 million tons (mt) of gas condensate, and 850 mt of oil<sup>201</sup>. However, in the aftermath of the annexation of Crimea, these data need to be revised, as the country has lost substantial offshore natural gas reserves<sup>202</sup>. Indeed, as reported by Ukrainian media in 2019, by losing the peninsula the country has allegedly lost about 80 percent of its oil and gas reserves in the Black Sea<sup>203</sup>.

The Crimean crisis can be traced back to the Euromaidan Revolution, begun in November 2013, as a reaction to the announcement made by President Viktor Yanukovych that the Ukrainian government would not have signed the Association Agreement with the European Union, an agreement which for part of the Ukrainian population meant the final detachment from Russia and the prospect for inclusion in the Western system. After months of violent protests concentrated in Kiev, Yanukovych fled the country, and a new revolutionary government signed the Association Agreement with the European Union and proposed a motion to repeal a law approved by the previous parliament allowing the use of Russian and other minority languages as official languages in regions with a minority population above 10 percent. The proposal to repeal the law, despite the veto to the motion posed by interim President Oleksandr Turchynov, caused a state of alarm and protests in the Ukrainian eastern regions and Crimea, where there is a high percentage of Russians and Russian speakers. Pro-Russian protests in the Crimean Peninsula culminated in the installation of a new pro-

<sup>&</sup>lt;sup>199</sup> Ibid. P. 156.

<sup>&</sup>lt;sup>200</sup> Umbach F. The energy dimension of Russia's annexation of Crimea. NATO Review. 27.05.2014.

<sup>&</sup>lt;sup>201</sup> IEA. Report extract. Energy security. Resource endowment. URL:https://www.iea.org/reports/ukraine-energy-profile/energy-security

<sup>&</sup>lt;sup>202</sup> Ibid.

<sup>&</sup>lt;sup>203</sup> Ukrinform. Ukraine loses 80% of oil and gas deposits in Black Sea due to annexation of Crimea. 20.02.2019. URL:https://www.ukrinform.net/rubric-economy/2644538-ukraine-loses-80-of-oil-and-gas-deposits-in-black-sea-due-to-annexation-of-crimea.html.

Russian government which called for a referendum on the independence of the region, asking either for more autonomy of the region or a reunion with the Russian Federation. As the latter option recorded the majority of votes, the Russian Federation, which had already sent special military troops to the Crimean territory with the purpose of protecting the Russian population in the region, annexed the Peninsula to its territory on March 18<sup>th</sup>, 2014, an action which was condemned by the international community and prompted a sanction war between Russia and Western powers such as the European Union, Norway, the United States, Canada, and Australia. The Crimean crisis has been analyzed by realist scholars as an act of power balancing in that, being Russia concerned about Ukraine's increasing closeness to the EU which would have undermined its political and economic influence, shifting the balance of power to the EU, the Federation acted using military, economic, and diplomatic means to "ensure that the opponent does not become overpowering", by incorporating part of the country which was pivotal for its energy strategy as a wedge strategy, the action of depriving an enemy of its strengths so as to weaken its position<sup>204</sup>. Indeed, the Crimean Peninsula presents good potentials for energy exploitation, as around 47 million tons of oil and 165 million cubic meters of gas are distributed across ten oil fields, 27 gas deposits, and seven deposits of gas condensate, while the portion of the Black Sea and the Sea of Azov contended between Russia and Ukraine would host five gas deposits and three gas condensate deposits on the continental shelf of the Black Sea and six gas deposits offshore the Azov Sea<sup>205</sup>. Following the annexation, Ukraine's Energy Ministry declared that the country had lost around 80 percent of its oil and gas deposits in the Black Sea, and had to suspend exploration projects led by ExxonMobil and Royal Dutch Shell of the Skifska block in the Black Sea and later also the Shell-led project of exploration of the Yuzivska gas field, located in the regions of Kharkiv and Donetsk, which was hindered by the conflict in the Donbas<sup>206</sup>. According to Javad Keypour and Ivar Hendla, by incorporating Crimea, the Russian Federation undertook a subtractive strategy with the purpose of weakening the adversary more than gaining resources<sup>207</sup>. Indeed, being one of the richest countries in oil and gas reserves, Russia does not need the Crimean reserves for its energy security. However, the Crimean resources were almost indispensable for Ukraine to implement its independence strategy and become a net-exporter. Moreover, the incorporation of Crimea entailed significant costs for Russia which had to invest significantly in the Crimean energy infrastructure to make it compatible with the Russian one, to connect it to Russia

<sup>&</sup>lt;sup>204</sup> Keypour J., Hendla I. The Annexation of Crimea: A Realist Look from the Energy Resources Perspective. Baltic Journal of European Studies 9(3): 148-165. 09.2019. P 157-159.

 <sup>&</sup>lt;sup>205</sup> TASS. Minister charts Crimea potential for hydrocarbon riches. 15.04.2014. URL:https://tass.com/economy/727905.
 <sup>206</sup> U.S. Energy Information Administration. Ukraine. 08.2021.

URL: https://www.eia.gov/international/analysis/country/UKR.

<sup>&</sup>lt;sup>207</sup> Keypour J., Hendla I. The Annexation of Crimea: A Realist Look from the Energy Resources Perspective. Baltic Journal of European Studies 9(3): 148-165. 09.2019. P.159.

through new gas pipelines, and to increase its energy security, for which the Kremlin has announced a planned expenditure of 50 billion rubles by 2020<sup>208</sup>. Additionally, the Federation has not even been able to fully exploit the oil and gas field in the Peninsula and the surrounding waters due to the international sanctions imposed on Chornomornaftohaz, the former Ukrainian energy company in Crimea nationalized by Russia, and the arbitration initiated by Ukrainian 2018 on its international maritime rights, accusing Russia of a territorial invasion under Annex VII of the United Nation Convention of Law of the Sea<sup>209</sup>. Therefore, the authors have argued that the high expenses that the annexation has entailed, along with the impossibility of exploiting the Peninsula's natural resources, are indicative of the fact that the energy dimension of the Crimean crisis does not lie behind the Russian prospects of economic gains in the regions but the need for preventing Ukraine's energy strategy and turn to the EU in order to ensure Ukraine's continued dependency on Russian imports and hinder the EU's attempt to diversify importers and sources to shift the power balance of the interdependence with Russia, accentuating asymmetry in its favor. In the aftermath of the Crimean crisis, another gas dispute on the gas prices and Ukrainian debts with Gazprom reminded Europe of the previous disruptive gas disputes of 2006 and 2009, when in June 2015, Ukraine was again cut off from Russian gas supplies due to the impossibility to reach an agreement on prices and debts, exacerbated by political antagonism sparked by the Crimean crisis and the increasing instability in the Donbas, with Russia accusing Kyiv of blackmail to get lower gas prices, and Ukraine accusing Russia of the intention to destroy the country<sup>210</sup>. The crisis was not as disruptive for the European countries as the previous ones, as the cut-off only affected Ukraine, and sparked an act of solidarity on the European side, which supplied Ukraine with gas through reverse flow deals, prompting Gazprom's anger<sup>211</sup>. However, such events further strained political and energy relations between Russia and the European Union which enacted several restrictive measures against Russia, namely diplomatic measures, individual restrictive measures, restriction on economic relations with Crimea and Sevastopol, economic sanctions, and restrictions on economic cooperation<sup>212</sup>. With the burst of violence in the Donbas, the sanctions have been linked to the implementation of the Minsk Agreements from Russia and renewed based on the assessment of their implementation, therefore,

<sup>&</sup>lt;sup>208</sup> *Ibid*.

<sup>&</sup>lt;sup>209</sup> Ibid.

<sup>&</sup>lt;sup>210</sup> Walker S. Russia cuts off gas supply to Ukraine after talks collapse. The Guardian. 16.06.2014. URL: https://www.theguardian.com/world/2014/jun/16/russia-cuts-off-gas-supply-ukraine.

<sup>&</sup>lt;sup>211</sup> Keypour J., Hendla I. The Annexation of Crimea: A Realist Look from the Energy Resources Perspective. Baltic Journal of European Studies 9(3): 148-165. 09.2019. P.261.

<sup>&</sup>lt;sup>212</sup> European Union. EU restrictive measures in response to the crisis in Ukraine. 23.07.2021. URL: https://www.consilium.europa.eu/en/policies/sanctions/ukraine-crisis/.

the Council of the European Union has prolonged their enforcement until June 2022<sup>213</sup>. Interestingly, the sanctions enacted by the European Union against Russia in the energy sector do not target the gas industry, given the high dependency of the Union on Russian gas, demonstrating that this dependency tends to shape the political action of the Union, which would find itself adversely affected by its own sanctions. The Crimean crisis and the escalation of the situation in the Donbas, which has entered its seventh year of conflict, for which the EU has condemned Russia for its support to the separatist militias, have particularly strained the political relations between the two actors and reduced the prospects for cooperation, prompting incumbent High Representative of the EU, Joseph Borrell, to declare that Russia and the EU find themselves at a crossroads and must decide in what direction to steer their relations<sup>214</sup>. Meanwhile, as mistrust increases steeply and the two actors continue to perceive each other as unreliable, energy security remains high on the agenda as the EU continues its effort of diversification of resources and suppliers, while Russia attempts, on the one hand, to improve its energy relations with Europe by promoting Gazprom's image as a reliable supplier in order to maintain the dependency on its resources and not lose the biggest share of revenues from energy exports, while simultaneously looking for new markets to export in order to decrease its dependency on the European market.

<sup>&</sup>lt;sup>213</sup> European Union. Russia's illegal annexation of Crimea and Sevastopol: Council renews sanctions for further year. 21.06.2021. URL: https://www.consilium.europa.eu/en/press/press-releases/2021/06/21/russia-s-illegal-annexation-ofcrimea-and-sevastopol-council-renews-sanctions-for-a-further-year/.

<sup>&</sup>lt;sup>214</sup> Radio Free Europe/Radio Liberty. EU's Borrell Says relations With Russia 'At A Crossroads'. 07.02.2021. URL:https://www.rferl.org/a/eu-borrell-says-relations-with-russia-at-crossroads/31090727.html.

# The EU's and Russia's strategies to safeguard energy security: progress and contradictions

The political friction accumulated during the 2000s, because of the EU's and NATO's enlargements, the Georgian war of 2008, the Russo-Ukrainian gas disputes of 2006 and 2009, and, most importantly the crisis in Crimea and the conflict in the Donbas has increased mistrust in relations between Russia and the European Union. This mistrust has gradually intensified to also dominate the energy sphere, prompting the two actors' urgency to safeguard their energy security, due to fear that their energy relations could be adversely affected by the deterioration of the political relations and that energy could be used as a weapon to assert one's influence over the other. As mentioned above, EU-Russia relations present the features of a security dilemma where, the two actors fear for their own security, in this case, their energy security, and enact strategies to safeguard it. However, due to their interdependence, any action to bolster the energy security of one side adversely affects the energy security of the other which, in turn, activates to protect its energy interests, prompting even more fear in the counterpart. The energy interdependence between Russia and the EU, indeed, prevents each actor to act independently without jeopardizing the energy security of the other, causing mistrust and tensions to increase. In recent years, the EU and Russia have been concerned about bolstering their energy security in light of the deteriorating political relations. On the one hand, the European Union has attempted to reduce its energy dependence on Russia through diversification of suppliers and energy resources and the adoption of an ambitious project of decarbonization. On the other hand, Russia has adopted a bidirectional strategy, trying to ensure the continuation of the EU's energy dependence on its imports and present itself as a reliable and stable supplier of hydrocarbon, and, at the same time, safeguard the economic revenues coming from fossil fuel exports by opening up to new markets, particularly the growing Asian ones, to find an alternative in case of a successful independence strategy on the part of the European Union.

