Department of Political Science

Master's Degree in International Relations

Global Studies

Chair in Global Trade

THE ECONOMIC RELATIONSHIP BETWEEN ITALY AND RUSSIA IN THE ENERGY SECTOR

Thesis Supervisor:

Professor Angelo Taraborrelli

Thesis Co-Supervisor:

Professor Igor Pellicciari

Student:

Elisa Romita

638992

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LIST OF ABBREVIATIONS

Bcm: Billion Cubic Meters

ECT: Energy Charter Treaty

GATT: General Agreement on Tarifs and Trade

GDP: Gross Domestic Product

IGA: Intergovernmental Agreement

ISTAT: Istituto Nazionale di Statistica

LNG: Liquified Natural Gas

Mtoe: Million Tonnes of Oil Equivalent

PCA: Partnership and Cooperation Agreement

TACIS: Technical Assistance to the Commonwealth of Independent States and Georgia

WTO: World Trade Organization

INTRODUCTION

Economic cooperation between Italy and Russia plays an important role in defining the bilateral relations between the two countries.

According to the data provided by ISTAT, in 2017 trade between the two sides amounted to 20.3 billion euros: Italian exports to Russia reached 8 billion euros, while Italian imports from Russia reached 12.3 billion euros.

In 2018, Italy was the seventh customer and fifth supplier of Russia, meaning that Italy is the largest trading partner for the Russian Federation in the European Union after Germany[1].

The bilateral economic relations are particularly important in the energy sector, due to the interdependence of both countries based on shared interests.

The majority of the Russian exports to Italy are in fact represented by energy sources, with Russia being the principal energy supplier of Italy.

Subsequently, the economic partnership in the energy sector between the two countries continues to play a huge role in fostering stable relations between the two sides, especially in light of the worsening of the relations between Russia and the EU initiated after the events of 2014.

On this occasion, Italy has shown willingness, despite the economic sanctions, to tighten collaboration with Russia and enhance the commercial ties that still bind Italy and Russia, and to increase trade.

Because there is a lack of specific studies on the topic of the dissertation, at least in comparison to the broader topic of economic ties between the European Union and Russia in this sector, the aim of the research is to bring innovation to this field by trying to answer a specific question: which strategies could be found in order to increase the partnership between the two sides, taking into consideration the current status of their relations, and to what extent their current energy strategies affect trade in the energy sector, considering the EU laws and directives towards which Italy is responsible?

In order to do so, the research has been divided in four chapters. The first chapter of the dissertation will focus on the historical perspective of the trade in energy sources between the two sides, by analyzing the political background that led to an increase of bilateral relations within the energy field.

It also displays the basis for the development of the energy strategy of both Russia and Italy from the 1950s onwards, underlining the reasons for its adoption and how it changed over time.

[1] Ministero degli Esteri e della Cooperazione Internazionale, "Relations between Italy and Russia", accessed August 24, 2019, https://www.esteri.it/mae/en/politica_estera/aree_geografiche/europa/i_nuovi_rapporti.html.

Moreover, it will focus on the factors that led to the creation of Gazprom, highlighting the projects born from the joint activity between the company and Eni.

The second chapter will focus on the current status of their relations after the 2000s, as well as the evolution of the Russian energy strategy and how it determined the relations between the two sides until 2009. The Blue Stream project will be mentioned as the outcome of the partnership between Eni and Gazprom.

The second chapter will then bring attention to the changes to which the energy market was subjected from 2008-2010 onwards and how they are starting to hinder the commercial relations between Italy and Russia, namely: the economic recession that the EU countries experienced from 2008 to 2011, the shift from long-term gas contracts based on oil indexation to hub prices, the efforts of liberalization of the European energy market and the adoption of the TEP, the competition towards Gazprom arising from the LNG supplies from the US, the new European policy course in terms of security and renewable energy use. These changes are affecting the presence of Russian gas and the predominant activity of Gazprom in the EU.

The second chapter will especially focus on the challenges imposed to Gazprom by the new policy course adopted by the EU in terms of energy security and growth of renewable sources. The research will highlight the outcomes of the adoption of this strategy in respect to gas trade between Italy and Russia in the long-term, given the European interest in decreasing dependency on single energy suppliers and achieve concrete results on the reduction of the emissions.

The third chapter of the dissertation will then focus on the South Stream project, seen not only as the most important joint-venture realized between Italy and Russia in recent years, but also as a case study for explaining how in the short-term the EU legislation affects the energy strategy of Gazprom in respect to the EU market.

The third chapter will highlight the geo-economic interests behind the realization of the project on the Russian side, will explain the reasons behind its failure and will assess why the project itself was regarded as a strategic tool of the Russian Federation and deemed as imbalanced in financial terms.

The fourth chapter of the dissertation will then answer the research question and will focus on providing measures aimed at strengthening cooperation between the two sides in the short-term, on the basis of the evidence that has been displayed in the research.

CHAPTER 1

The Economic Relations between Italy and Russia: A Historical Evolution of the Energy Trade from the 1950s

The cooperation between Italy and Russia in the energy field dates back to the 1950s, out of two very different political contexts. After the end of World War II Italy became part of the Western bloc which divided Europe in two halves, while Russia was already part of the former Soviet Union. These consistent political differences surprisingly did not harm the establishment of friendly relations, which became possible thanks to the different history of energy development and exploitation in these two countries.

Russia is a country blessed with natural resources. The development of gas exploitation began already in the XIX century, when natural gas was used for the first time for lighting on Aptekarsky island in St. Petersburg. Soon other cities followed this example, and they began to be supplied with several gas networks. Despite lighting being the first form in which gas was used, it soon enjoyed widespread industrial application for glass melting and metal hardening.
The first pipelines were built in Baku in 1872. As the city became the centre of the largest oil-producing region of the Russian Empire, annual natural gas consumption reached 33 million cubic meters in 1917, before the Russian revolution.

However, the Soviet Union did not lay long distance pipelines until after World War II, since during the 1930s the inflexibility of central planning impeded the utilization of gas. This choice was also due to a preference for an industrial system dominated by coal and hydropower, which favoured large industrial projects and electrification.

In this period, technical inefficiencies coupled with poor industrial growth, which caused a rapid 6 % rise in total energy consumption per year from 1913-1940 and more than 9 % annually from 1945-1960[2].

Being secondary to the oil industry, all the activities connected to gas were managed by the Head Department of natural Gas production in the period between 1948-1960. The department was placed under the Ministry of Oil Industry, which was responsible for production, transport and sales of natural gas.

The department was reorganised in the Head Department for gas industry in 1956, under the Council of Ministers of the Soviet Union, and only in 1963 the Committee of the Gas Industry was established and placed under a ministry in 1965. The Ministry of Construction of Facilities for the

[2] N. M. Victor, D. Victor, "Bypassing Ukraine: Exporting Russian Gas to Poland and Germany", ed. D. Victor, A. Jaffe, M. Hayes, *Natural Gas and Geopolitics: from 1970 to 2040*, (Cambridge: Cambridge University Press, 2006), 127.

Oil and Gas Industry was separated in 1972, and the exports of gas within this ministry were subsequently managed by Soyuzgasexport[3].

In 1955, the Soviet Union produced just 9 bcm of gas from fields located in the European part of Russia and Ukraine.

From the 1950s, Khrushev set the goal of catching United States economically in twenty years and focused on modernizing the industry.

He decided to insert gas industry development in the sixth five-year plan (1956-1960), and his eight five-year plan (1966) he recognized the importance of the Siberian gas reserves, marked with the opening of the fields in Urengoy. These Siberian supplies were connected to the already existing network of pipelines to link this field to the major centres of demand.

Thus, the modern oil strategies of the Soviet Union began to take shape after World War II: between the 1950s and 1960s, Soviet oil output had doubled, making the Soviet Union the second largest oil producer in the world, supplying both Eastern Europe and Western Europe[4].

As the Soviet Union kept the producing cost low, it was possible for them to sell oil at prices 50% lower compared to the Middle East.

The role of natural gas exporter grew constantly from the 1960s onwards: intense negotiation process took place between 1965- 1970 between the Soviet Union and several European states, in the middle of the Cold War.

The situation of Italy was very different. Before World War I, Italy's industry was dominated by coal. The new century saw also the development of hydroelectricity, considered a great resource because of the abundance of water resources of the peninsula.

The interwar period signed the beginning of the search for energy independence and commitment to the production of electric power from internal sources.

The first goal was difficult to achieve, since Italy was an energy importer, with scarce availability of domestically produced solid fossil fuels.

The search for energy self-sufficiency as sharpened by the autarky goals of the fascist period, marked by the creation of AGIP, a new state oil company, by the fascist government.

AGIP discovered oil and methane deposits in the late 1940s, located in the Po Valley. The newly found reserves were rich in methane and poor in oil, but they were supplied to the industries of north-west through implants and pipelines managed by SNAM (Società Nazionale Metanodotti), a company controlled by AGIP.

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[3] T. Smeenk, "Russian Gas for Europe: Creating Access and Choice. Underpinning Russia's Gas Export Strategy with Gazprom's Infrastructure Investments", (PhD diss., University of Groningen), 2010, https://www.rug.nl/research/portal/files/13025746/16_thesis.pdf.

[4] Gazprom, 40th Anniversary of Russian Gas Supplies to Italy, 2009, accessed June 16, 2019, http://www.gazprom.com/about/history/events/italy40/.

A policy of oil nationalism fostered the creation of Eni (Ente Nazionale Idrocarburi) by Enrico Mattei, who later became the president of the company.

After the war oil prices stabilized and became cheaper in comparison to the average price of coal before World War II, and this made oil very appealing for countries that lacked resources of solid fossil fuels, like Italy, making oil and natural gas a substitute of hydroelectricity and coal.