# **3.1** The EU's energy independence strategy

Since the 2006 and 2009 gas disputes between Russia and Ukraine which resulted in the disruption of natural gas supplies to the Union and other European countries, the EU has matured the need to improve energy security by reducing its dependence on Russian hydrocarbons and on transit countries like Ukraine, which could hinder the stable and reliable flow of gas to European households. After the gas disruption of 2009, the EU has approved the 2010 regulation on the security of gas supply, mandating the presence of reverse flaw mechanisms in all pipelines, the diversification of Member States' supply to three different sources, the harmonization of consumer standards of supply,

and increased solidarity in case of disruptions<sup>215</sup>. The Crimean crisis and the continued conflict in the Donbas have increased the political tensions between Russia and the EU and contributed to the EU's vision of Russia as a "foe" playing power politics in the international arena, capable of employing its energy resources as a weapon to exert political leverage on countries relying excessively on energy imports from Russia. While some countries, like Italy and other Western European countries, have a more diversified energy market, being more connected to the MENA countries, the Eastern and Northern European countries, particularly the countries bordering Russia, like the Baltic States and Finland, present a heavy dependence on Russian hydrocarbons, perceived as a threat to their national security, fearing for aggressive actions from the Federation which could leverage on the dependence and use its hydrocarbons as a "political weapon" to exert its influence on their territory. The Ukrainian crisis has indeed sparked fears, particularly among these countries which have undergone a long history of political and military tensions with Russia, that the latter could leverage on their energy dependence to try and bring them back under its sphere of influence. Consequently, they have increasingly pressured the EU into adopting new strategies that would decrease the Union's dependence on Russian imports, particularly for the Central and Eastern European countries whose economies are heavily dependent on Russian hydrocarbon imports and have not yet developed alternative supply routes, making Russia the only supplier, not afraid of competition, resulting in unfavorable gas prices<sup>216</sup>. In order to improve its energy security, the European Union has indeed prioritized lowering this dependence on Russia and through the years it has developed different strategies to bolster its energy security through legal means, pipeline projects, and ambitious decarbonization plans. At the same time, however, the Union does not have exclusive competence in the energy field, as energy is a shared competence between the Union and its Member States, therefore, it cannot act as a unitary actor and steer its Member State's national energy policies. Thus, divisions within the EU Member States and their reluctance to give exclusive competence to the Union in energy and foreign policy matter risk undermining its energy security goals.

#### 3.1.1 The liberalization of the energy market

The first strategy implemented by the EU to improve its energy security is the liberalization of its energy market and its promotion abroad by advancing this model in its Neighborhood and requiring foreign companies to adapt to the EU's standards. The liberalization of the internal energy market has proceeded through the adoption of three liberalization packages regarding the electricity and gas

<sup>&</sup>lt;sup>215</sup> Vinois J., Bros T. Russian Gas Pipelines and the European Union: Moving From a Love-Hate Relationship "With Adults in the Room"?. Jacques Delors Energy Centre. Europe of Energy. Policy Paper No. 247. 12.2019. P.5.

<sup>&</sup>lt;sup>216</sup> Morningstar R. L., Simonyi A., Khakova O., Markina I. European Energy Diversification: How Alternative Sources, Routes, and Clean Technologies Can Bolster Energy Security and Decarbonization. Atlantic Council. January 2020.

markets, adopted in 1998, 2003, and 2009, aiming to eliminate the monopolistic structure of the national energy markets where production, distribution, and trading fall under the scope of the national energy companies which prevent competition in the market<sup>217</sup>. The purpose of the liberalization packages is that of creating a more cohesive energy market fostering the participation of new energy enterprises in the market, increasing competition, and lowering energy prices. Most EU Member States have liberalized their electricity and gas market in 2008 but different levels of application of the regulations have led to different levels of competition, creating heterogeneous energy markets, resulting in a puzzle of liberalized national markets but not a unified one. The liberalization has, therefore, not been fully accomplished, as the objective of a unified, coherent, and competitive European energy market is yet to be achieved. The liberalization legislation has adversely affected the participation of Russian companies like Gazprom, to the point that Russia has openly criticized some of the EU's liberalization regulations, accusing the EU of having developed them specifically to undermine Russia's energy interests in the European energy market. One of the most contested measures adopted by the EU for the energy market liberalization is the Third Energy Package, a legislative package of regulations and directives adopted in July 2009, regulating five areas of the energy market: unbundling, independent regulators, the Agency for the Cooperation of Energy Regulators, cross-border cooperation, and open and fair retail markets"<sup>218</sup>. The areas of greater controversy of the Third Energy Package are the clauses regulating the unbundling and the third-party access to transmission networks. The unbundling clause provides for the "separation of energy supply and generation from the operation of transmission networks", hindering the work of national energy companies which are vertically integrated by unbundling them in upstream, namely the production of energy resources, midstream, the transportation of energy resources, and downstream, their distribution<sup>219220</sup>. As the Package prevents producer companies to operate transit networks as well, companies need to adjust to these requirements, following three possible methods, which are left to the discretion of the EU's Member States. The three practices are:

 Ownership unbundling, according to which the producing company sells the gas and electricity network and cannot retain a majority share or hinder the work of the transmission operator;

<sup>&</sup>lt;sup>217</sup> European Commission. Liberalisation of the energy market (electricity and gas).

URL:https://ec.europa.eu/energy/content/liberalisation-energy-market-electricity-and-gas\_en.

<sup>&</sup>lt;sup>218</sup> European Commission. Third energy package. 05.03.2021. URL: https://ec.europa.eu/energy/topics/markets-and-consumers/market-legislation/third-energy-package\_en.

<sup>&</sup>lt;sup>219</sup> Ibid.

<sup>&</sup>lt;sup>220</sup> T. Romanova. Is Russian Energy Policy towards the EU Only about Geopolitics? The Case of the Third Liberalization Package. Geopolitics, 21:4, 857-879. 21.03.2016.

- Independent system operator, which allows for the producing company to retain ownership of the gas and electricity transmission systems through the management of the system is assigned to an independent operator;
- Independent transmission system operator, by which the producing company can retain ownership and can manage the transmission networks but though a subsidiary company that takes decisions regarding the transmission network independently<sup>221</sup>.

The second principle expressed in the Third Energy Package is the third-party access principle, according to which "the operators of transmission networks must allow any electricity or gas supplier non-discriminatory access to the transmission network to supply customers" in order to create "effective competition"<sup>222</sup>. These two clauses have adversely affected the Russian energy interest by hindering Gazprom's participation in the Union's market and in pipeline projects such as the South Stream. One of the most prominent examples of the adverse effects of the unbundling clause, which has later been referred to as the "Gazprom clause" to underline how the latter seems to be driven by the need to undermine Gazprom's participation in Member States' energy market, is the instance of Lithuania which has chosen the ownership unbundling, fragmenting the national gas utility company, Lietuvos Dujos, of which Gazprom retained 37 percent of shares, separating the sales from the transmission management and forcing Gazprom to sell its share of the company<sup>223</sup>. This decision prompted a substantial increase in gas prices from Gazprom, causing Lithuania to pay a much higher gas price than Latvia and Estonia and pushed its government to file an antitrust complaint against Gazprom, for which, in a preliminary ruling, the Commission established that Gazprom had breached EU antitrust rules by partitioning gas and charging higher prices to several EU Member States and imposed a binding obligation on the company to ensure the "free flow of gas at competitive prices in Central and Eastern European gas markets"<sup>224225</sup>. In addition to the Third Energy Package, the EU has attempted to pressure Russia into ratifying the European Energy Charter which commits parties to open their energy markets to foreign competition and to uphold the principle of freedom of transit by which national companies should guarantee access to their transmission networks to all producer

<sup>&</sup>lt;sup>221</sup> European Commission. Third energy package. 05.03.2021. URL: https://ec.europa.eu/energy/topics/markets-and-consumers/market-legislation/third-energy-package\_en.

<sup>&</sup>lt;sup>222</sup> European Commission. Questions and Answers on the third legislative package for an internal EU gas and electricity market. 02.03.2011. URL:<u>https://ec.europa.eu/commission/presscorner/detail/en/MEMO\_11\_125.</u>

<sup>&</sup>lt;sup>223</sup> Krickovic A. When interdependence Produces Conflict: EU-Russia Energy Relations as a Security Dilemma. Contemporary Security Policy, 36:1, 3-26. 05.03.2015. P.12

<sup>&</sup>lt;sup>224</sup> *Ibid*.

<sup>&</sup>lt;sup>225</sup> European Commission. Antitrust: Commission imposes binding obligations on Gazprom to enable free flow of gas at competitive prices in Central and Eastern European gas markets. 24.05.2018.

URL: https://ec.europa.eu/commission/presscorner/detail/en/IP\_18\_3921.

companies<sup>226</sup>. This principle would allow European producers to access Russian pipelines operated by Transneft in other supply countries in the post-Soviet space, such as Central Asian countries which utilize Russian pipelines, and therefore gain direct access for European companies to hydrocarbon supplies from Central Asia, improving the EU's diversification strategy<sup>227</sup>.

Russia has refused to ratify the Charter and has openly contested the adoption of the Third Energy Package, referring to the practice of ownership unbundling as a "confiscation of Russian property", claiming that Russia should be granted a special treatment concerning transmission network operations and pushing for the development of a distinct international agreement with the EU which would exempt it from the application of the Package's clauses, emphasizing how the legislation undermined Russian energy security<sup>228</sup>. Following the European Union's refusal to stipulate such an agreement, in 2014 the Federation filed a case against the EU, Lithuania, Hungary, and Croatia contesting the Third Energy Package in the WTO as being in violation of the WTO provisions of most favored nations status, which condemns countries applying worse treatments than those provided for other third-country companies, claiming that the legislative package was discriminatory against Russian companies and undermined their ownership rights<sup>229</sup>. However, in 2018, the panels of adjudicators of the WTO ruled against Russia's claims regarding the Package's discriminatory provisions<sup>230</sup>.

#### 3.1.2 The EU's diversification and decarbonization strategies

The tumultuous events between Russia and Ukraine and the increasing global environmental concerns have highlighted the need for the European Union to look for alternative ways to ensure safe energy supplies for European consumption and decrease the consumption of hydrocarbons. Therefore, the Union has embarked on a process of diversification of energy suppliers, by developing pipeline projects that would draw oil and gas directly from other suppliers and transport it to Europe without Russia's involvement. The largest pipeline project to access non-Russian gas and bypass Russian-owned energy infrastructure is the Project of the Southern Energy Corridor to draw oil and gas from Azerbaijan and deliver it to Europe through Turkey. Already in 2006, one of the most successful projects was completed, the Baku-Tbilisi-Ceyhan pipeline to draw Azeri oil from the

 <sup>&</sup>lt;sup>226</sup> Krickovic A. When interdependence Produces Conflict: EU-Russia Energy Relations as a Security Dilemma. Contemporary Security Policy, 36:1, 3-26. 05.03.2015. P.12.
 <sup>227</sup> *Ibid.*

<sup>&</sup>lt;sup>228</sup> T. Romanova. Is Russian Energy Policy towards the EU Only about Geopolitics? The Case of the Third Liberalization Package. Geopolitics, 21:4, 857-879. 21.03.2016. P.865.

<sup>&</sup>lt;sup>229</sup> *Ibid.* P. 868

<sup>&</sup>lt;sup>230</sup> Miles T. Russia loses bulk of WTO challenges to EU gas pipeline rules. Reuters. 10.08.2018. URL: https://www.reuters.com/article/us-russia-eu-gazprom-wto-idUSKBN1KV1OX.

Azeri-Chirag-Deepwater Gunashli field, the largest oil field in Azerbaijan's portion of the Caspian Sea, flowing into the pipeline until the port of Ceyhan, in Turkey, where the oil is shipped to Europe. The pipeline, which is operated by British Petroleum, runs for a total of 1768 km through Azerbaijan, Georgia, and Turkey, it has a capacity of 1.2 million barrels per day and, in 2013, it transported 249.62 barrels of oil<sup>231232233</sup>.

The attempts to diversify gas suppliers through the construction of pipelines that would draw gas from the Caucasus and Central Asia have proved to be more complicated than predicted. In the Second Strategic Energy Review of 2008, the European Commission has put forward the proposal for the construction of a southern gas corridor to supply Europe with Caspian and Middle Eastern Gas<sup>234</sup>. The project, completed in 2020, brings natural gas from the Caspian Sea to Europe and it is structured through three contiguous pipelines. The first pipeline, the South Caucasus Pipeline (SCP), also known as the Baku-Tbilisi-Erzurum Pipeline, running parallel to the BTC oil pipeline, long 692 km and exporting up to 25 bcm of gas per year, transports gas from the Shah Deniz II gas field in Azerbaijan and runs through Georgia until the Turkish border<sup>235</sup>. In Turkey, the South Caucasus Pipeline connects to the Trans Anatolian Pipeline (TANAP), long 1850 km with a capacity of 16 bcm per year, of which, six are destined for Turkish domestic consumption and ten continue into the Trans-Adriatic Pipeline, long 878 km and with an initial capacity of 10 bcm per year, which brings gas from Turkey to Italy, transiting through Greece <sup>236</sup>. Collectively, the South Caucasus Pipeline, the Trans-Anatolian Pipeline, and the Trans-Adriatic Pipeline form the Southern Gas corridor which runs through 3500 km and can bring between 60 and 120 bcm per year to the EU<sup>237</sup>. The original project for a Southern Gas Corridor was more ambitious, as the EU had proposed the development of a natural gas pipeline, the Nabucco West pipeline, to connect to the Turkish TANAP to bring gas from the Caspian Sea to the Central and Eastern EU Member States. The Nabucco pipeline would have been significantly costlier than the Trans-Adriatic Pipeline, but it would have ensured a greater level

<sup>&</sup>lt;sup>231</sup> 1996-2019 BP. Baku-Tbilisi-Ceyhan pipeline. URL: https://www.bp.com/en\_az/azerbaijan/home/who-we-are/operationsprojects/pipelines/btc.html.