Natural gas gained an important role in the national economy and between 1950 and 1970 its consumption grew from 0.42 to 10.82 Mtoe, while its contribution to total energy consumption ranged in the 1960s between 9% and 11%[5].

Enrico Mattei established a monopoly over exploration and production in the Po Valley, which allowed Eni to self-finance its activities and grow without depending on state aid.

Soon, however, natural gas supply was recognized to be insufficient.

In 1953, in order to rationalize the huge growth of the public energy sector, all the state companies operating in the oil field were put under the authority of Eni, the new state holding company.

For many years, Italy played a role in refining products and selling them to foreign countries, but the discovery of new oil fields in the Middle East and the need to build safer places for the refining activities, helped Italy to gain a new status in the Mediterranean area and gave rise to many independent refining companies.

Despite significant progress, the process of reconstruction after the war and the subsequent economic boom caused a lack of resources: this need was overcome by seeking raw materials abroad.

The competitive price at which the USSR was selling its oil were appealing for the Italian industries. Therefore, cooperation of Soviet energy enterprises and Eni started based on common economic interests. From the late 1950s Eni started to seek agreements with USSR, looking forward to a policy meant to be beneficial for both countries. In fact, meeting Italian demands in the energy field ensured sustainable earning of convertible currency for the Soviet Union.

In 1958 Eni inked the first contract for delivery of a considerable amount of oil from the USSR. The contract provided that Eni would import 80 thousand tons of oil amounting to $ 360 thousand. In turn, Eni exported 10 thousand tons of synthetic rubber worth in excess of $ 1 million. Initially, 3 thousand tons were to be supplied within the first quarter of 1959 and the remaining 7 thousand tons later on that year. As years passed by, this contract proved that Eni was a pioneer since the company had foreseen the huge prospects for cooperation between the two countries since the early 1950s[6].

[5] P. Toninelli, "Energy and the Puzzle of Italy's Economic Growth", Journal of Modern Italian Studies, vol.15, no. 1 (Jan. 2010):107-127, https://www.tandfonline.com/doi/pdf/10.1080/13545710903465598?needAccess=true.

[6] Gazprom, "40th Anniversary of Russian Gas Supplies to Italy."

Moreover, trade cooperation with Italy provided the Soviet Union with machinery and high-tech equipment needed for the economy restructuring that had started in 1956.

On October 12, 1960 Enrico Mattei and the Minister of Foreign trade Patolichev signed in Moscow a very important contract on crude oil supply from the USSR to Italy.

According to the words of Giuseppe Ratti, who was in charge of the deal, the agreement was the result of previous negotiations between Enrico Mattei and the Russian Prime Minister Kossighin[7].

The agreement was likely to become possible due to the good reputation deserved by Eni's president and the company's employees in the USSR. That is why, with due regard to Eni's credibility in the USSR, Soyuznefteexport added a provision, which was very beneficial to Eni, impeding the Soviet oil company from oil sales to other purchasers in Italy from 1961 to 1966.

As Mr Enrico Mattei pointed out, the deal was important because it allowed Italy to import natural resources and export the labour of the Italian industry sector[8].

The contract made between Eni and the Soviet oil company in 1960 shocked the public opinion and caused a great number of adverse reactions: NATO considered the equipment and pipes shipped to URSS to be strategic material, and the Western foreign oil companies asked for the American intervention. The company Esso refused to allow the refinery of the oil imported by Eni from the Soviet Union in the Stanic refineries[9].

Under the contract, the Soviet Union had to export 12 million tonnes of crude oil to Italy within four years in exchange for 240 thousand tons of large-diameter pipes and equipment for oil pipelines produced by the Finsider company, as well as 50 thousand tons of synthetic rubber.

In 1965 the bilateral relations initiated in the beginning of the 1960s between Italy and the Soviet Union increased, as well as the cooperation between Eni and foreign companies. The natural gas resources of USSR were at this time particularly important for Italy, since the internal resources were not enough to meet the internal demand[10].

Because of this issue, Eni examined the possibility to import natural gas from countries which displayed important reserves.

However, it soon emerged the impossibility to import natural gas from areas considered too peripheral, excluding the possibility to import from countries like Nigeria or Venezuela. Eni focused instead on importing resources from nearer geographic locations, which would make importing economically sustainable.

Several contracts with these countries were signed in this period, for the importation of liquified natural gas (LNG): for instance, Eni entered a contract with Libya.

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[7] G. Ratti, "Con Mattei all'Estero", ed. F. Venanzi, M. Faggiani, *Eni, un'autobiografia*, (Milano: Sperling e Kupfer, 1994), 197-200.

[8] Archivio Storico Eni, *Text of the Interview of Enrico Mattei in Moscow*, October 11, 1960.

[9] G. Ratti, "Con Mattei all'Estero",197-200.

[10] Gazprom, "40th Anniversary of Russian Gas Supplies to Italy."

It soon became clear that Libya had no possibility to expand exports. Moreover, negotiations with the Netherlands and Algeria have brought no results.

It seemed convenient for Eni to integrate the already acquired natural gas resources with the ones coming from the Soviet Union.

Contributing to this decision were the contract conditions for imports from the USSR, which were economically favourable in respect to the other cases. Also, it would have been possible to achieve in a more appropriate way the objectives of the diversification of supplies, expressed in the "1° Rapporto della Commissione Consultiva per l'Energia".

The importation process from the Soviet Union allowed to diversify also the source of natural gas, since the payment would be compensated by the supply of materials.

Thus, the company SNAM, which was urged for securing energy supplies and search for more acceptable prices for energy resources, decided to import natural gas from the Soviet Union, despite the major challenge brought by the need to cross the border of different states.

This decision meant the need to lay a pipeline. However, because of reasons related to the position of the governments of the two countries, the negotiations did not bring results before 1969.

The first negotiations were initiated by Eugenio Cefis, President of Eni, and the head of USSR Ministry of Foreign Trade. Cefis proposed that the supply of the equipment would aid the Soviet Union to lay a pipeline able to carry natural gas, and that the relevant expenditures would be covered through Soviet gas supplies.

Payment with equipment in exchange for gas was very needed by the Soviet Union to carry on several domestic projects: this equipment would aid the Soviet Union to build a conduct able to carry natural gas to Moscow from the Siberian sites. In fact, the need for the development of the Western Siberian gas reserves located at the east of the Ural Mountains was recognized by Brezhnev in the eight five-year plan (1966-1971), and in the same years other gas fields were discovered in Orenburg and in the Yamal peninsula, at the beginning of the 1970s[11].

On the basis of these first negotiations between Eni and the Soviet authorities, it was established that USSR would have had the task of handling the gas at the Russian-Hungarian border, while the importing countries (Italy, France, Hungary) would have carried the gas from the border through a pipeline that needed to be constructed by the importing countries.

The gas supplies were expected to begin in 1971.

Initially, the Soviet Union suggested that the gas pipeline should have run through Hungary and Yugoslavia. There have been negotiations with the Yugoslavian and Hungarian authorities, who were positive about the construction of the pipeline which would have supplied also their countries.

[11] T. Smeenk, "Russian Gas for Europe: Creating Access and Choice. Underpinning Russia's Gas Export Strategy with Gazprom's Infrastructure Investments."

However, because they admitted not to be able to bar the price for the construction, this option was dismissed.

Later on, in order to tackle new challenges a decision was made to lay the gas pipeline route across Czechoslovakia (for 400 km) and Austria (for 390 km).

This solution offered numerous advantages: the most important, the delivery from Austria to Italy would have been faster[12].

The Soviet Union had to become the title-holder for the pipeline section located within the country's territory, the remaining part of it was to be owned by the respective countries.

Nikolay Osipov, Deputy Minister of Foreign Trade of the USSR was appointed to be in charge of the deal. However, the negotiations soon reached a stop, since Italy had to cope with difficulties to come to an agreement because of the issue of state loans.

The Eni management was advocating the agreement before the Italian Government: the growth of natural gas production and consumption up to 7.7 bcm in 1965, and domestic production was expected to be too scarce to meet the growing demand in the future.

In early 1967 Moscow was exerting an increasing pressure on the Italian Government in order to find a way out for the negotiations in the short term. Nikita Ryzhov, the USSR Ambassador to Italy insisted that it was necessary to make an agreement as soon as possible, or otherwise the Soviet Union would have considered other proposals.

The issue was settled on April 15, 1967, when the Italian Government approved the agreement between Eni and the Soviet Union, after a meeting chaired by the Prime Minister of Italy Aldo Moro, together with a number of Ministers and Guido Carli, Head of the Bank of Italy.

The pipeline project was agreed upon in late 1969: on December 10, Nikolay Osipov and Eugenio Cefis signed the agreement in Rome. The agreement envisaged natural gas supply for 6 bcm per annum for 20 years and provided for the USSR to deliver over 100 bcm of natural gas to Italy. The Soviet Union was granted a loan of $ 200 million for the procurement of pipelines and equipment for the gas industry from Italian companies. The actual delivery of the first gas occurred on May 1, 1974.

Therefore, in the agreement for gas supplies to the Czech-Austrian border, a joint venture was set up with OMV, Austria's leading gas company. The joint venture was to carry out construction and management of the Austrian 380-kilometer-long gas pipeline section.

On June 8, 1974, in San Donato Milanese took place the official opening of the gas pipeline, an event in the presence of Mariano Rumor, Prime Minister of Italy, Sabit Orudzhev, the USSR Gas Industry Minister and Nikolay Osipov. During the event, Mariano Rumor held a ceremonial speech underlining the importance of the gas pipeline construction for Italy.

[12] Archivio Storico Eni, *Promemoria*, 1966.

Other agreements were signed in addition to the one of 1969: a second contract or the additional supply of 1 bcm of natural gas per annum was signed in 1975, and a third contract providing for an increase in Russian gas supplies up to 8 bcm was signed in 1986. The third contract added a new agreement which allowed to receive additional volumes of gas through the operations linked to financing the supply of goods and services of Italian origin and aimed at upgrading the equipment for gas exports from Russia to Western Europe[13]. Between 1970 and 1991, the annual gas production in the Soviet Union increased of an average 4.6 % per year, and due to the development of the western Siberian gas fields, the Soviet Union became the largest gas producer in the world[14].

It is important to recall that at the time, the cooperation with the Soviet Union in the gas sector was deeply influenced by the oil shocks of the 1970s, that turned additional attention towards gas as a useful alternative to petroleum. Especially in the 1980s, an increasing share of oil consumption was substituted by natural gas, which expanded as far as the mid 2000s. From the 1970s onwards, several West European states other than Italy signed multi-decade contracts with the USSR, like Germany, Austria and France. Also because of these premises Eni pioneered a number of bilateral gas deals with Gazprom as oil declined relative to natural gas in generating electricity[15].

The oil shock changed also the energy strategy of the Soviet Union: higher oil prices boosted the production of gas to replace oil, while also lifting the price that the USSR charged for the exports. Planners linked the West Siberian fields with demand centres in the West. Projects for Western nations involved hard prices for the gas, usually indexed to the price of oil, which gas was replacing. The financing arrangements included hard currency loans offered at concessionary terms and secured by physical shipments of gas delivered to the State-owned Western European companies. In particular, the arrangements between the Soviet Union and Western European companies (including Eni) were designed to provide mutual benefit by signing the long-term oil indexed contracts (concluded for 20, 25 or 30 years), which included an obligation to purchase at least 75–85% of the named quantity. These 'take-or-pay' clauses allowed the two parties to share the risks between them: the producer bore the price risk, the importer the risk of failing to sell the full quantity. The contracts included provisions for adapting prices to changing market conditions at regular intervals. Oil indexing followed the principle of basing gas prices on those for oil,

[13] Gazprom, "40th Anniversary of Russian Gas Supplies to Italy."
[14] T. Smeenk, "Russian Gas for Europe: Creating Access and Choice. Underpinning Russia's Gas Export Strategy with Gazprom's Infrastructure Investments."
[15] M. Skalamera, "Italy's Path to Gas Liberalization. Corporate Power, Monopoly, Distortions and the Russia Factor", Belfer Center for Science and International Affairs, April 23, 2015, accessed on July 2, 2019, https://www.belfercenter.org/publication/italys-path-gas-liberalisation.

because of the advantage that linking gas prices to oil made the producer unable to influence this mechanism[16].

The atmosphere of détente meant that the Western European nations shared a common interest with the Soviet Union in advancing commercial exchange, in the idea that shared infrastructure would link the two blocs together.

From the Western perspective, they would make the Soviet Union a less threatening country, and at the same time the Soviet Union, thanks to the deals involving hard currency and Western technology, was able to develop the Western Siberian fields. The effect of the investment in the gas sector was huge, and the USSR earned $14.7 billion from gas and oil exports in 1980. The Reagan administration of the '80s erased the Western consensus on Soviet oil and gas imports, putting an end to the dètente era, after the Soviet invasion of Afghanistan in 1979.

Sanctions that were imposed during the presidency of Carter were maintained during the presidency of Reagan, in an attempt to limit the hard currency that the USSR could earn through its exports[17].

The end of the Cold War signed also the beginning of the Gazprom era.
In 1989, after the reforms of Gorbachev, the Ministries of the Oil and Gas Industries were merged into one ministry, Gazprom, responsible for the production, distribution and sales of gas within and outside the Soviet Union and organized as a State-controlled committee. It was again reorganized by presidential decree into a joint-stock company after the fall of the Soviet Union. The Russian joint stock company Gazprom was to be privatized in three years, forming an open joint stock company. During this period Gazprom's managers faced two tasks: retaining control over the company and boosting profits. The first goal from 1989 to the mid-1990s was not met completely, since gas processing facilities in Siberia fell into alien hands. Moreover, the government retained control over Soyuzgasexport (the state entity responsible for the gas marketing), putting the most lucrative Western sales outside of Gazprom's control. In the end Gazprom obtained control over Soyuzgasexport and consolidated control over almost all the Russian gas exports in the early 1990s[18].

In the same way, in the 1990s, Eni was progressively privatised. In 1992 it was converted into a joint stock company, with the Treasury owning 100% of the shares. Between 1995 and 1998, the government's shares in Eni were reduced to 30.3%. As regard to natural gas imports, Eni, through SNAM, was the sole importer of gas into Italy, until ENEL signed its import contract in 1992. Italy's strategies in the energy sector have been fostered by Eni, that has been actively involved in most governmental energy decisions even after privatization. On a strategic level, partnership with

[16] Ibid.
[17] N. M. Victor, D. Victor, "Bypassing Ukraine: Exporting Russian Gas to Poland and Germany", 132.
[18] Ibid,139.

Gazprom defined the Italian position in terms of its energy strategy: the its logic of Eni has always been that the more Gazprom is embedded in the Italian market, the more Italian gas security is enhanced. However, it should be underlined that Eni, being a private company, is driven by profit maximization, to a certain extent and it is less bound to the country's strategic energy decisions[19].

The collapse of the Soviet Union signed a period of difficult cooperation between Italy and Russia. Shortly after the Soviet Union and its institutions collapsed, between 1994 and 1996, the former Eastern European states and the Baltic states applied for membership of the EU and were accepted into the EU.

A proposal was made in 1991 by EU, to form a European Energy Community. This produced the Energy Charter.

In the last days of the Soviet Union, the European Commission's approach was not aimed at reducing energy imports from Russia. Instead, it aimed at ensuring the participation of capital from the EU in Russia's energy sector and protecting these investments on the basis of institutionalized rules agreed at the international level rather than individual deals between the parties. An international regime was needed to limit the potential of political actors to interfere with economic actors[20].

This logic was at the basis of the Energy Charter Treaty in 1991, with the idea of creating an international regime regulating investment, trade, and the transit of energy resources. The treaty was signed in 1994, but never ratified by Russia. Initially, attempts were made to include Russia in the Energy Charter, and subsequently, through the energy dialogue, to accept the production sharing agreement formula (PSAs). However, Russia opted for its own approach, by controlling gas flows and export routes and securing market access.

The difficulties with payment defaulters, the relatively low regulated gas prices and the diminishing demand for gas in Russia and in the other former Soviet republics during the 1990s forced Gazprom to focus on the European export markets to generate hard currency income[21].

Despite the changes that the newly born Russian Federation was undergoing, trade between Italy and Russia still in place: in July 1990, SNAM and Gazprom signed a cooperation agreement, defining the priority measures for the modernization of the network of the Russian federation's primary gas pipelines.

In December 1992 a contract for the supply of materials and equipment was signed between Tragaz (Snamprogetti/Nuovo Pignone Consortium) and Gazprom, for a total amount of $ 1,900 million,

[19] M. Skalamera, "Italy's Path to Gas Liberalization. Corporate Power, Monopoly, Distortions and the Russia Factor."

[20] J. Gratz, Energy relations with Russia and Gas market liberalization, March 2009, accessed June 26,2019, https://library.fes.de/pdf-files/ipg/ipg-2009-3/06_a_graetz_us.pdf.

[21] T. Smeenk, "Russian Gas for Europe: Creating Access and Choice. Underpinning Russia's Gas Export Strategy with Gazprom's Infrastructure Investments."

85% of it financed by a pool of banks organized by Mediocredito Centrale, the Banca Commerciale Italiana and the West Merchant Bank of London. Supply of the relevant financial resources were linked to the purchase of natural gas by SNAM within the framework of an agreement stipulated in August 1992 between SNAM and Gazexport for the supply to Italy of additional quantities of natural gas in the amount of 5.5 bcm a year for 20 years, starting in 1995-96. Part of the equipment envisaged by the contract had to be produced by Nuovo Pignone in cooperation with Russian companies, within the context of the reconversion programme of the former USSR's armaments industry.

Moreover, in the context of the cooperation between Eni and Gazprom in the natural gas sector, was examined the possibility of participating in the development of the Jamal peninsula Gas project. Saipem was responsible of studying possible forms of collaboration with Rosneft, an associate of Gazprom for the development of offshore reservoirs.

In January 1994, AGIP and Lukoil signed an agreement for an exchange of participations which enabled AGIP to take part not the development of a Lukoil deposit in Siberia, and Lukoil to participate into two AGIP concessions in the Tunisian offshore, where Lukoil operated offshore for the first time.

AGIP participated to the development of the reservoir of Vostochno Pridoroznoye in Western Siberia, through an AGIP-Lukoil joint venture. The agreement made possible the export of 100 million barrels of crude oil in 20 years.

Moreover, in 1992, Eni, Agip Petroli and AGIP, together with Lukoil formed a mixed company with the aim of providing assistance in the development of the Russian petroleum cycle and promoting initiatives.

In the sector of refining and transport of petroleum products, Agip Petroli and Snamprogetti were engaged in various initiatives concerning industrial projects and the supply of technical assistance: among the initiatives was the modernization of a number of refineries and petrolchemical plants. The first service station managed by a mixed company, Neftoagip (in which Agip Petroli and Mosneftprodukt have equal shares) has been in operation in Moscow for two years. This was the first example of joint activity in the sector of petroleum product distribution[22].