<sup>&</sup>lt;sup>232</sup> 1996-2019 BP. Azeri-Chirag-Deepwater Gunashli. URL: https://www.bp.com/en\_az/azerbaijan/home/who-we-are/operationsprojects/acg2.html.

<sup>&</sup>lt;sup>233</sup> Krickovic A. When interdependence Produces Conflict: EU-Russia Energy Relations as a Security Dilemma. Contemporary Security Policy, 36:1, 3-26. 05.03.2015. P 13

<sup>&</sup>lt;sup>234</sup> Morrison L. SOUTHERN GAS CORRIDOR: THE GEOPOLITICAL AND GEO-ECONOMIC IMPLICATIONS OF AN ENERGY MEGA-PROJECT. ICEED. The Journal of Energy and Development. Vol. 43, No. ½. Autumn 2017 and Spring 2018. Pp. 251-29.

<sup>&</sup>lt;sup>235</sup> BP 1996-2021. South Caucasus Pipeline Project. URL: https://www.bp.com/en\_ge/georgia/home/who-we-are/scp.html.

<sup>&</sup>lt;sup>236</sup> AIEE. Il gasdotto TANAP è pronto per esportare in Europa. URL: https://www.aiee.it/il-gasdotto-tanap-e-pronto-per-esportare-in-europa/.

<sup>&</sup>lt;sup>237</sup> Chaffin J. EU plans to loosed Russia's grip on energy. Financial Times. 13.11.2008.

URL: https://www.ft.com/content/c0551926-b197-11dd-b97a-0000779fd18c.

of energy security for the European Union. Indeed, through the TAP, natural gas is directed to Italy from which it is then redistributed to the other EU Member States, and it also supplies the Balkan States of Bulgaria, Greece, Albania, Croatia, Montenegro, and Bosnia and Herzegovina<sup>238</sup>. However, Italy has a much more diversified natural gas market, and the Balkan States have smaller and underdeveloped energy markets compared to the Central and Eastern European States which have larger energy markets and have met greater obstacles in their diversification efforts<sup>239</sup>. The Nabucco project, besides being less economically advantageous than the TAP, has been hindered by the construction of Russia's BlueStream, as will be explained in the following sections. Together with the Nabucco, the EU has aimed to construct the Trans-Caspian Pipeline to enhance the capacity of the Southern Gas Corridor by constructing an underwater pipeline to draw gas from Turkmenistan. This project, as well, was hindered by Russia's contrasting energy plan and its dominance in the post-Soviet space, leading to the suspension of the Trans-Caspian Pipeline, which would have supplied the Nabucco, and the latter's replacement with the Trans-Adriatic Pipeline. The European Union has also undertaken a more recent gas pipeline project to diversify from Russia by financing the Eastern Mediterranean (EastMed) and Poseidon pipeline project of the Italian-Greek joint venture IGI Poseidon and Israel Natural Gas Lines, approved in 2015 by the governments of Italy, Cyprus, and Greece and launched in 2017, with the signing of a Declaration of the Energy Ministers of these countries and Israel<sup>240241</sup>. With a designed length of 1.900 km and an annual capacity of 10 bcm to be further increased to 20 bcm, the EastMed will draw on Cypriot and Israeli natural gas reserves of the Levantine Basin in the Eastern Mediterranean and transport it to Greece and, through the Poseidon pipeline, to Italy to continue for European distribution<sup>242</sup>.

<sup>&</sup>lt;sup>238</sup> Trans Adriatic Pipeline. The Southern Gas Corridor. URL: https://www.tap-ag.com/about-tap/the-big-picture/the-southern-gas-corridor.

<sup>&</sup>lt;sup>239</sup> Krickovic A. When interdependence Produces Conflict: EU-Russia Energy Relations as a Security Dilemma. Contemporary Security Policy, 36:1, 3-26. 05.03.2015. P.14

<sup>&</sup>lt;sup>240</sup> Reuters Staff. Greek. Italian venture signs agreement with Israel on Eastmed gas pipeline scheme. Reuters. 09.03.2021. URL: https://www.reuters.com/article/greece-israel-natgas-idUSL8N2L73PW.

<sup>&</sup>lt;sup>241</sup> NS Energy. Eastern Mediterranean Pipeline Project. URL: https://www.nsenergybusiness.com/projects/eastern-mediterranean-pipeline-project/.

<sup>&</sup>lt;sup>242</sup> Ibid

*Figure 8: The EastMed and Poseidon pipelines*<sup>243</sup>.



Figure 9: The Baku-Tbilisi-Ceyhan and Trans-Caspian Pipelines (planned)<sup>244</sup>.



<sup>&</sup>lt;sup>243</sup> 2017 Edison Spa. Infrastrutture gas. URL: https://www.edison.it/it/infrastrutture-gas-0.

<sup>&</sup>lt;sup>244</sup> Thomas Blomberg/CC. Eurasianet. URL: https://eurasianet.org/azerbaijan-armenia-conflict-poses-threat-to-regionalenergy-corridor

Figure 10: The Southern Gas Corridor (SCP, TANAP, TAP)<sup>245</sup>.



Figure 11: The Trans-Adriatic Pipeline vs. the Nabucco West (scrapped)<sup>246</sup>.



In addition to the diversification of suppliers, the European Union has also embarked on the quest for diversification of energy sources. For the accomplishment of this strategy, investment in the development of new technology for the extraction of unconventional resources, and the trade of shale

<sup>&</sup>lt;sup>245</sup> Trans Adriatic Pipeline. The Southern Gas Corridor. URL: https://www.tap-ag.com/about-tap/the-big-picture/the-southern-gas-corridor.

<sup>&</sup>lt;sup>246</sup> Gurbanov I. Between TAP and Nabucco: Who is the "WINNER" of pipeline selection? – Azerbaijan or Russia?. Energy Corridors Review. 31.08.2013. URL: https://energycorridors.wordpress.com/2013/08/31/between-tap-and-nabucco-who-is-the-winner-of-pipeline-selection-azerbaijan-or-russia/.
gas and liquefied natural gas (LNG) play a crucial role. Shale gas could become a promising energy resource to decrease the dependence of the Union on Russian gas imports. Nevertheless, domestic production of shale gas is still a matter of uncertainty in Europe. Indeed, Europe possesses large shale gas reserves which could allow the Union to halve its imports of Russian natural gas by 2030<sup>247</sup>. However, being an unconventional energy resource, shale gas requires specific technologies and extraction practices such as horizontal drilling and fracking. On the contrary to the United States, whose exploitation of shale gas reserves have significantly changed its position in the gas market, surpassing Russia as the world's largest gas producer, the exploitation of European shale gas reserves is more complicated, being the reserves located in more densely populated areas, prompting safety and environmental concerns which have driven some EU Member States, such as France, Bulgaria, and the Netherlands, to prohibit or place heavy restrictions on shale gas extraction<sup>248</sup>.

The European Union has also expanded its reliance on LNG for its resource diversification strategy, having consistently increased its LNG imports from the United States over recent years. Indeed, as reported by the European Commission, imports have steeply increased since 2016, particularly for France, Italy, Lithuania, Malta, the Netherlands, Poland, Portugal, Spain, Greece, and Belgium, reaching, at the beginning of 2020, 24 bcm of LNG imported from the United States since April 2016<sup>249</sup>. The EU has consequently expanded its LGN import facilities, having currently 24 LNG terminals distributed across the EU's Member States<sup>250</sup>. Some of these terminals are of pivotal importance for the diversification strategies of those EU Member States heavily reliant on Russia's natural gas imports, as in the case of the Krk Island LNG terminal in Croatia which allows for LNG deliveries to countries such as Hungary, a landlocked country importing from 75 to 100 percent of its natural gas from Russia, and the LNG terminal of Klaipeda, in Lithuania, operating since 2014, providing LNG supplies to the Baltic States which import from 75 to 100 percent of their natural gas from Russia because of a lack of alternative routes and connection to the other EU Member States energy infrastructure<sup>251252</sup>. The LNG revolution has also played in favor of the EU Member States in the dispute with Gazprom concerning price and supply contracts. Indeed, being on the

<sup>&</sup>lt;sup>247</sup> Krickovic A. When interdependence Produces Conflict: EU-Russia Energy Relations as a Security Dilemma. Contemporary Security Policy, 36:1, 3-26. 05.03.2015. P.14.

<sup>&</sup>lt;sup>248</sup> Ibid.

<sup>&</sup>lt;sup>249</sup> European Commission. EU-U.S. LNG Trade. U.S. liquified natural gas (LNG) has the potential to help match EU gas needs. P.1. URL: https://ec.europa.eu/energy/sites/ener/files/eu-us\_lng\_trade\_folder.pdf.

<sup>&</sup>lt;sup>250</sup> King & Spalding. LNG in Europe 2018. An Overview of LNG Import Terminals in Europe. 2018. P.2. URL:<u>https://www.kslaw.com/attachments/000/006/010/original/LNG in Europe 2018 -</u> \_An\_Overview\_of\_LNG\_Import\_Terminals\_in\_Europe.pdf?1530031152.

 <sup>&</sup>lt;sup>251</sup> Morningstar R. L., Simonyi A., Khakova O., Markina I. European Energy Diversification: How Alternative Sources, Routes, and Clean Technologies Can Bolster Energy Security and Decarbonization. Atlantic Council. January 2020. P. 6.
 <sup>252</sup> Likhachev V., Westphal K. Russia–EU Energy Relations. Russian International Affairs Council. Report No. 35/2017 Moscow. 2017. P.9.

receiving end, the European countries prefer to stipulate short-term contracts for the supply and pricing of Russian natural gas, concerned that long-term contracts would entrench their dependence on Russia, whose gas price is oil-indexed, threatening their energy security, and therefore advocate for a turn towards spot pricing, for which the price of imported gas is determined by gas demand and supply in the market and not agreed beforehand for future deliveries. The increasing liberalization of the European energy market has prompted competition and made the energy market more liquid, with prices being increasingly set at gas trading hubs, and the flexibility of LNG, which is shipped, compared to natural gas, which is more rigid, being delivered through pipelines and underpinned by long-term contracts, have contributed to the creation of a gas market for which gas price is less connected to oil prices and increasingly determined by demand and supply in the market. This trend has gradually shifted Gazprom's pricing policy, which is centered on the stipulation of long-term contacts with oil-indexed prices agreed beforehand, as such contracts are more in line with the concept of Russian energy security, namely ensuring stable demand for its energy imports at profitable terms leading to steady economic revenues to bolster the country's economic development. Indeed, to compete with other providers which offer spot prices, Gazprom has started to compromise on the price contracts, introducing in the agreements a reference to spot prices for about ten to twenty percent of the overall price, maintaining the traditional oil-indexed, long-term price contracts but partially accommodating the European countries' demands<sup>253</sup>.

The European Union is also attempting to strengthen its energy security through the decarbonization strategy, aiming at developing a carbon-neutral economy. The EU has always been a forerunner in tackling climate change and one of the main promoters of the 2014 Paris Agreement. The EU's energy security concept has, therefore, come to include environmental concerns, recognizing the need to tackle climate change and reduce carbon emissions in order to ensure energy security, economic growth, and modernization. In 2017, the EU's Member States agreed on the 2030 Framework for climate and energy, setting ambitious objectives for the period 2020-2030 to "achieve a more competitive, secure and sustainable energy system"<sup>254</sup>. The targets set out by the energy framework entail a reduction in greenhouse gases emissions by at least 40 percent by 2030, compared to 1990 levels; an increase of at least 32 percent in the share of energy produced through renewable sources; and an improvement of at least 32.5 percent in the Union's energy efficiency<sup>255</sup>. The Union

<sup>&</sup>lt;sup>253</sup> T. Romanova. Is Russian Energy Policy towards the EU Only about Geopolitics? The Case of the Third Liberalization Package. Geopolitics, 21:4, 857-879. 21.03.2016. P. 870.

<sup>&</sup>lt;sup>254</sup> IEA.2030 Climate and Energy Framework. 05.11.2017. URL: https://www.iea.org/policies/1494-2030-climate-and-energy-framework.

<sup>&</sup>lt;sup>255</sup> European Commission. 2030 climate & energy framework.