The fourth extension of the contract between Gazprom and Eni occurred in 1996 and provided for additional gas supplies to Italy for 8.8 bcm until 2008[23].

In 1998 an agreement between Eni and Gazprom signalled a new phase of cooperation between the two partners. The Strategic Alliance Agreement is a significant example of cooperation, which entails:

[22] ECOS, "Eni in the Russian Federation", no.2, (1994): 17-20.

[23] Gazprom, "40th Anniversary of Russian Gas Supplies to Italy."

-Joint ventures for exploration, production and development of oil and natural gas fields in various countries;

-Common activities for the optimization of the gas transportation logistics;

-Development of joint projects in the electricity and Co-Generation sectors;

-Exploration and joint development of the hydrocarbon fields in the Astrakhan region.

-The Blue Stream project, which will be addressed in the second chapter, is particularly important for this Strategic Alliance[24].

[24] A. Ptashkin, "Vladimir Putin meets Eni", ECOS, no.4, (2000): 18-29.

CHAPTER 2

The Current Status of the Energy Relations from the 2000s in Light of the EU Energy Policy

The presidency of Vladimir Putin in 2000 changed the energy strategy of the Russian Federation. In order to stabilize the economy of the country, he put the energy sector under State control, reversing the liberal policies of the two decades before. Though Moscow's energy strategy became fairly strong, it helped to bring about a more stable economy of Russia[25].

Energy was chosen at the EU-Russia Summit held in Paris on 30 October 2000 as an important component for supporting deeper integration in the EU. Since then, energy markets have changed and have become increasingly globalised, while concerns about climate change have grown. This has led producer and consumer countries to seek sustainability and security in their energy strategies[26].

From the 2000s onwards, Russia maintained and stabilized its role of major producer and exporter of energy sources, a role which is confirmed by the current statistics.

The picture below (fig.1) clearly displays the major trade movements in both pipeline gas and LNG which took place from the Russian Federation in 2018.

[25] L. Goodrich, "The Past, Present and Future of the Russian Energy Strategy", Stratfor, February 12, 2013, accessed June 27, 2019, https://worldview.stratfor.com/article/past-present-and-future-russian-energy-strategy.

[26] The European Commission, "Roadmap: EU-Russia Energy Cooperation until 2050", March 2013, accessed July 22, 2019, https://ec.europa.eu/energy/sites/ener/files/documents/2013_03_eu_russia_roadmap_2050_signed.pdf.

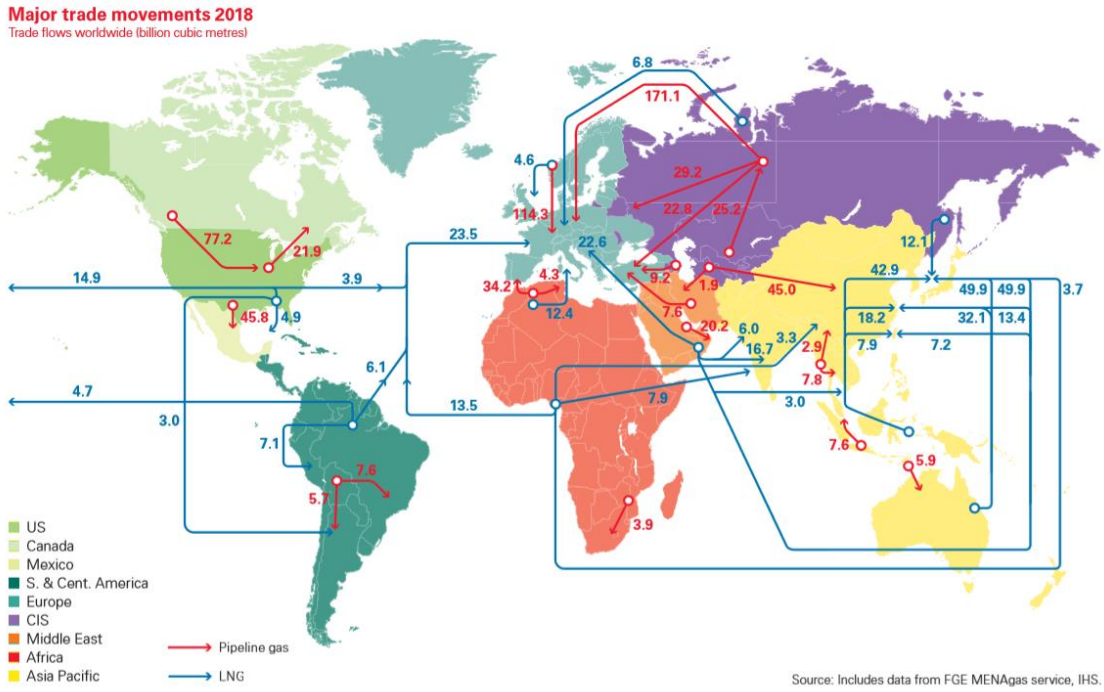

Figure 1: Major Trade Movements 2018

Source: BP Statistical Review of World Energy, 2019

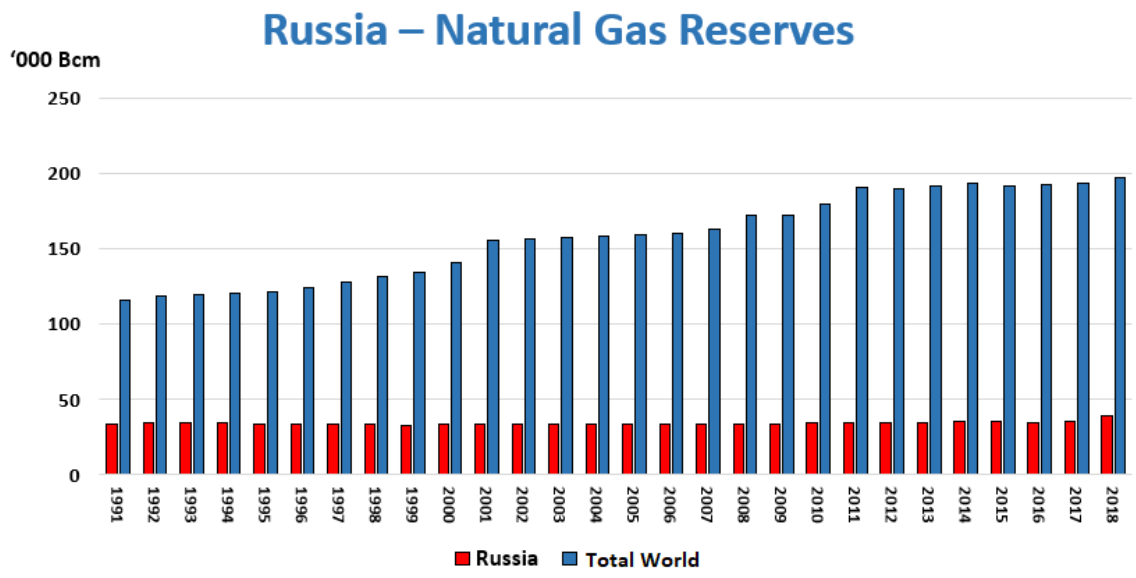

Figure 2: Russia- Natural Gas Reserves

Source: BP Statistical Review of World Energy, 2019

Natural gas reserves in Russia, in the period 1991-2017, have remained stable (fig.2). On the other hand, natural gas production saw a slight growth rate of the 0.6% per annum between 2007 and 2017. Natural gas production in Russia, in 2018, stood at 669.5 bcm, which is significant compared to the world total production, which stood 3867.9 bcm in the same year (fig.3).

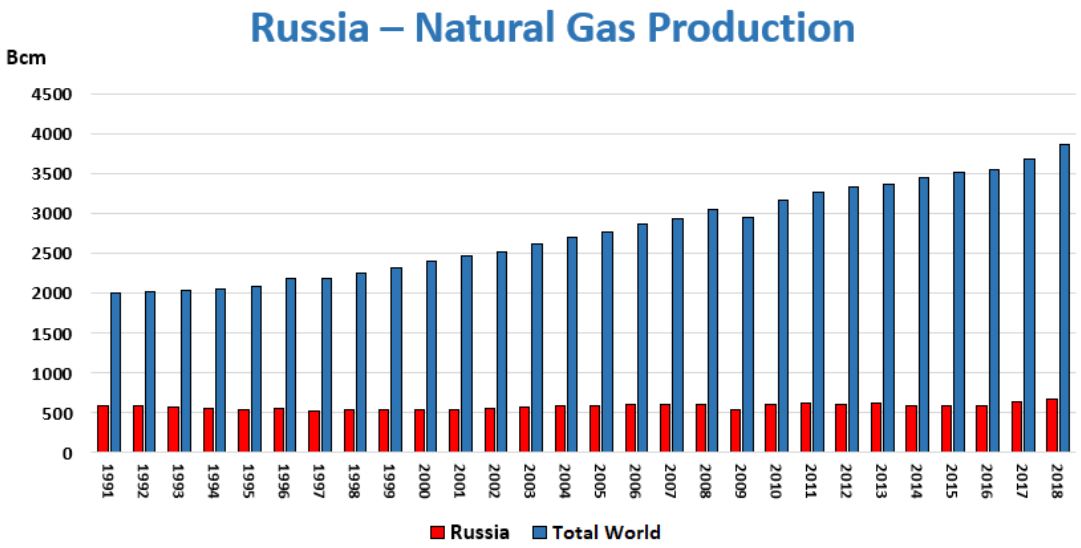

Figure 3: Russia- Natural Gas production

Source: BP Statistical Review of World Energy, 2019

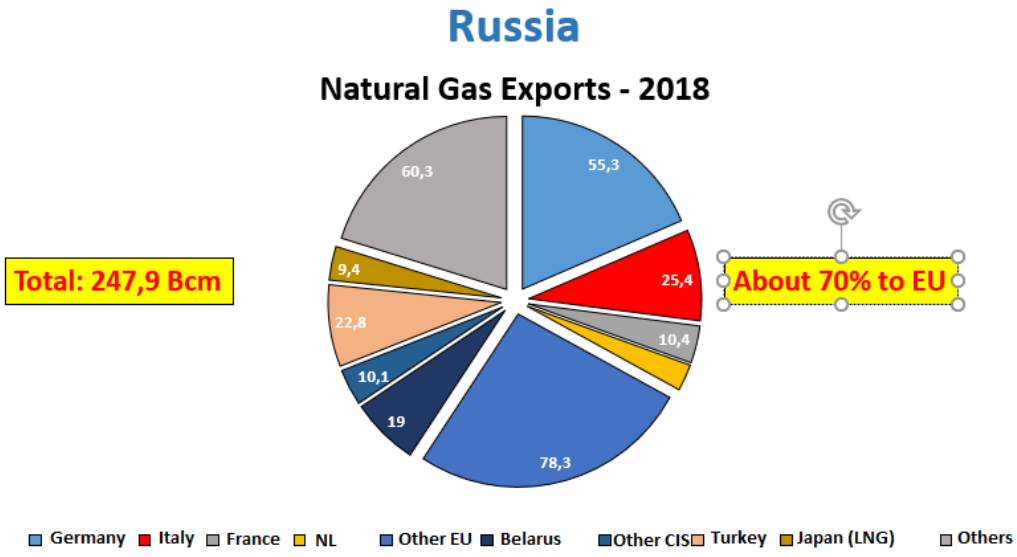

Figure 4: Russia-Natural Gas Exports in 2018

Source: BP Statistical Review of World Energy, 2019

In 2018, Russian exports in natural gas stood at 247.9 bcm. About 70% of these exports were directed to Europe, which is the biggest export market for the country: 193.8 bcm of natural gas have been supplied to Europe in the same year. 25.4 bcm of the total have been directed to Italy, one of the biggest Russian trading partners in the EU.

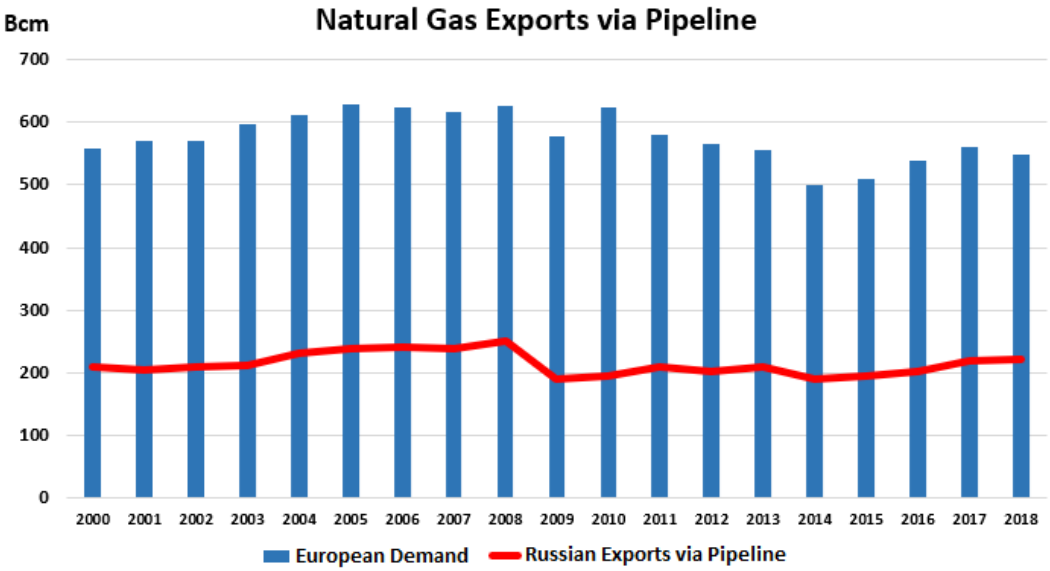

Figure 5: Natural gas Exports via Pipeline

Source: BP Statistical Review of World Energy, 2019

The exports of natural gas via pipeline from Russia stood at 223 bcm (fig.5) in 2018, while the exports in LNG from stood at 24.19 bcm in the same year, with a growth rate per annum of 61.5% (fig.6).

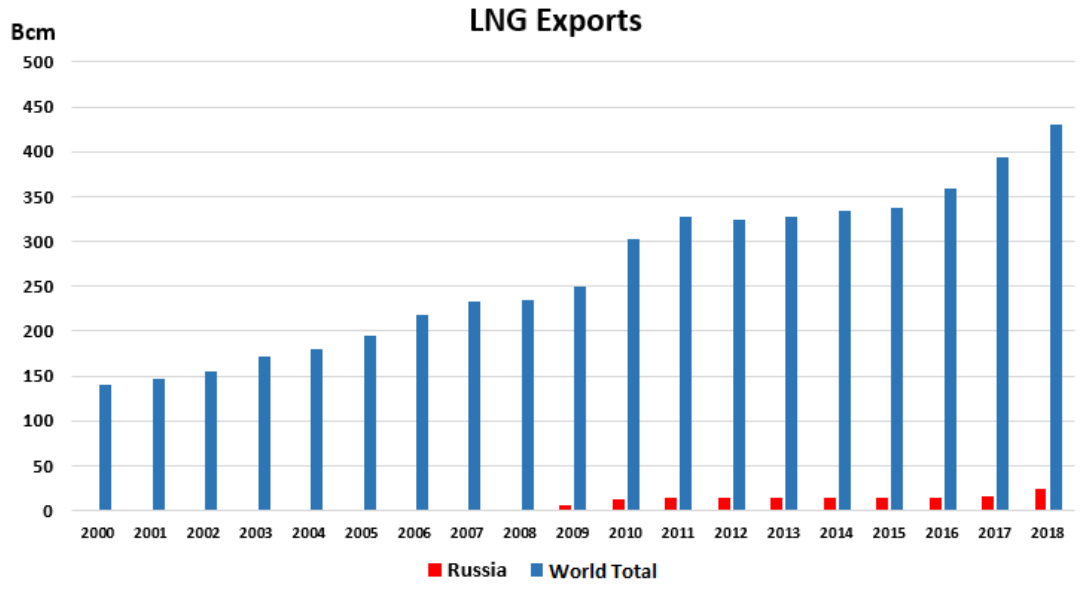

Figure 6: Natural gas: LNG exports

Source: BP Statistical Review of World Energy, 2019

Similarly, the picture below (fig.7) displays the major trade movements in oil which occurred from the Russian Federation in 2018.