URL: https://ec.europa.eu/clima/policies/strategies/2030\_en.

has later reinforced its environmental commitments when, in 2019, Ursula Von Der Leyen, incumbent President of the European Commission has proposed the European Greed Deal, adopted by the Commission of July 14<sup>th</sup>, 2021, whose objective is the reduction of CO2 emissions by at least 55 percent by 2030, compared to 1990 levels and to transform the EU's economy into carbon-neutral with net-zero greenhouse gas emissions by  $2050^{256}$ . The Green Deal is originally built upon the Union's commitment to the Paris Agreement of 2014 to reduce greenhouse gas emissions by at least 40 percent by 2030 but its targets significantly increase the ambitions of the Union and its commitment to reach carbon neutrality compared to the commitments undertaken with the Paris Agreement<sup>257</sup>. The Green Deal is also part of the NextGenerationEU Recovery Plan to respond to the COVID-19 pandemic and will be financed by one-third of the 1.8 trillion-euro investments from the Recovery Plan, in addition to the EU's seven-year budget<sup>258</sup>. Being centered on the objective of "economic growth decoupled with resource use", the EU's decarbonization strategy entails a major cut in European hydrocarbon consumption and increased investments in renewable energy to cover most of the national consumption<sup>259</sup>. This planned reduction of hydrocarbon use presents a threat to the energy security of the Russian Federation, whose economic prosperity still relies on the revenues from its hydrocarbon exports to the European market. The push for decarbonization found impetus in the aftermath of the Crimean crisis which increased the EU's mistrust in the Russian Federation, deteriorated political relations, and prompted fears about the Union's energy security. Indeed, in 2014, the link between decarbonization and independence from Russia was underlined by the EU's climate chief, Connie Hedegaard, who outlined the importance of reduced hydrocarbon consumption to lower dependence on Russia, referring to the EU's decarbonization goals as "very good news for Europe's energy security and independence. Meaning no such good news for Putin"<sup>260</sup>.

# **3.1.3** The continued dependence on natural gas and the internal discrepancies in the EU's energy diversification strategy – the case of the Nord Stream

The European Union's diversification and decarbonization strategy present some contradictions which can potentially hinder the efforts made through the years to develop alternative resources and supply routes. Indeed, while lowering dependence on Russia has become a priority of the Union's energy strategy, prompting the projects of the Southern Gas Corridor and diversification

<sup>&</sup>lt;sup>256</sup> European Commission. Delivering the European Green Deal. URL: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/delivering-european-green-deal\_it.

<sup>&</sup>lt;sup>257</sup> Morningstar R. L., Simonyi A., Khakova O., Markina I. European Energy Diversification: How Alternative Sources, Routes, and Clean Technologies Can Bolster Energy Security and Decarbonization. Atlantic Council. January 2020. P.1

<sup>&</sup>lt;sup>258</sup> European Commission. A European Green Deal. URL: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\_en.

<sup>&</sup>lt;sup>259</sup> Ibid

<sup>&</sup>lt;sup>260</sup> Harvey F. EU agrees to improve energy efficiency 30% by 2030. The Guardian. 23.07.2014.

URL: https://www.theguardian.com/environment/2014/jul/23/eu-agrees-to-improve-energy-efficiency-30-by-2030.

of resources and suppliers such as the increased imports of LNG from the US and Qatar, its Member States have undertaken other projects which would increase their dependence on Russia. One instance of such contradiction is the South Stream project which had the objective of directly connecting the Russian natural gas supplies to the territory of the EU without transiting through extra-EU countries. The South Stream project indeed was develop starting from 2006, following the first gas dispute with Ukraine that pushed Russia to seek other routes to bypass transit countries such as Ukraine, Moldova, Belarus, or Poland, depriving them of their leverage over Russian gas and decreasing transit costs. The South Stream was indeed projected to run under the Black Sea to directly connect Russia to Italy transiting through Bulgaria and Greece with one branch, and to Austria by transiting through Bulgaria, Serbia, Hungary, Slovenia, and Croatia. However, the project, launched in 2012, has been the object of major opposition by the European Commission which depicted the pipeline as a reactive project to the Nabucco, aiming to pre-empt its achievement and the diversification of gas suppliers to the Union<sup>261</sup>. Additionally, the Commission was wary of the consequences on gas prices that such project would entail and defined the South Stream, together with the Nord Stream, as Russia's tool to retain political and economic leverage over the European countries and expand its influence on Southern and Northern European countries, as the Nord Stream would serve to assert its influence on Germany, weakening Poland and the Baltic States, the main antagonists of Russia's influence in Europe<sup>262</sup>. Already halted by the clauses of the Third Energy Package, due to Gazprom's inability to gain an exemption from the unbundling clause for the construction of the onshore portions of the pipeline and its refusal to abide by the obligation of guaranteeing third-party access to the pipeline, the project has definitely been scrapped with the beginning of the Crimean crisis and replaced by the TurkStream in 2015, which delivers gas to Turkey, from where it is transported in the EU<sup>263</sup>. The TurkStream, which connects to the Balkan Stream promoted by Bulgaria despite the opposition from the Union's institutions, will deliver gas to the Balkan countries, entrenching their dependency on Russia and decreasing the efficiency of the diversification strategy.

<sup>&</sup>lt;sup>261</sup> Baran Z. Security Aspects of the South Stream Project. Policy Department External Policies. European Parliament. Foreign Affairs. 10.2008.

<sup>&</sup>lt;sup>262</sup> Ibid.

<sup>&</sup>lt;sup>263</sup> Proedrou F. Russian Energy Policy and Structural Power in Europe, Europe-Asia Studies, 70:1, 75-89. 29.01.2018.





While the South Stream has remained a project, the EU's energy diversification strategy has been substantially impaired by the Nord Stream I and II, two parallel gas pipelines running under the Baltic Sea and bringing gas directly from Vyborg and Ust-Luga, located on Russia's Baltic shore, close to the Finnish and Estonian borders, to Greifswald, located on Germany's northern coast. The construction of Nord Stream I, the pipeline starting from Vyborg and composed of two twin pipelines, began in April 2010 with the construction of Line 1, which became operational in November 2011, while the second line began operating in October 2012<sup>265</sup>. The Construction of the Nord Stream II, which originates in Ust-Luga, has incurred consistent opposition by several actors, among which the EU and the United States, and has, therefore, required a much longer and complicated process. This second branch was indeed contemplated already in 2012, but it took almost ten years to complete it. The construction of the pipeline began in 2018, after years of deadlock and was suspended in December 2019 following threats from the United States to enact sanctions against the contractors and financial investors of the project, aiming to oppose its construction as the US feared would have exponentially increased Russia's influence on the EU<sup>266</sup>. The United States was not the only country concerned by the excessive dependence of European countries on Russian gas that the Nord Stream will only entrench. The construction of the Nord Stream, the second pipeline more than the first, has

URL:https://www.gazprom.com/press/news/2012/february/article130447/.

<sup>&</sup>lt;sup>264</sup> 2003-2020 Gazprom. Parameters defined for South Stream in Slovenia. 27.02.2012.

<sup>&</sup>lt;sup>265</sup> 2021 Nord Stream. From Pipes to Pipeline. URL: https://www.nord-stream.com/the-project/construction/.

<sup>&</sup>lt;sup>266</sup> 2021 Nord Stream 2. Construction. URL: https://www.nord-stream2.com/construction/overview/

deeply divided the EU's Member States, exposed the internal fragility of the Union, and undermined its energy diversification efforts. The pipeline has indeed sparked the opposition of the Eastern European countries which are heavily dependent on Russia's hydrocarbons and have pushed for a coherent strategy of diversification that would allow breaking away from this dependence. Poland, in particular, has spearheaded the opposition to the Nord Stream already when the first branch was constructed, when the Polish Defense Minister, Radosław Sikorski compared the project to the Soviet-Nazi Molotov-Ribbentrop Pact, and Poland's President, Andrzej Duda has commented on the project for the second branch as "completely neglecting Polish interests"267. The construction of the Nord Stream II has deeply divided the EU and created uncertainty and ambivalence in the positions of Member States. Germany, understandably the main supporter of the pipeline, has been accused by the more vulnerable countries of having put economic interests ahead of the collective security interests of the Union. The Nord Stream also poses a threat to the energy security of transit countries which will witness a reduction in the gas flows and revenues from transit fees. The most damaged by the Nord Stream is of course Ukraine, whose already precarious economic situation will worsen because of the future loss in transit fees revenues which could amount to at least two billion dollars, while the EU Member States which are more reliant on gas flowing int the pipelines passing through Ukraine, such as Bulgaria, will be threatened by the reduction of the gas flows<sup>268</sup>. Indeed, having both branches an annual capacity of 55 billion cubic meters (bcm) of gas per year, the Nord Stream II will double the quantity of gas flowing directly to Germany to 110 billion cubic meters per year, slightly above the capacity of 100 bcm per year of the Ukrainian corridor, which will be employed as a residual option to bring gas to Europe<sup>269</sup>. Despite the internal divisions and the request of the most affected countries to halt the construction of Nord Stream 2, the European Union, has stated by its High Representative, Joseph Borrell, "does not have the means and tools to decide what to do with the Nord Stream 2" not having exclusive competences in the energy field. The HR/VP has stressed, indeed, that the pipeline is not an EU project in that it works against one of the tasks of the Energy Union, that is the diversification of energy sources<sup>270</sup>.

<sup>&</sup>lt;sup>267</sup> Matalucci S. Nord Stream II Project: Old Solution to New Problem(s). ISPI. 09.11.2016.

URL: https://www.ispionline.it/it/pubblicazione/nord-stream-ii-project-old-solution-new-problems-17572. <sup>268</sup> *Ibid* 

<sup>&</sup>lt;sup>269</sup> Gazprom Export. Transportation. URL: http://www.gazpromexport.ru/en/projects/transportation/.

<sup>&</sup>lt;sup>270</sup> 112 Ukraine. EU has no authorities to stop Nord Stream 2, - Borrell. 29.04.2021.

URL: https://112.international/politics/eu-has-no-authorities-to-stop-nord-stream-2-borrell-60978.html.

*Figure 13: The Nord Stream I and II*<sup>271</sup>.



The internal discrepancies among the EU Member States also risk undermining the EU's decarbonization strategy. Indeed, while presenting good potentials to strengthen the Union's energy security, the strategy's success is consequential to the level of implementation within the single Member States. While some states are more prepared to address such an ambitious strategy, other countries have not yet reached the level of economic development and energy diversification necessary to achieve the targets. Indeed, while countries such as Luxemburg, Ireland, Greece, Denmark, and Belgium are leading the implementation of the decarbonization agenda, for other states which have less diversified energy mixes and rely on a lower number of external suppliers, mostly Eastern countries like the Baltic States, Bulgaria, and Poland, the process to reach the decarbonization targets may result to be more complex, leading to internal tension and rising opposition<sup>272</sup>. Furthermore, while the decarbonization agenda entails a substantial reduction in the consumption of hydrocarbons, the electricity demand of the Union is expected to increase by 12-26 percent by 2040, as reported by the International Energy Agency, clean energy and advanced technologies will be the key to tackle the rising demand, together with natural gas, a much cleaner option than coal and oil<sup>273</sup>. Therefore, the decarbonization strategy will still have to rely on natural gas imports from Russia as the European reserves are increasingly shrinking. Indeed, one of Europe's largest sources of internal

<sup>&</sup>lt;sup>271</sup> Gazprom. Nord Stream. URL: <u>https://www.gazprom.com/projects/nord-stream/</u>.

 <sup>&</sup>lt;sup>272</sup> Morningstar R. L., Simonyi A., Khakova O., Markina I. European Energy Diversification: How Alternative Sources, Routes, and Clean Technologies Can Bolster Energy Security and Decarbonization. Atlantic Council. January 2020. P.2.
 <sup>273</sup> *Ibid.*

gas production, the Groningen gas field in the Netherlands, is almost depleted. Consequently, since 2019 the exploitation of the gas field has been limited to "exceptionally cold winter days only" and its closure will begin in 2022, to be completed within 2026<sup>274</sup>. The Groningen gas field is one of the largest domestic sources of natural gas production, amounting to about ten percent of European consumption, and its closure, together with the increasing depletion of reserves in the North Sea, is expected to create a gap in domestic production of around 50 bcm per year, causing an increasing need for natural gas imports<sup>275276</sup>. The latter, indeed, plays a fundamental role in the energy transition, particularly in phasing-out coal, being a more environmentally friendly option that can be employed in the same infrastructure for coal and deliver energy with consistently lower emission, by reducing CO<sub>2</sub> and methane emissions by 50 percent in electricity generation and by 33 percent in heat production compared to coal<sup>277</sup>. Together with coal, some EU countries are also aiming to phase out nuclear energy, which since the Fukushima incident of 2011 has become increasingly controversial, therefore, in addition to countries that had already stopped production of nuclear energy like Italy, current producers such as Germany and Belgium are committing to phasing out nuclear as well, a strategy that will further increase the need for natural gas for these countries' energy needs<sup>278</sup>. Also, the growing electrification of the economy will probably not be sustained exclusively through the employment of renewable energy resources as perfect substitutes for hydrocarbons and natural gas will cover an important role in filling the electricity insufficiencies, contributing to the increase in European dependency rate on extra-EU energy imports, which is expected to rise to 80 percent<sup>279</sup>. Therefore, despite the Union's ambitious strategies for diversification and decarbonization and its determination to lower dependence on Russian imports, the division among the Member States regarding Russian gas supplies, together with the lack of competence of the Union in steering the Member States' energy relations, risks to undermine the diversification attempts. Indeed, the construction of the Nord Stream I and II ha ensure direct access for Russia's natural gas to Europe, substantially increasing the quantity of gas delivered to the Union, jeopardizing the energy security of the most vulnerable Member States which perceive the Nord Stream as a geopolitical tool for Russia to assert its power on Europe and deprive them of the leverage that countries, like Poland,

<sup>&</sup>lt;sup>274</sup> Shokri A. The Impact of the Groningen Gas Field Closure on the Northwest European Gas Market. GECF. 31.03.2020. P.1.