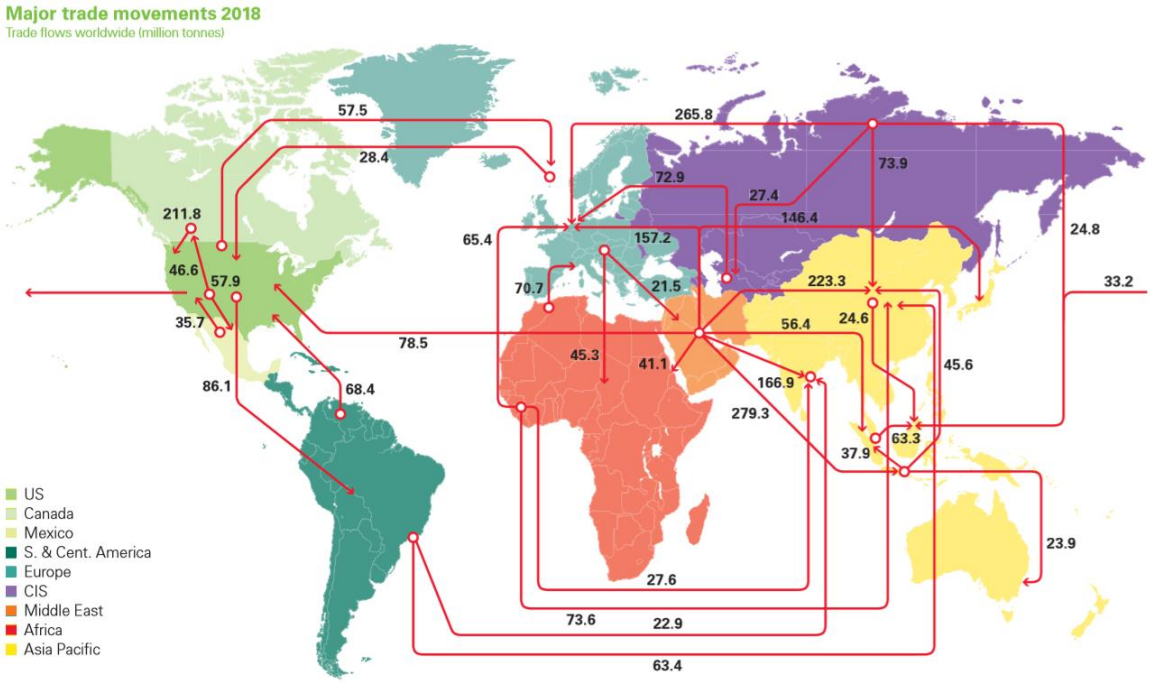

Figure 7: Major trade movements 2018

Source: BP Statistical Review of World Energy, 2019

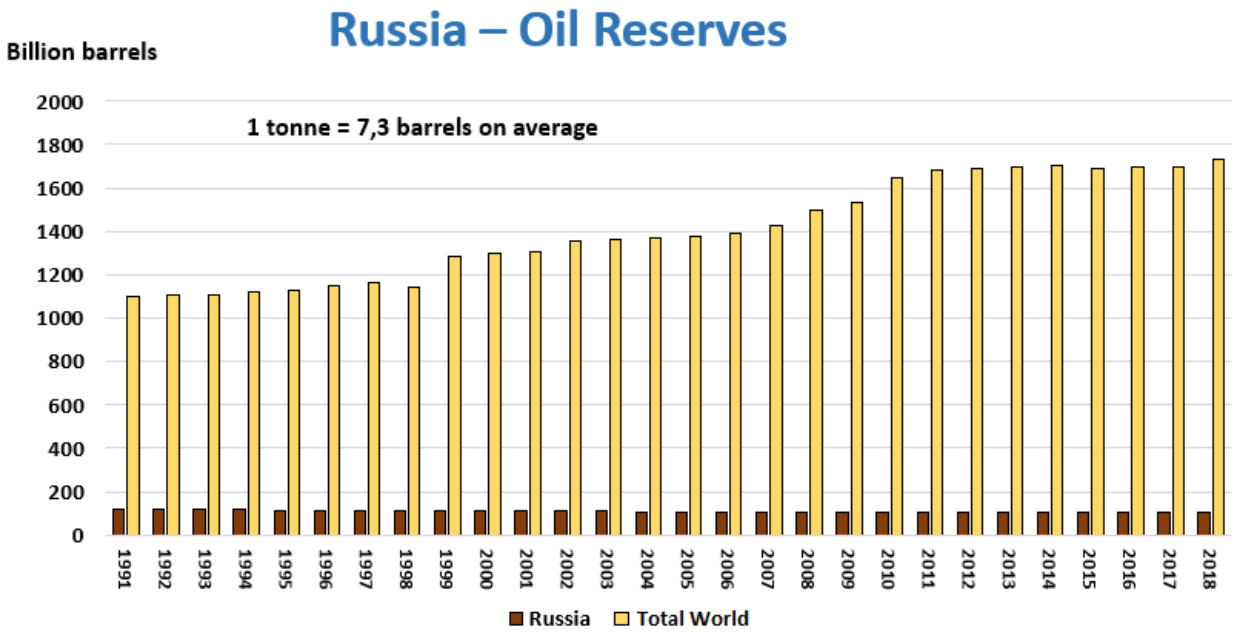

Figure 8: Russia- Oil Reserves

Source: BP statistical Review of World Energy, 2019

In 2018, the proved oil reserves of the Russian Federation stood at 106.2 billion barrels. Together with the other CIS countries, it represents the 6.1% of the world total, 1729.7 billion barrels (in 2018).

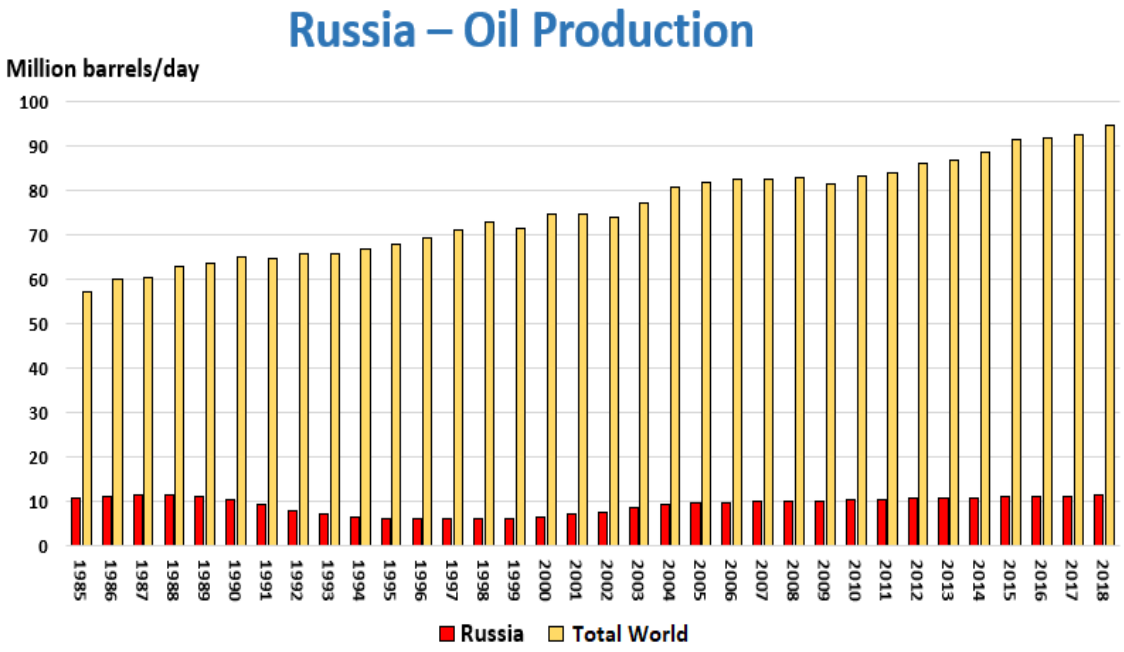

Figure 9: Russia-Oil Production

Source: Statistical Review of World Energy, 2019

The graph above shows that oil production in Russia has maintained quite stable between 1985 and 2017, with a growth rate of the 1.1% per annum in the period 2007-2017. In 2018, the oil production stood at 11.438 million barrels, which is significant in comparison to the world production of the same year, which stood at 94.718 million barrels.

Therefore, statistics confirm that the biggest export market for Russia is Europe, in particular Germany and Italy.

The role of Russia in the energy relations with the EU was enhanced by the presidency of Vladimir Putin and the rise in global energy prices in 2000s, when Russian exports became to be used as an important source of revenue but also as a mean to strengthen the relationship with several EU member states. Italy is an important example of this strategy. From the 2000s until the financial

crisis of 2008, Gazprom rode the wave of rising oil and natural gas prices, and growing demand for energy sources[27].

During this time Italy has expanded its bilateral agreements with Russia, favoured by the Russian political stabilization and the rapid growth of the Russian economy under the presidency of Putin, which attracted Italian investors. Moreover, at the time Putin developed personal relationships with the Italian Prime Minister Silvio Berlusconi, who supported an expansion of cooperation with Russia both in the European Union and NATO. He made the consolidation of good relationships between Russia and NATO one of his foreign policy objectives, promoting the inclusion of Russia into the NATO's security structures: in 2002, NATO and Russia established the NATO-Russia Council, a forum in which Russia and NATO could cooperate as equal partners on joint decisions and actions.

These bilateral relations were not altered even after Berlusconi's government was replaced by a cabinet of technocrats headed by Mario Monti in 2011. Despite having expressed critical views on Italy's bilateral relations with Russia and having favoured policies agreed upon at EU level, he did not alter the partnership between Rome and Moscow. During his visit to Russia in July 2012, Monti supported Eni's commitment to build the gas pipeline 'South Stream' in a joint venture with Gazprom, a project that encountered criticism at EU level and will be addressed in the third chapter of the dissertation[28].

Cooperation in the energy field between Italy and Russia, as in the rest of the EU, focuses primarily in trade in natural gas: because of the scarce use of coal and the political decision not to develop nuclear energy, Italy has moved towards the use of gas, and today Italy is the country that uses natural gas the most compared to the other European countries after Germany. Natural gas in fact is considered the most environmentally friendly choice among the fossil fuels by the EU countries, because it produces less polluting emissions compared to other fossil energy sources, and this choice is reflected on the dependency that the EU has developed on Russian gas[29].

The Russian politics of gas supply, from the 2000s, was characterized by Russian commercial power over the importing states, because the nature of gas markets and of the pipeline infrastructure gave to Gazprom a monopolistic position. At the same time, Russia became also dependent on the European market's revenues, and began to develop pipeline projects meant to avoid the dependency on Ukraine as a transit state.

[27] A. Grigas, *The New Geopolitics of Natural Gas*, (Cambridge: Harvard University Press, 2017), 96.
[28] M. Siddi, "Italy-Russia Relations: Energy, Politics and Other Business", December 2012, accessed July 3, 2019, https://www.researchgate.net/publication/303738148_Italy-Russia_relations_energy_politics_and_other_business.
[29] G. Di Napoli, A. Senatore, "La Questione Energetica e le Relazioni Russia-UE", Istituto di Cultura Russa M. Lermontov, November 2008, accessed July 2, 2019, http://www.mezzogiornoeuropa.it/admin/files_upl/081216051220%20ricercadef.pdf.

In terms of economics, in 2000 Italy was the second trading partner of the Russian Federation, and 30% of the trade between the two countries has took place with Eni.

The most significant project born from the cooperation between the two countries in the early 2000s is the Blue Stream project, which is the result of the Strategic Alliance Agreement between Eni and Gazprom in 1998.

To ratify the agreement, the Russian President Vladimir Putin met the CEO of Eni, Vittorio Mincato, on June 6, 2000 in Milan: their joint commitment in the Blue Stream project improved the solid collaboration between the Russian Federation and the Eni Group. During the visit of President Putin, the Italian banks declared their readiness to allocate $ 1.5 billion to investment projects in Russia.

The inauguration of the new Eni headquarters in Moscow in 2001 had a strong strategic significance for the relations of the Group with Russia. On the occasion, Vittorio Mincato, CEO of Eni, recalled the future joint commitments for the Blue Stream project and underlined the future Eni-Gazprom developments which have been discussed in Milan as the president Putin was visiting Italy.

According to the CEO of Eni, the new headquarters would have been the base for new joint activities outside the country. Viktor Chernomyrdin, who at the time was CEO of Gazprom, stated that cooperation with Eni would also bring important technical progress in Russia.