<sup>&</sup>lt;sup>275</sup> Vinois J., Bros T. Russian Gas Pipelines and the European Union: Moving From a Love-Hate Relationship "With Adults in the Room"?. Jacques Delors Energy Centre. Europe of Energy. Policy Paper No. 247. 12.2019. P.2.

 <sup>&</sup>lt;sup>276</sup> Morningstar R. L., Simonyi A., Khakova O., Markina I. European Energy Diversification: How Alternative Sources, Routes, and Clean Technologies Can Bolster Energy Security and Decarbonization. Atlantic Council. January 2020. P.6.
 <sup>277</sup> IEA. The Role of Gas in Today's Energy Transitions. 07.2019. URL: https://www.iea.org/reports/the-role-of-gas-in-todays-energy-transitions.

 <sup>&</sup>lt;sup>278</sup> Vinois J., Bros T. Russian Gas Pipelines and the European Union: Moving From a Love-Hate Relationship "With Adults in the Room"?. Jacques Delors Energy Centre. Europe of Energy. Policy Paper No. 247. 12.2019. P.5.
 <sup>279</sup> *Ibid.* P.5.

retained as necessary transit routes for other EU Member States. With the issue of diversification, the way to ensure the EU's energy security is unity and coherence among the Member States, as incoherence and poor coordination can seriously jeopardize the progress achieved in developing alternative routes. Moreover, the decarbonization strategy, while geared towards the elimination of hydrocarbons, will inevitably foster the perdurance of the EU's dependence on natural gas as a substitute for coal and nuclear energy and as a necessary tool to compensate the electricity gaps that renewable sources cannot fulfill yet. This continued need for natural gas, along with the depletion of domestic reserves, will make the EU more reliant on natural gas imported from non-EU countries, among which Russia already occupies a predominant position, now further reinforced by its direct supply routes through Nord Stream I and II.

#### 3.2 Russia's bidirectional energy strategy

The European Union's attempts to maximize its energy security fundamentally contrast with Russia's energy security objectives and have fomented tensions in their energy relations. Russia is torn between the need to maintain the stability of demand from the European side and the fear that the EU's diversification strategy could jeopardize its energy security, which has pushed the Federation to undertake a policy of customer diversification. There are several points of disagreement between Russia and the EU on their energy strategies, one of the first being the liberalization of the EU energy market. The latter, as mentioned above, has been perceived by Russia as an attempt by the EU to obstacle its participation in the EU energy market and has prompted an adverse reaction, aimed at hindering the participation of European companies in the energy market. Indeed, in 2008 the Federation approved Federal Law No. 57, significantly restricting foreign investments in forty-two economic sectors, deemed as of strategic importance for Russia's economy, among which are the oil and gas industry. The adoption in 2009 of the Third Energy Package and disagreement over contract pricing, another major cause of discontent, have significantly strained EU-Russia relations. Indeed, in 2012, the EU initiated an antitrust investigation against Gazprom regarding its pricing policy, for which gas prices and indexed to oil prices and, as a response, the Kremlin issued a Presidential Decree requiring companies involved in strategic sectors, such as Gazprom, to coordinate its major decision on prices for other countries with the national authorities, increasing government control over pricing policies and supply contracts<sup>280</sup>. This climate of tension surrounding the energy relations with the EU has pushed Russia to adopt an ambivalent strategy to pursue its energy security goal as, on the one hand, Russia is taking action to further entrench the EU's dependency on its gas imports and attempts

<sup>&</sup>lt;sup>280</sup> Krickovic A. When interdependence Produces Conflict: EU-Russia Energy Relations as a Security Dilemma. Contemporary Security Policy, 36:1, 3-26. 05.03.2015. Pp. 15-16.

to obstacle its diversification projects, while, on the other hand, the country is trying to limit its dependency on the revenues of exports to Europe by diversifying its consumer pool, turning its attention to the Asian countries.

#### 3.2.1 Entrench the EU's dependency on Russia's energy

Since the gas disputes with Ukraine, the European Union has grown skeptical of Gazprom's ability to provide stable gas flows. Therefore, as a response to the Union's attempts to diversify suppliers, Gazprom has increasingly tried to restore the EU's trust in the company and promote its image as a reliable supplier. The main objective to achieve this goal and ensure the country's energy security is to construct new pipeline networks that would bypass transit countries like Ukraine, Belarus, Moldova, and Poland, with which price disagreements and political antagonism have caused insecurity and supply disruptions, damaging Gazprom's reputation. In particular, following the gas disputes of 2006 and 2009 with Ukraine and the escalation of political tensions after the annexation of Crimea and the conflict in the Donbas, Russia has prioritized bypassing Ukraine, the most problematic of the transit countries. The South Stream was one of Russia's major projects to bypass Ukraine, bringing gas to the European Union through pipelines running under the Black Sea and transiting through Turkey. With a capacity of 63 bcm per year, the pipeline construction began in 2012 and was expected to be completed in  $2015^{281}$ . The project, undertaken by Russian, Italian, French, and German companies has however encountered major opposition from the European Commission which launched an antitrust investigation against Gazprom to ensure its compliance with the Third Energy Package, and increased its opposition in response to the Crimean crisis, prompting Russia's decision to scrap the project, announced by President Putin in December 2014<sup>282</sup>. Despite the failure of the South Stream, Russia has taken a major step forward for its energy security with the construction of the Nord Stream I and II which bring natural gas directly from the Federation to Germany. The Nord Stream has fueled strong opposition from the Eastern European country, particularly Ukraine's, whose President, Volodymyr Zelenskiy, has defined the pipelines as a "dangerous weapon, posing a threat not only to Ukraine but to all of Europe", as Ukraine fears the growing European dependence on Russia to increase the latter's political leverage and commit aggressive acts against Ukrainian territory<sup>283</sup>. The Nord Stream will indeed ensure the flow of 110 bcm of gas per year directly to Germany and will allow Russia to prioritize the underwater network

<sup>&</sup>lt;sup>281</sup> ENI. South Stream. 20.07.2015.

URL: https://www.eni.com/en\_RU/eni-russia/partners-projects/gazprom/South Stream/South Stream.shtml.

<sup>&</sup>lt;sup>282</sup> Krickovic A. When interdependence Produces Conflict: EU-Russia Energy Relations as a Security Dilemma. Contemporary Security Policy, 36:1, 3-26. 05.03.2015. P.17.

<sup>&</sup>lt;sup>283</sup> Furlong A. Ukraine insists Nord Stream 2 is 'dangerous' despite German reassurances. Politico. 22.08.2021. URL: https://www.politico.eu/article/ukraine-insists-nord-stream-2-is-dangerous-despite-german-reassurances/.

over the pipelines running through Europe and concentrate the flow of additional gas to Europe in the Yamal Pipeline passing through Belarus and Poland and employ the Ukrainian corridor as a residual transit system, depriving Ukraine of most of its transit revenues and the leverage it retained over gas contracts. The South Stream project would have also allowed Russia to establish a safer link to Europe by transiting through Turkey instead of Ukraine. While this project has not been implemented, due to the strong opposition of the Commission, the antitrust investigation against Gazprom, and the escalating tensions of the Ukrainian crisis, the Federation has successfully found an alternative to deliver gas to the Union and entrench its dependency, bypassing Ukraine. Indeed, when the South Stream project has been scrapped at the end of 2014, Gazprom has started developing a new undersea gas pipeline project with Botas, Turkey's national oil and gas company, to bring Russian gas to Turkey's western shore of the Black Sea and then proceed to Europe. The TurkStream, indeed, consists of two lines each with a design capacity of 15.75 bcm of natural gas per year, of which one is destined for Turkish consumption, while the second transports gas directed to the European market, as from Turkey the gas is channeled into the Balkan Stream, a 474 km-long pipeline, constructed by Bulgaria and completed in January 2020, to deliver gas to Bulgaria, Serbia and Hungary<sup>284285</sup>. The TurkStream has permitted the Federation to compensate for the lost business caused by the cancellation of the South Stream, as it creates a way for Russian gas to be delivered to the Balkans and it has allowed Russia to avoid incurring legal disputes with the EU about compliance with the liberalization legislation, being the pipeline constructed in non-EU territory.

Another strategy enacted by Russia to ensure the dependency of the European countries is to counter the European diversification projects by consolidating its dominance over pipelines networks in the Caucasus and in Central Asia. Indeed, while the European Union looks at the Caspian region as an asset for its diversification strategy, Russia has wittingly leveraged its historical predominance over the post-Soviet States to prevent them from engaging in the energy business with the European Union. The historical heritage of the Soviet Union is resourceful for Russia, which retains control over the pipelines in the Caucasus and in Central Asia as, at the time of their construction, these countries belonged to the Soviet Union, therefore, the pipeline network did not follow state boundaries. A prominent example is that of Kazakhstan which is one of the richest countries in the world for oil and gas reserves, and the major oil and gas producer in the Caspian region, but whose energy security is dependent on Russia because of the pipeline infrastructure. Indeed, because of the

<sup>&</sup>lt;sup>284</sup> Jirušek M. TurkStream is South Stream 2.0 – has the EU done its homework this time?. Atlantic Council. 19.02.2020. URL: https://www.atlanticcouncil.org/blogs/energysource/turkstream-is-south-stream-2-0-has-the-eu-done-its-homework-this-time/

<sup>&</sup>lt;sup>285</sup> Nenov S. Bulgaria still aims to complete TurkStream pipeline extension by year-end-PM. Reuters. 01.06.2020. URL: https://www.reuters.com/article/bulgaria-serbia-idUSL8N2DE27J.

Soviet pipeline network, the natural gas extracted in Kazakhstan must first flow in the pipeline to Russia to be then sent back to the country for consumption and export, while Kazakh oil also has to come through Russia for refinery before national consumption<sup>286</sup>. This mechanism provides Russia with immense leverage over Kazakhstan and other Central Asia countries such as Uzbekistan and Turkmenistan which has enabled Russia to discourage the latter two from concluding oil and gas contracts for direct export to Europe and Kazakhstan from participating in Western pipeline projects<sup>287</sup>. Through this strategy, Russia has remained one step ahead of the European Union and undermined its diversification projects relying on Caspian energy, by ensuring control over the energy resources of the Central Asian countries and undermine the gas supplies meant for projects such as the Nabucco, leading to its cancellation<sup>288</sup>. The Federation has also tried to undermine the project of EU diversification in Central Asia by developing new pipeline projects in the area. Indeed, in 2005 Russia completed the construction of a gas pipeline running under the Black Sea, with a design capacity of 16 bcm per year to connect Russia directly to Turkey. Its construction has undermined the Nabucco and, in turn, the Trans-Caspian Project, leading to the cancellation of the former and the suspension of the latter. Indeed, the BlueStream provides Russian gas to Turkey where it flows in the Turkish pipeline infrastructure, which would have in turn been connected to the Trans-Caspian and Nabucco pipeline, rendering void their diversification potential. Indeed, while not able to prevent Azerbaijan from developing the Southern Gas Corridor with Europe, the Blue Stream has proven efficient in hindering the construction of the Trans-Caspian Pipeline and prevent the flow of Turkmen gas to Europe "as much of the gas intended for the TCP now moves through the Blue Stream", leading to the suspension of the project<sup>289</sup>. The Federation has also strongly opposed the TCP appealing to environmental concerns, requiring the consent of all five Caspian littoral states, namely, Azerbaijan, Iran, Kazakhstan, Russia, and Turkmenistan, as a" major gas pipeline would pose a serious, dangerous risk to the prosperity of the entire region"<sup>290</sup>.