The ceremony was concluded by Carlo Azeglio Ciampi, the Italian President of the Republic, who expressed satisfaction regarding the relations with Russia in the energy sector, fundamental in the good relations between the two countries, recalling that Eni was the largest commercial partner of the Russian Federation with trade that by the time had increased to about 40% of the commercial balance of the two countries[30].

The Blue Stream project is the result of an inter-governmental agreement between Russia and Turkey and organized under a 1999 agreement between Gazprom and Eni to build the undersea section of the pipeline[31]. The project envisaged the connection of the Russian and Turkish coasts via an offshore route in the Black Sea, together with the building of a compressor station in the Dzhubga area of Russia. The scope work of the project was split into three main activities that were carried out simultaneously. The first concerns the 370 kilometers on-shore route through southern Russia from the Krasnodar region to the Russian shore of the Black Sea. This phase was financed and carried out by Gazprom. The second activity involved the construction of a compression station near the Russian coast, at Beregovaya and two sealines each 380 kilometers in length which run beneath the Black Sea to Samsun on the Turkish coast. The Blue Stream pipeline company B.V., an Eni-Gazprom 50-50 company established in 1999, financed and built

[30] L. Brunetti, "A New HQ in Moscow", ECOS, no.1 (2001), 34-39

[31] N.M. Victor and D.G. Victor, "Bypassing Ukraine: Exporting Russian Gas to Poland and Germany", 143

the Blue Stream transportation system. Eni played a key role in the project, since its subsidiary Saipem built the offshore part of the pipeline (at a maximum depth of 2,150 meters), compensating for Gazprom's lack of capacity in offshore technology: the innovative technology that was available in Saipem have made possible to select the best routing of the sealines and equipment to be employed. The crossing of the Black Sea was the most challenging part of the project because the two sealines enter the sea on the Russian side where the seabed profile, near Beregovaya, drops dramatically. Along their subsea route, the two pipelines descend a record depth of 2,150 meters before emerging on the Turkish coast at Samsun.

The third activity concerned the construction of the overland route inside Turkey, from Samsun to Ankara, with a single pipeline of 470 kilometres in length. This section was constructed and managed by a consortium led by the Russian company Stroytransgaz[32].

At the beginning, the project envisaged 8 bcm of gas per year flowing through the pipeline, with the expectation to double the capacity by the year 2010[33]. The project was completed in 2003. Today, the full capacity of the pipeline is of 16 bcm of gas annually.

In November 2006, during the last Prodi government, Eni and Gazprom signed a strategic agreement that set up a long-term alliance. Specifically, they agreed on extending sales of Russian gas to Italy until 2035 and identified new major joint projects[34].

Since 2007, Eni has been operating in Russia following the acquisition of assets of Russian companies which operate in the exploration and development of natural gas reserves. The companies, managed by the sub-holding SeverEnergia, own gas resources located in the Yamal Nenets region, the largest natural gas producing region in the world. On 15 January 2014, however, Eni sold its 60% equity stake to Novatek[35]. In the same year, Eni and Gazprom signed a memorandum of understanding to build South Stream, a project that will be addressed in the third chapter.

Eni's strategic plan for the period between 2012 and 2015 outlined co-operation with Russia for the production of gas in the Yamal region as one of the key elements of the company's growth strategy.

Overall, Eni and Gazprom have always kept very close business ties that have helped Eni to retain its role as the main intermediary for Russian gas in the Italian market, which resulted in the increase of their mutual dependency.

In May 2014 Eni and Gazprom signed new agreements which envisaged major concessions for Eni, as Gazprom agreed to make reference to spot-market gas prices in long-term contracts. As

[32] V. Mincato, "Blue Stream. The New Scenario", ECOS, no.3 (2001), 9-25.
[33] A. Ptashkin, "Vladimir Putin Meets Eni", 20-24.
[34] M. Siddi, "Italy-Russia Relations: Energy, Politics and Other Business."
[35] Eni, "Eni in Russia", accessed August 5, 2019, https://www.eni.com/en_RU/eni-russia/partners-projects/partners-projects.shtml.

will be displayed later, Gazprom has long resisted this change in the gas pricing mechanism in Europe. This change signalled both new pricing pressures in the changing global gas market and a sign of good relations with Eni[36].

In February 2016, Alexey Miller, Chairman of the Gazprom Management Committee, met Federica Guidi, the Italian Minister of Economic Development. The meeting addressed Russian gas exports to Italy. The parties discussed the status of bilateral gas cooperation and prospects for its development in light of the growing demand for Russian gas in the European market, due to the decline of domestic gas production in Europe[37]. The event was followed by a meeting in June 2016 between Alexey Miller CEO of Gazprom, and Claudio Descalzi, CEO of Eni, at the St. Petersburg International Economic Forum.

The parties underlined that the demand for Russian gas remained fairly high in Italy, highlighting that in 2015 Russian gas exports to the Italy increased by 12.6 %, and from January 1 through June 15 of that year, they grew by another 5.3 %. In the meeting, Alexey Miller and Claudio Descalzi addressed further development of the European gas transmission system, paying attention to the prospects of setting up a Southern route for Russian gas supplies to Europe[38].

On 21 March 2017 Eni and Gazprom signed a Memorandum of Understanding, which reflects the interest of both sides in analyzing the prospects for cooperation in developing the above-mentioned Southern corridor for gas supplies from Russia to Italy, along with other EU countries, as well as the modernization of the agreements between Russia and Italy concerning gas supply. Moreover, the Memorandum of Understanding envisages partnership options in the LNG sector, in addition to the other points[39].

The cooperation between the two countries in the energy sector does not only concern natural gas, but it expanded in the electricity sector, the oil sector, the petrolchemical sector and the manufacturing industry from the 2000s onwards.

For instance, the ENEL Group, Italy's largest operator in the electricity sector, entered the Russian market in 2004, as the first private operator in the power sector. It controls 56.4% of Ogk-5, a company with four power stations in Russia, and 49% of RusEnergoSbyt, an important electricity trader in Russia[40]. In addition, ENEL signed a memorandum of understanding with RosAtom, Russia's federal agency for nuclear energy, for the development of the electric and nuclear power

[36] A. Grigas, *The New Geopolitics of Natural Gas*, 123.
[37] Gazprom, "Italian Ministry of Economic Development and Eni Discuss Gas Deliveries to Italian Market", February 2016, http://www.gazprom.com/press/news/2016/february/article267669/.
[38] Gazprom, "Gazprom and Eni Discuss Potential Southern Route for Russian Gas Supplies to Europe", June 2016, http://www.gazprom.com/press/news/2016/june/article276815/.
[39] Eni, "Le Attività di Eni in Russia", accessed August 1, 2019, https://www.eni.com/enipedia/it_IT/presenza-internazionale/asia-oceania/le-attivita-di-eni-in-russia.page?lnkfrm=asknow.
[40] Enel, "Enel Group Finalizes the Sale of its Stake in Russian Severenergia to Rosneft", 2013, https://www.enel.com/media/press/d/2013/11/enel-group-finalizes-the-sale-of-its-stake-in-russian-severenergia-to-rosneft.

generation system in Russia and East-Central Europe, possibly including participation in the construction of a nuclear power plant in the Kaliningrad enclave. Together with Eni, ENEL also had shared ownership of SeverEnergia, but in 2013 sold its stake to Itera, a subsidiary of Rosneft[41]. Moreover, trade in energy sources does not concern only cooperation with Gazprom. It is true, however, that because Gazprom has a leading position in the Russian oil and gas market, the trade between Italy and Russia in the energy sector takes place mostly through Gazprom and Eni. But because of the rise of other energy companies in Russia, other than Gazprom, Italy has shown willingness to deepen cooperation with these actors.

Among the largest investors in Italy there is the company Lukoil, which started to operate in Italy since 2009. The company realized several projects in Italy, including the participation in the joint business company ERG on the management of the oil refinery ISAB in Sicily. The company Lukoil acquired a 49% stake of ISAB in 2008 for $1.35 billion and then acquired all the additional shares[42]. Long-term plans of the company include maintenance of a stable and efficient operation of petroleum products on the Italian market. It is also planned to develop cooperation with Eni and other Italian companies, such as SINT, Nuova Neon Bassano.

Also, in 2012 the company Rosneft has signed an agreement with the Italian company SORAS Spa to develop a strategy to establish a joint venture in the field of processing and marketing of petroleum products. Thus, Rosneft focused on gaining access to the European market through the distribution network of the Italian company. Back in 2011 Rosneft and Eni signed a strategic partnership memorandum to create joint ventures for the exploration and development of areas of the Black Sea and Barents Sea: Eni was responsible for funding the exploration and involving Rosneft in their projects in America and Europe[43].

Despite the development of the historical cooperation between the two countries in energy trade, there are crucial external factors limiting their partnership at a commercial level, responsible for eroding ties between Italy and Russia: the policies adopted by the European Union with reference to climate defense and diversification of the energy sources are the most prominent. Before addressing the two issues, it should be taken into consideration that changes in the relations between Eni and Gazprom have been already deeply influenced in negative terms by other several issues: the economic crisis that Europe experienced between 2008 and 2011, the changing structure of the global energy market and the new LNG projects which emerged globally, as well as the adoption of a new legislative framework in the EU concerning the energy market.

[41] M. Siddi, "Italy-Russia Relations: Energy, Politics and Other Business."
[42] Lukoil, "About Us", accessed August 3, 2019, http://isab.lukoil.com/it/About/History.
[43] R. Zaynutdinov, "Russia and Europe Under Sanctions: Problems of Energy Development", International Journal of Energy Economics and Policy, vol. 5(2), (2015): 415-421, https://dergipark.org.tr/download/article-file/361396.