#### 3.2.2 Russia's customer diversification strategy - the pivot to Asia

Another major attempt through which Russia aims to enhance its energy security is the diversification of demand. Indeed, the persistent economic stagnation in Europe and its efforts to lower dependence on Russian imports has prompted fear about the disruptive economic losses that a

<sup>&</sup>lt;sup>286</sup> Krickovic A. When interdependence Produces Conflict: EU-Russia Energy Relations as a Security Dilemma. Contemporary Security Policy, 36:1, 3-26. 05.03.2015. P.16

<sup>&</sup>lt;sup>287</sup> Ibid.

<sup>&</sup>lt;sup>288</sup> *Ibid*.

<sup>&</sup>lt;sup>289</sup> Ibid. P.18

<sup>&</sup>lt;sup>290</sup> Blagov S. Russia Tries To Scuttle Proposed Trans-Caspian Pipeline. Eurasianet. 28.03.2006. URL: https://eurasianet.org/russia-tries-to-scuttle-proposed-trans-caspian-pipeline.

substantial decrease in demand from the European side could entail for the Federation and has pushed the Kremlin to strengthen ties with the other energy markets to compensate the potential loss of European demand. In particular, Russia has turned its attention eastward to the fast-developing Asian markets and, more specifically, the Chinese market. Understandably, Russia has always considered China an alternative to the stagnating European markets, being the fastest growing economy among the world's largest economies, expected to soon overtake the United States as the world's largest economy in terms of cumulative GDP<sup>291</sup>. Furthermore, China's explosive economic growth in the past two decades, with an average growth of more than 10% of the GDP per year, has turned the country from a net oil exporter into the biggest energy-importer of the world, becoming complementary to Russia which is among the largest energy producers in the world. Additionally, the territorial proximity between the two countries favors a stronger energy partnership, with one country needing to diversify its exports and the other being short of energy resources to ensure its economic security<sup>292</sup>. Progress in the Sino-Russian energy cooperation began in the early 2000s, when the Eastern Siberia-Pacific Ocean (ESPO) pipeline, a project of Transneft, was commissioned in 2002 to bring Russian oil to China, Japan, and Korea. The 4.188 km-long oil pipeline, with an initial capacity of 80 million tons (mt) of oil per year, was completed in 2009 and exports Russian oil from oil fields located in Western Siberia, and a second branch, the Skovorodino-Daqing pipeline, was completed in 2010 with an additional capacity of 15 million tons per year, transporting oil from Rosneft and gas from Gazprom directly to China<sup>293</sup>. In 2012, a second section of the ESPO, the ESPO II was commissioned, for a length of 2.047 km and a capacity of 30 million tons per year, running from Skovorodino to the Pacific Ocean terminal at Kozmino, where it is then exported in the Asia-Pacific markets<sup>294</sup>. In 2013, Rosneft and CNPC agreed on a 25-year oil deal worth \$270 billion to deliver 15 mt per year to China through ESPO, an amount to be gradually tripled over the contract period<sup>295</sup>. The ESPO pipeline has proven to be a successful attempt to diversify Russia's oil exports. In 2016, the major receiver of oil transported by the pipeline was China, which received 69.8 percent of the exported 31.8 mt of oil, followed by Japan with 13.2 percent, and South Korea with 7.5 percent, with

<sup>&</sup>lt;sup>291</sup> Tomberg I. R. Russian interests and the new Chinese energy policy. Russia and the United States in the Evolving World Order. Moscow: MGIMO University, 2018. Ch.9. P.324.

<sup>&</sup>lt;sup>292</sup> *Ibid.* P.325.

<sup>&</sup>lt;sup>293</sup> 2021 Verdict Media Limited. The ESPO (Eastern Siberia Pacific Ocean) Oil Pipeline, Siberia, Russia. Hydrocarbons Technology. URL: https://www.hydrocarbons-technology.com/projects/espopipeline/.

<sup>&</sup>lt;sup>294</sup> Transneft Press Service. Transneft Brings Eastern Siberia — Pacific Ocean Oil Pipeline to Maximum Capacity. Transneft. 27.11.2019. URL: https://en.transneft.ru/newsPress/view/id/25213.

<sup>&</sup>lt;sup>295</sup> Agence France-Presse,2013. Koeneva M. Russia, China Sign 'Unprecedented' \$270 Billion Oil Deal. IndustryWeek. 24.06.2013. URL: https://www.industryweek.com/the-economy/article/21960574/russia-china-sign-unprecedented-270-billion-oil-deal.

smaller quantities being also shipped to Malaysia (5 percent), Singapore (1.9 percent), Thailand (1.3 percent), the US (1 percent), and the Philippines and New Zealand for about 0.6 percent<sup>296</sup>.



Figure 14: The ESPO Pipeline<sup>297</sup>.

Sino-Russian cooperation has intensified in the aftermath of the Crimean crisis, which has caused a deep cleavage in the Russian-EU partnership. Following the Crimean crisis and the imposition of sanctions, Russia has aimed to turn to China as the new pivot for its energy market. Additionally, because of environmental concerns, China is also endorsing an environmental policy to reduce its excessive dependence on coal and compensate with increased consumption of natural gas so as to lower levels of air pollution<sup>298</sup>. In May 2014, the Russian and Chinese governments signed a thirty-year agreement for the provision of 38 billion cubic meters of natural gas per year starting from 2019, through the 3000 km-long Power of Siberia pipeline, the first-ever gas pipeline from Russia to China, which draws natural gas from the Chayandinskoye field in Eastern Siberia and is expanding for around 800 km south-west to reach the Kovyktinskoye gas field through a branch which is

<sup>&</sup>lt;sup>296</sup> Tomberg I. R. Russian interests and the new Chinese energy policy. Russia and the United States in the Evolving World Order. Moscow: MGIMO University, 2018. Ch.9. P. 328.

<sup>&</sup>lt;sup>297</sup> Coyle J. J. Russian Energy Flows Move East. Eurasian Energy Analysis. 19.06.2012. URL: http://eurasianenergyanalysis.blogspot.com/2013/06/russian-energy-flows-move-east.html

<sup>&</sup>lt;sup>298</sup> Tomberg I. R. Russian interests and the new Chinese energy policy. Russia and the United States in the Evolving World Order. Moscow: MGIMO University, 2018. Ch.9. P.331.

expected to come onstream in 2022<sup>299</sup>. The \$400-billion contract signed between Gazprom and CNPC entails deliveries for a total amount of 1.032 trillion cubic meters of natural gas over the agreed thirty years, for an average price of \$387 for 1.000 cubic meters<sup>300</sup>.





The Power of Siberia, despite opening the way for gas exports to China, does not significantly threaten Europe's energy security, as the pipeline draws on natural gas fields located in Eastern Siberia, while the pipelines directed to Europe draw the gas from the Yamal peninsula, in Western Siberia, therefore, the problem of competition between China and Europe over Russian natural gas has not yet concretized. However, a more ambitious project developed by Gazprom is underway, the Altai Pipeline, or Power of Siberia 2, halted for years because of disagreements over prices and competition but for which talks have recently resumed, in March 2020, and is expected to be launched by 2030<sup>302</sup>. While initially projected to export 30bcm of gas a year, the pipeline may transport up to 50 bcm per year, drawing gas from the Yamal Peninsula reserves and transporting it to China by transiting through Mongolia, a more convenient route that could result in lower transportation costs and transit fees, as the pipeline could also supply the Mongolian market which is battling with grave

<sup>&</sup>lt;sup>299</sup> Gazprom. Power of Siberia. URL: https://www.gazprom.com/projects/power-of-siberia/.

<sup>&</sup>lt;sup>300</sup> Tomberg I. R. Russian interests and the new Chinese energy policy. Russia and the United States in the Evolving World Order. Moscow: MGIMO University, 2018. Ch.9. P.331

<sup>&</sup>lt;sup>301</sup> Gazprom. Power of Siberia. URL: https://www.gazprom.com/projects/power-of-siberia/.

<sup>&</sup>lt;sup>302</sup> Pallardy Diane. Gazprom's plans for Power of Siberia 2 pipe to China move forward. ICIS. 31.03.2020. URL: https://www.icis.com/explore/resources/news/2020/03/31/10488588/gazprom-s-plans-for-power-of-siberia-2-pipe-tochina-move-forward.

air pollution issues<sup>303</sup>. While Power of Siberia does not implicate e a threat to Europe, besides marking the official opening of the Sino-Russian gas cooperation, Power of Siberia 2 could seriously threaten the European energy security, as the two powers would compete for the same resources of natural gas and Europe's natural gas dependency on Russia is still too entrenched to risk losing its biggest supplier.





For the moment, the strategies employed by the European Union and the Russian Federation are a starting point to achieve their goal of decreasing dependency on the other and, at the same time, are fueling the energy security dilemma. The EU's diversification and decarbonization policies could represent a major step forward in the process of lowering dependence on Russia, however, as in the matters related to energy the EU is far from being a unitary actor, the energy diversification and decarbonization strategy risks being undermined by the Member States' national energy policies which disregard the Union's energy security in favor of their energy and economic benefit. Because of these discrepancies in the Union's diversification strategy and the persistent need for natural gas to achieve the Union's decarbonization policy in light of the phasing-out of coal and nuclear, the EU

<sup>&</sup>lt;sup>303</sup> *Ibid*.

<sup>&</sup>lt;sup>304</sup> Pallardy Diane. Gazprom's plans for Power of Siberia 2 pipe to China move forward. ICIS. 31.03.2020. URL: https://www.icis.com/explore/resources/news/2020/03/31/10488588/gazprom-s-plans-for-power-of-siberia-2-pipe-tochina-move-forward

will not be able in the medium-term to substantially reduce its dependence on Russia, as the opening of the Nord Stream II, expected in December 2021, and the gas flows coming from the TurkStream to the Balkans will increase the amount of Russian gas arriving in Europe, which will be reliant on natural gas despite the decarbonization strategy and inevitably Russia represents the most viable supplier. On its part, by further opening to the Asian markets Russia has managed to increase the number of customers and diversify its sources of economic revenues, but, the pivot to Asia might reveal "slower and less lucrative than the Russians had hoped", as Beijing is not willing to follow the European prices, consistently higher than those applied to China, and given that China's GDP growth has fallen sharply to 2.3 percent after the COVID-19 pandemic, but in general, it has been decreasing since 2010, and before the pandemic, in 2019, it was 6 percent, a decrease of four percentage point compared to  $2010^{305}$ . Therefore, even on Russia's part, despite the concerns about energy security, maintaining stable energy relations with the EU is the only alternative to ensure the country's economic stability as the turn to the Asian markets, so far, cannot ensure the same revenues as those provided by the more profitable exports to Europe.

<sup>&</sup>lt;sup>305</sup> Skalamera M. Understanding Russia's turn to China: domestic narratives and national identity priorities. Post-Soviet Affairs, 34:1, 55-77. 2018 P.64.

### Conclusion

The energy relations between the European Union and Russia date back to the time of the Russian and European Empires and have intensified during the period of the Soviet Union, when the EU was developing into a supranational entity, until today when the two players have become essential energy partners. Nevertheless, EU-Russia energy cooperation has been deeply affected by the two actors' historical background and, mostly, by the political developments of the twenty-first century, some of which saw Russia and the EU adopting different or colliding positions. Tension and mistrust have spilled over in the energy sphere, creating fear that excessive dependence on each other could compromise their political power. EU-Russia energy relations can be indeed analyzed, under the spectrum of realism, as an energy security dilemma where both perceive the other actor as a threat to their energy security and attempt to safeguard it, in turn posing a threat to the security of the other. The EU-Russia energy security dilemma entails that neither can maximize its energy security without jeopardizing the energy security of the other. This security dilemma originates from the interdependence of the two countries in the energy sector, as Russia is the largest supplier of the EU's oil, natural gas, and coal imports, and the EU represents the largest market for Russia's energy export, whose revenues constitute about 36 percent of its federal budget, making the country's economic wellbeing dependent on these revenues. Not being in a situation of complex interdependence, which pervades various areas of the relationship, the two actors are afraid of the interdependence switching in favor of the other, providing it with excessive leverage and resulting in disproportionate economic and political control over the other. Therefore, this vulnerability has prompted fears about their energy security, prompting Russia and the EU to look for alternative partners and resources to reduce their dependence. Political relations have also influenced energy relations between the two neighbors, both fearing that control over the energy dependence could result in excessive political influence. Therefore, the energy and political relations between Russia and the UE have been dominated, in the past two decades, by reciprocal mistrust. The purpose of my thesis is to analyze the strategies employed by Russia and the EU to reduce their energy interdependence and understand how, despite the growing reciprocal mistrust and political divergences, the energy interdependence endures.

To understand the reasons behind the EU-Russia energy security dilemma, I have analyzed the two actors' energy policies in light of their different concepts of energy security, namely ensuring stable supply at affordable prices for the EU and ensuring stable demand and high revenues for Russia, and the mechanisms of energy cooperation between the two which were never entrenched, and which have been ultimately undermined by the Crimean crisis. Therefore, I have explored the points of convergence and divergence in political relations, as political mistrust has played an important role

in shaping the perception of the other as a threat to their energy security. In particular, Ukraine's role has been pivotal in shaping EU-Russia political and energy relations in the 2000s, increasingly after 2014. Consequently, I have analyzed the gas disputes of 2006 and 2009 between Russia and Ukraine, which shaped the EU's decision of engaging in a strategy of energy diversification and decarbonization to reduce dependence on Russia as a supplier and Ukraine as a transit country, and Russia's decision to develop pipeline projects to bypass problematic transit countries to directly supply to Europe so as to restore its reputation as a reliable supplier. Additionally, the annexation of Crimea in 2014 has catalyzed the Union's new diversification projects and decarbonization strategy and fueled political friction between the EU and Russia, resulting in the imposition of reciprocal economic sanction, prompting Russia's urgency to secure demand for its energy supplies eastward and increase energy cooperation with China to compensate for the potential loss of European demand that its diversification and decarbonization strategy could entail.

In the last chapter, I have analyzed the strategies employed by the European Union and Russia to break off from their mutual energy dependence and the reasons for the endurance of their interdependence, despite their elaborate attempts to minimize it. In the aftermath of the Russo-Ukrainian gas crises, the European Union has embarked on an ambitious strategy of diversification of suppliers and energy resources. In order to diversify suppliers and reduce imports of natural gas from Russia, the Union has developed the Southern Gas Corridor, a 3.500km long pipeline project to draw Azeri gas from the Caspian Sea and bring it to Europe by transiting through Turkey and is developing the EastMed and Poseidon projects to draw natural gas from Cypriot and Israeli gas in the Levantine basin of the Eastern Mediterranean Sea and transport it to Greece and Italy. The Union has also launched, with the European Green Deal presented in 2019 by the Commission, an ambitious decarbonization strategy aimed at halving CO<sub>2</sub> emissions by 2030 through the phasing out of coal, the reduction in hydrocarbons consumption, and increased investments in renewables which would lower the Union's need for fossil fuels imports from Russia. On its part, Russia has developed a bidirectional strategy, trying to entrench the EU's dependence on its imports and reestablish its image as a reliable supplier through the construction of the Nord Stream I and II which bring gas directly to Germany bypassing Ukraine, and the TurkStream from Russia to Turkey where it then connects to the Balkan Stream, sponsored by Bulgarian, entering Europe, a strategy that has allowed the Federation to avoid litigation with the EU over the requirements imposed by the Third Energy Package, part of the Union's liberalization legislation which has hindered Russian participation in its energy market. On the other hand, Russia has increased energy cooperation with the Asian markets, in particular, China by developing new pipelines such as the ESPO I and II and the Power of Siberia

to bring oil and gas to China, the largest energy importer in the world, to compensate from the possible loss of revenues that the Union's energy strategy could entail.

Despite their ambitiousness, the strategies employed by the two actors present some discrepancies which do not allow them to break off the dependence. The European Union is undermined by internal heterogeneity which hinders its action as a unitary actor. The construction of the Nord Stream I and II strongly promoted by Germany and the TurkStream, strongly advocated by Bulgaria, undermine the efforts of diversification of suppliers by creating new routes for Russian gas to Europe, entrenching the dependence on Russia and increasing the Union's vulnerability. Additionally, natural gas plays an important role in the decarbonization policy, being a much cleaner alternative than coal and a substitute for those countries phasing out nuclear as well, and it ensures the electricity coverage that renewables are not able to provide yet. Therefore, as the EU's natural gas reserves are depleting and the Nord Stream has created a direct link to Russian gas, Russian remains inevitably the largest supplier to the Union. At the same time, while Russia has managed to diversify its exports and substantially increase cooperation with China by signing the thirty-year deal for the delivery of 1.032 trillion cubic meters of natural gas, the Federation has entrenched its energy relations with Europe through the construction of the Nord Stream and the TurkStream, as the economic revenues from Russia's energy exports to Europe are more profitable than those to China which is not willing to pay European prices. Therefore, despite having engaged in various strategies to decrease their energy interdependence and perceiving each other as a threat to their energy security, the EU and Russia continue to be fundamental energy partners because no viable alternative is currently available, perduring their interdependence, together with the energy security dilemma

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## **Executive Summary**

There are various definitions of energy security, some analyzed through the lens of the supplier, some through the lens of the consumer, others have a wider focus on other dimensions such as the environment and the wellbeing of citizens. One of the most generally accepted definitions of energy security is the one provided by the International Energy Agency as the "uninterrupted availability of energy sources at an affordable price"<sup>306</sup>. The concept of energy security has increasingly influenced inter-state relations in the past decades, particularly after the Arab oil embargo of 1973 which prompted fear among Western countries for their energy supplies and economic wellbeing, and has attracted the attention of politicians, scholars, and international organizations. Since 1973, energy security has climbed the national security agenda of states, and energy has become, for some countries like Russia, an important power tool in foreign policy, acquiring a special role in the country's National Security Strategy and Foreign Policy Concept. Indeed, in a world dominated by competition for scarce resources, in line with the realist tradition, energy has undergone a process of securitization and politicization, prompting states' concerns about their energy security and competition for energy resources.

There is a strong energy dimension to the relations between the European Union and Russia, dating back to the age of the Russian and European empires. Since the 2000s, EU-Russia energy relations have gradually developed into a security dilemma, in which each actor is concerned with maximizing its energy security and, acting accordingly, it jeopardizes the energy security of the other. The energy security dilemma originates from the EU's and Russia's interdependence in the energy field, combined with mutual mistrust caused by deteriorating political relations, which prompt fears about the interdependence shifting in favor of one actor which could use energy as a coercive tool. The energy security dilemma was fueled by the gas disputes between Russia and Ukraine of 2006 and 2009, together with the Crimean crisis of 2014, which have prompted the two actors to develop new energy strategies to safeguard their energy security. The European Union has prioritized decreasing its dependence on Russia and has endorsed a strategy of diversification of suppliers and resources by sponsoring new pipeline projects to connect to other energy exporters, increasing its imports of liquified natural gas (LNG), investing in renewables, and launching an ambitious decarbonization policy to reduce its hydrocarbon dependence and, in turn, Russian hydrocarbon imports. On its part, Russia has adopted a bidirectional strategy to ensure its energy security, working, on the one hand, to entrench the Union's dependence and promote its image as a reliable supplier by constructing pipelines bypassing problematic transit countries like Ukraine. On the other hand, it has

<sup>&</sup>lt;sup>306</sup> IEA. Energy security. 02.12.2019. URL: https://www.iea.org/areas-of-work/ensuring-energy-security.

increased energy cooperation with the Asian markets, particularly with China, to compensate for the loss of revenues that a decrease in European imports, due to lower demand prompted by its energy policy and economic stagnation, could entail. However, despite the efforts to reduce the mutual dependence, the two actors' interdependence continues, and, in some cases, it has been strengthened. The purpose of my thesis is to analyze the reasons behind the EU-Russia energy dilemma and the strategies that the two actors have employed to end the dependence and understand why, despite mutual fear of excessive vulnerability, their interdependence endures.

In the first chapter, I have provided an overview of the world's distribution of proven natural gas and oil reserves, the historical role of energy in international relations, and the emergence of the concept of energy security. Since the First Industrial Revolution, energy, more specifically fossil fuels, has influenced the development of society and the conduct of warcraft. Since the First World War and mostly during the Second World War, oil has become the predominant energy source and object of political and military disputes. In recent decades, following the environmental concerns related to oil production and consumption, the role of natural gas has complemented that oil, becoming, in turn, a dominant energy source and the object of geopolitical rivalry. The concept of energy security acquired increasing importance in the modern area during the First World War, the first mechanized war, when Winston Churchill decided to switch the power source of the British fleet from coal to oil, in light of the speed advantage that the navy would get on Germany and despite the insecurity that such a source of power entailed, not being extracted in the United Kingdom like coal, claiming that diversification is the key to energy security. Besides being a catalyst for economic development, through the years, energy has also represented a means and a reason for warfare, as reminded by historical events such as the 1941 German invasion of the Soviet Union, the 1953 coup d'état in Iran, and the Gulf Wars of 1991 and 2003. While energy has always represented a significant source for state power, its concept has been increasingly securitized in the post-WWII period, particularly after the first oil shock, with the Arab oil embargo of 1973, enacted by OPEC members against Western countries supporting Israel during the Yom Kippur War. The embargo caused a peak in oil prices and economic stagnation in Western countries, prompting them to cooperate for the protection of their energy security by forming the International Energy Agency in 1974. The first oil shock in 1973 has highlighted the relevance of energy in shaping international political and economic dynamics and the potential for it to be used as a weapon to threaten national security, while energy security acquired centrality during the 21st century when the gas wars and environmental threat convened the attention not only of states but also international organizations such as the IEA, the World Bank, and the United Nations. The concept of energy security is generally founded on the equilibrium among four principles, the so-called four As of energy security: availability, meaning the

"physical availability of energy resources"; affordability, namely the availability of energy resources at a reasonable price; accessibility, meaning guaranteed safe access to energy; and acceptability which entails the use of resources considered environmentally acceptable and ensuring the possibility for consumption also for future generations <sup>307</sup>. As mentioned above, one of the most acknowledged definitions of energy security today is the one developed by the IEA, namely energy security as "uninterrupted availability of energy sources at an affordable price"<sup>308</sup>. After providing various definitions of energy security, I have then proceeded to analyze the different interpretations of energy security in academic literature and in international relations theory, namely realism, neoliberalism, constructivism, international political economy, and the geopolitical approach to energy security. I believe that the concept of energy security, as mentioned by Liliana Proskutyakova in her work Updating energy security and environmental policy: Energy security theories revised cannot be fully comprehended through the lens of only one perspective, therefore I have decided to carry out an analysis based, on the one hand, on the realist idea of energy security, better explained by Yergin's definition of energy security as "assur(ing) adequate, reliable supplies of energy at affordable prices and in ways that do not jeopardize major national values and objectives", as energy security is subject to the interpretation of the individual state according to its needs, national security priorities and foreign policy and, at the same time, it can jeopardize the integrity of the state, which can be coerced and manipulated in its values and politics through the provision or purchase of energy resources. On the other, I also analyze EU-Russia energy relations in light of the neoliberal theory of Complex Interdependence, as EU-Russia energy relations are characterized by more or less symmetric interdependence, in line with Keohane and Nye's idea that interdependence is not intended as a perfect balance of dependence. The interdependence of Russia and EU can be defined as negative interdependence, a relationship in which both players are dependent on each other but are motivated by personal gains and self-interest, therefore attempting to exploit the interdependence by shifting the balance in their favor and exert geopolitical influence and control on the more dependent side. Given that the theory of Complex Interdependence is not limited to the idea of cooperation between states but acknowledges the possibility of conflict and the predominance of national interests in international relations, the idea is not too far from the realist interpretation of energy security and, therefore, I believe that both interpretations can be applicable to the study carried out in this thesis.

In the second chapter, I have analyzed the level of interdependence between the European Union and Russia to understand the factors triggering the energy security dilemma. The latter, indeed,

<sup>&</sup>lt;sup>307</sup> Szulecki K. Energy Security in Europe, Divergent Perceptions and Policy Challenges. Palgrave Macmillan. Oslo. 10. 2017. P.5.

<sup>&</sup>lt;sup>308</sup> IEA. Energy security. 02.12.2019. URL: https://www.iea.org/areas-of-work/ensuring-energy-security.

is the largest supplier of hydrocarbons to the Union, having a share of non-EU imports of 43.4 percent for natural, gas and 25.5 of petroleum oil in 2020 and of 46.7 for solid fuel in 2019<sup>309310</sup>. The EU presents a disparity in the energy dependency of its Member States on Russia as, while some countries like Italy have a more diversified energy market, the Central and Eastern European Countries (CEECs) are highly or exclusively reliant on Russian hydrocarbon imports, as is the case of Estonia, Finland, Slovakia, Hungary, which are dependent between 75 and 100 percent on imports of Russian petroleum oils and natural gas<sup>311</sup>. As the EU is the largest importer of Russia's fossil fuels, the revenues from exports to Europe constitute a large share of the Federation's energy exports revenues, which in 2016 made up around 36 percent of the federal budget<sup>312</sup>.

After the analysis of the interdependence, I have proceeded to define how the latter has developed into a security dilemma by analyzing the political divergences in EU-Russia relations which have contributed to creating mistrust between the two actors. I have also examined the two actors' energy policy priorities and the attempts to cooperate in the energy field, which have been undermined by the degenerating political relations, particularly following the annexation of Crimea by the Russian Federation in 2014. Therefore, I have reserved special attention to Ukraine's role in EU-Russia relations, as its swinging attitude between the EU and Russia and disputes over gas supplies with the Federation have fueled tension between the two neighbors. Specifically, I have analyzed the role of the gas disputes of 2006 and 2009 between Ukraine and Russia in sparking the Union's concerns about Russia using natural gas as a geopolitical weapon and prompting the two actors to develop new energy strategies devoted to the maximization of energy security by reducing dependence on each other and on Ukraine as a transit country. In conclusion to the chapter, I have analyzed the energy dimension of the Crimean annexation, examined under the realist perspective of competition over resources between great powers as an attempt by Russia to undermine Ukraine's efforts to reach energy independence for which the oil and gas reserves located in the Crimean territory would have been essential. Lastly, the role of Crimea in EU-Russia energy relations is pivotal

<sup>&</sup>lt;sup>309</sup> Eurostat. EU imports of energy products – recent developments. 10.2021. URL:https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU\_imports\_of\_energy\_products\_-\_recent\_developments#Overview.

<sup>&</sup>lt;sup>310</sup> Eurostat. From where do we import energy?. URL: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html.

<sup>&</sup>lt;sup>311</sup> Eurostat. EU imports of energy products – recent developments. 10.2021. URL: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU\_imports\_of\_energy\_products\_-recent\_developments#Overview.

<sup>&</sup>lt;sup>312</sup>OECD. Russian Federation. Fossil Fuel Support Country Note. June 2020. URL:<u>https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwi2s4uuxMzyAhWh\_rsI</u>HQ8ZDiMQFnoECDgQAQ&url=httppercent3Apercent2Fpercent2Fstats.oecd.orgpercent2Fwbospercent2Ffileview2.aspxpercent3FIDFilepercent3D09aac246-c7ef-4159-898e-2a287deb3341percent2520percent2520&usg=AOvVaw0jK-UYWM8uIrigHzzeohoj.

as it further deteriorated their political relations and has catalyzed the two actors' energy diversification strategies by highlighting the urgency to decrease the mutual energy dependence.

In the last chapter, I have analyzed the strategies employed by the two actors to safeguard their energy security. The European Union's approach prioritizes decreasing dependence on Russia to achieve energy security. Since the gas disputes with Ukraine, the EU has developed a strategy of diversification, sponsoring pipeline projects to draw natural gas from other suppliers and, with the adoption of the Green Deal, it is promoting an ambitious decarbonization policy to halve CO2 emissions by 2030 and reach carbon neutrality by 2050, a strategy which, by drastically reducing reliance on hydrocarbons, would, in turn, reduce dependence on Russian energy imports. Additionally, in the 2000s, the EU has also promoted the liberalization of its electricity and gas market through the adoption of three liberalization packages in 1998, 2003, and 2009 to improve competition, create a more cohesive energy market fostering the participation of new energy enterprises, increasing competition, and lowering energy prices. The 2009 bundle of legislation, referred to as the Third Energy Package, has been harshly opposed by Russia because of the clauses regarding unbundling and third-party access which, according to the Federation, are aimed at hindering Gazprom's participation in the European energy market. The main projects sponsored by the EU as a part of its diversification strategy are the Southern Gas Corridor, composed of the South Caucasus Pipeline, the Trans-Anatolian Pipeline, and the Trans-Adriatic pipeline, a 3.500km long pipeline project to draw Azeri gas from the Caspian Sea and bring it to Europe by transiting through Turkey, and the Eastern Mediterranean (EastMed) and Poseidon pipelines, to draw natural gas from Cypriot and Israeli gas reserves in the Levantine basin of the Eastern Mediterranean Sea and transport it to Greece and Italy. The Union has also endorsed a strategy of diversification of energy resources, by increasing its imports of Liquified Natural Gas (LNG) from the United States and Qatar, which, thanks to the 24 European LNG terminals, allow some diversification for those countries, like the Baltics and Hungary, that are more dependent on natural gas imports from Russia.

The EU has also launched an ambitious decarbonization strategy to reach climate neutrality by 2050 through the phasing out of coal, a substantial reduction in hydrocarbons consumption, and increased investments in green technology and renewable energy. Such a decrease in hydrocarbons consumption would, in turn, lower the EU's demand for hydrocarbons and its imports from the Federation. The European Union's objectives to maximize its energy security fundamentally contrasts with Russia's energy security goals and have fomented tensions in their energy relations. Russia is torn between the need to maintain the stability of demand from the European side and the fear that the EU's diversification strategy could jeopardize its energy security by lowering demand on its

energy exports, pushing the Federation to undertake a policy of customer diversification. Indeed, on the one hand, Russia has increased its efforts to ensure that Europe's dependency on its imports endures and to promote its image as a stable and reliable supplier by hindering the Union's pipelines in Central Asia and developing pipeline projects to bypass problematic transit countries, most importantly Ukraine. The Federation has indeed successfully constructed two parallel pipelines with an overall annual capacity of 110 bcm, the Nord Stream I and II running under the Baltic Sea, connecting the Russian shore on the Baltic Sea, from Vyborg and Ust-Luga to Greifswald in Germany, establishing a direct connection with the Union for its gas exports, without risking that any further dispute with Ukraine could cause impactful disruptions to Russia's supplies to Europe. The Nord Stream has indeed allowed the Federation to reduce the quantity of gas transiting through Ukraine, causing damaging economic losses to the country which will suffer from a loss of transit fees revenues that could amount to at least two billion dollars. The Federation has also carried out the construction of the TurkStream, with a total annual capacity of 31.5 bcm, from Russia to Turkey where it then connects to Bulgarian pipelines, entering Europe, a strategy that has allowed the Federation to avoid litigation with the EU over the requirements imposed by the Third Energy Package. At the same time, in light of a possible decrease in demand from Europe due to its economic stagnation and its diversification and decarbonization policies, Russia has turned its attention towards the Asia Pacific markets, in order to diversify its pool of customers. Being the world's major energy importer and the fastest growing economy among the world's largest economies, China has understandably attracted Russia's attention for its energy interests. The so-called "pivot to Asia" has begun in the 2000s, when the Eastern Siberia-Pacific Ocean (ESPO) pipeline, a project of Transneft, was commissioned in 2002 to bring Russian oil to China, Japan, and Korea. The 4.188 km-long oil pipeline, with an initial capacity of 80 million tons (mt) of oil per year, was completed in 2009 and exports Russian oil from oil fields located in Western Siberia, and a second branch, the Skovorodino-Daging pipeline, was completed in 2010 with an additional capacity of 15 mt per year, transporting oil from Rosneft and gas from Gazprom directly to China<sup>313</sup>. In 2012, a second section of the ESPO, the ESPO II was commissioned, for a length of 2.047 km and a capacity of 30 million tons per year, running from Skovorodino to the Pacific Ocean terminal at Kozmino, where it is then exported in the Asia-Pacific markets. In 2013, Rosneft and CNPC agreed on a 25-year oil deal worth \$270 billion to deliver 15 mt per year to China through ESPO, an amount to be gradually tripled over the contract

<sup>&</sup>lt;sup>313</sup> 2021 Verdict Media Limited. The ESPO (Eastern Siberia Pacific Ocean) Oil Pipeline, Siberia, Russia. Hydrocarbons Technology. URL: https://www.hydrocarbons-technology.com/projects/espopipeline/.

period<sup>314</sup>. The ESPO pipeline has proven to be a successful attempt to diversify Russia's oil exports, having reached China, Japan, Korea, Malaysia, Singapore, Thailand, the United States, New Zealand, and the Philippines<sup>315</sup>. Sino-Russian cooperation has intensified in the wake of the Crimean crisis, which has deteriorated Russia's relations with Europe, culminating in the imposition of reciprocal sanctions, pushing the Federation to look for alternatives to the European market. In May 2014, the Russian and Chinese governments signed a thirty-year agreement for the provision of 38 billion cubic meters of natural gas per year starting from 2019, through the 3000 km-long Power of Siberia pipeline. The \$400 billion contract signed between Gazprom and CNPC entails deliveries for a total amount of 1.032 trillion cubic meters of natural gas over the agreed thirty years, for an average price of \$387 for 1.000 cubic meters<sup>316</sup>. The Power of Siberia, despite opening the way for gas exports to China, does not significantly threaten Europe's energy security, as the pipeline draws on natural gas fields located in Eastern Siberia, while the pipelines directed to Europe draw the gas from the Yamal peninsula, in Western Siberia, therefore, the problem of competition between China and Europe over Russian natural gas has not yet concretized. However, a more ambitious project developed by Gazprom is under way, the Altai Pipeline, or Power of Siberia 2, halted for years because of disagreements over prices and competition but for which talks have recently resumed, in March 2020, and is expected to be launched by 2030<sup>317</sup>. While initially projected to export 30bcm of gas a year, the pipeline may transport up to 50 bcm per year, drawing gas from the Yamal Peninsula reserves and transporting it to China by transiting through Mongolia, a more convenient route that could result in lower transportation costs and transit fees<sup>318</sup>. The Power of Siberia 2 could seriously threaten European energy security, as the European Union and China would compete for the same resources of natural gas and Europe's natural gas dependency on Russia is still too entrenched to risk losing its biggest supplier.

Despite their ambitiousness, the strategies employed by Russia and the European Union cannot substantially reduce their interdependence. Indeed, the Union's strategy is undermined by internal contradictions which jeopardize the process of diversification and energy independence,

<sup>&</sup>lt;sup>314</sup> Agence France-Presse,2013. Koeneva M. Russia, China Sign 'Unprecedented' \$270 Billion Oil Deal. IndustryWeek. 24.06.2013. URL: https://www.industryweek.com/the-economy/article/21960574/russia-china-sign-unprecedented-270-billion-oil-deal.

<sup>&</sup>lt;sup>315</sup> Tomberg I. R. Russian interests and the new Chinese energy policy. Russia and the United States in the Evolving World Order. Moscow: MGIMO University, 2018. Ch.9. P. 328.

<sup>&</sup>lt;sup>316</sup> Tomberg I. R. Russian interests and the new Chinese energy policy. Russia and the United States in the Evolving World Order. Moscow: MGIMO University, 2018. Ch.9. P.331

<sup>&</sup>lt;sup>317</sup> Pallardy Diane. Gazprom's plans for Power of Siberia 2 pipe to China move forward. ICIS. 31.03.2020. URL: https://www.icis.com/explore/resources/news/2020/03/31/10488588/gazprom-s-plans-for-power-of-siberia-2-pipe-to-china-move-forward.

<sup>&</sup>lt;sup>318</sup> *Ibid*.

while Russia cannot effectively compensate for the loss of revenues from Europe, as contracts with European countries provide for higher prices than those that China is willing to pay, resulting in higher profits from the European market. The EU's ability to function as a unitary actor is undermined by internal heterogeneity, as the energy markets of its Member States present different levels of diversification of resources and suppliers and there is a stark division in energy security priorities, as some countries like Germany favor closer energy ties with Russia while most Central and Eastern European countries fear that the Federation could leverage their energy dependence to exert its control over their territory. Indeed, the construction of the Nord Stream I and II, promoted by Germany and the TurkStream, advocated by Bulgaria, undermine the EU's efforts of diversification of suppliers by creating new routes for Russian gas to Europe, entrenching the dependence on Russia and increasing the Union's vulnerability. The Nord Stream has been the object of strong internal debate within the Union and has fomented friction among the EU Member States, as some CEEs countries like Poland, have accused Germany of prioritizing its energy interests over the energy security of the Union. Indeed, the Nord Stream entrenches the Union's dependency on Russia and undermines the interests of transit countries like Poland, which will lose transit revenues from the decrease in gas supplies transiting through their pipelines and have ask the Union to halt the project, a prerogative that the latter does not enjoy, not having exclusive competence in energy matters. Additionally, the decarbonization strategy cannot erase the Union's dependence on natural gas, which plays an important role in the decarbonization policy, being a much cleaner alternative than coal and a substitute for those countries phasing out nuclear as well, ensuring also the electricity coverage that renewables are not able to provide yet. Therefore, as the EU's natural gas reserves are depleting and the Nord Stream has created a direct link to Russian gas, Russia remains inevitably the largest supplier to the Union. At the same time, while Russia has managed to diversify its exports and substantially increase cooperation with China by signing the thirty-year deal for the delivery of natural gas, the Federation has entrenched its energy relations with Europe through the construction of the Nord Stream and the TurkStream, as the economic revenues from Russia's energy exports to Europe are more profitable than those to China which is not willing to pay European prices. Therefore, despite having engaged in various strategies to decrease their energy interdependence and perceiving each other as a threat to their energy security, the EU and Russia continue to be fundamental energy partners because no viable alternative is currently available, perduring their interdependence, together with the energy security dilemma.