First, the recession experienced by the European countries has weakened the demand for energy consumption and had contributed to the decline in prices of oil, natural gas and coal, which resulted in a decrease of sales for Gazprom.

At the same time, Europe has gradually shifted from oil linked pricing to hub-based pricing, and gas price indexation to oil prices in Europe have been drastically reduced. Linking of gas pricing to hubs has become the basis for the transactions being carried out. The reason of this change has to be found in oil being replaced by gas in the final use, which subsequently increases its demand and hence price, in the development of LNG and the supply surplus of natural gas (fig.10).

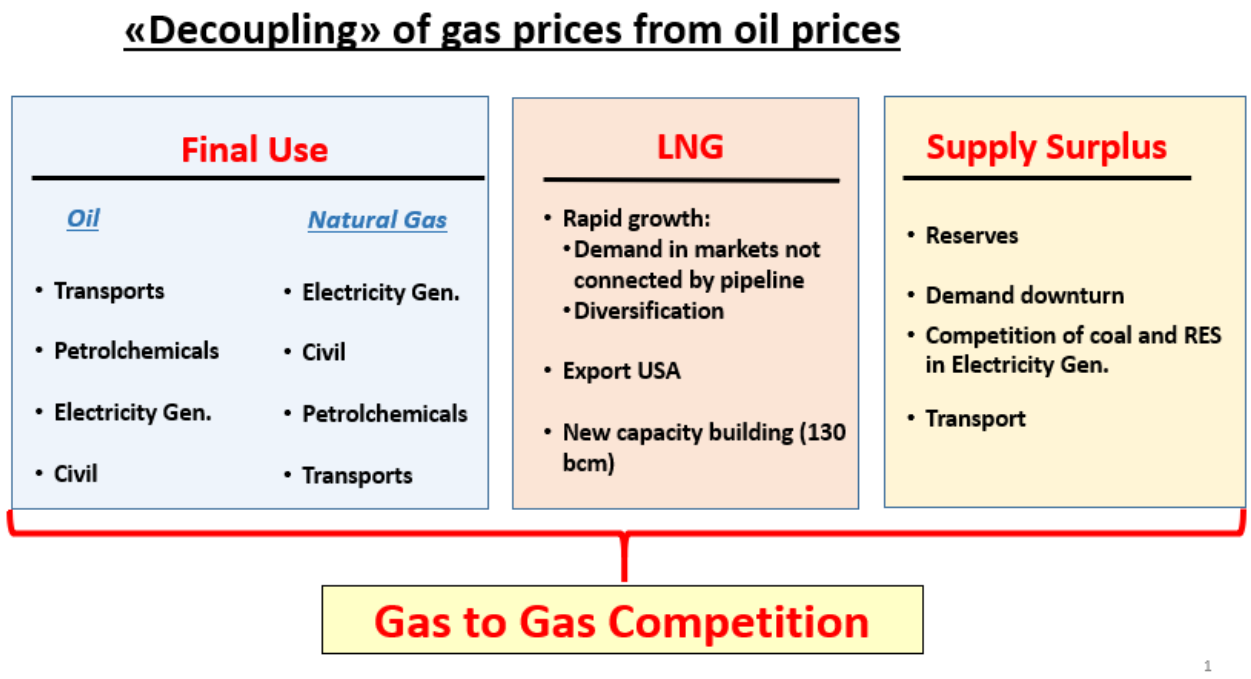

Figure 10: Decoupling of Gas Prices from Oil Prices

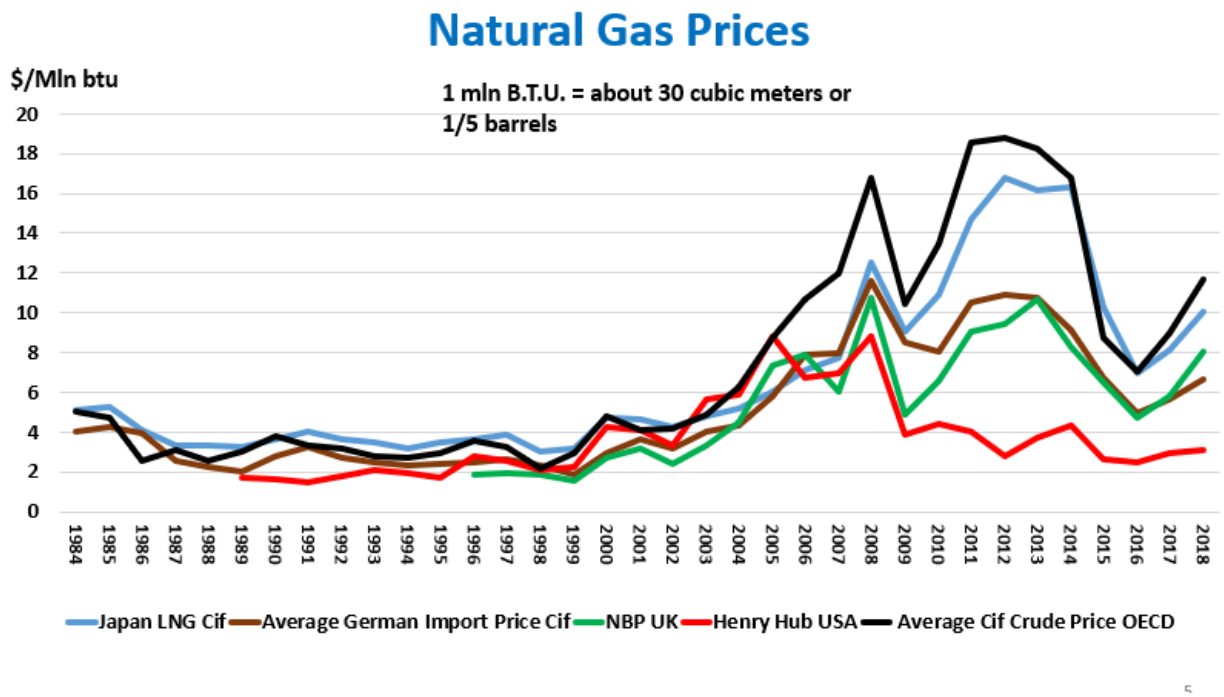

Figure 11: Natural Gas Prices

Source: BP Statistical Review of World Energy 2019

The graph above displays in detail the decoupling of the natural gas prices from the year 2008-2009 onwards. Previously, the prices of natural gas mostly coincided with the oil prices (fig.11). The supply surplus of natural gas is a result of the high disposal of abundant reserves, as well as the decrease of the European demand caused both by the economic recession and the interest in developing renewable sources for energy consumption.

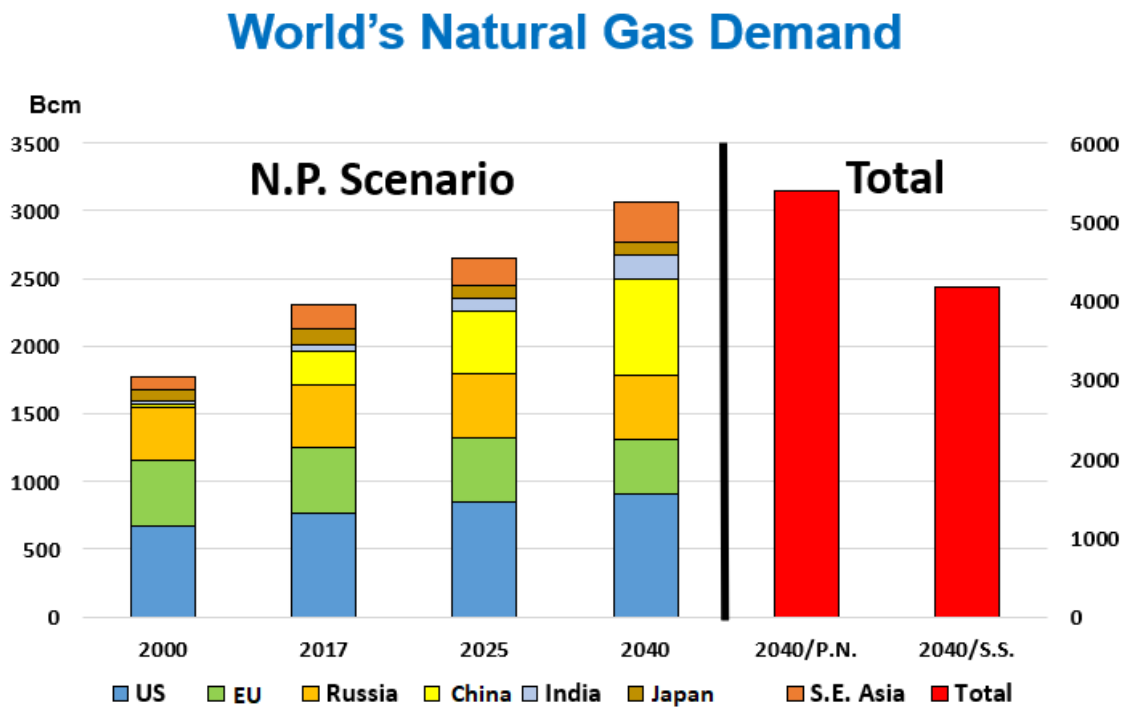

Figure 12: World's Natural Gas Demand

Source: International Energy Agency (IEA), World Energy Outlook 2018 (WEO 2018)

The changes in the global market are reflected in the graph above. With the new policies (N.P.) that have been adopted in 2018, but not yet implemented by the world's countries, the demand of natural gas is expected to be subjected to a gradual increase in different world areas, except in Europe, where by contrast will gradually decrease (fig.12).

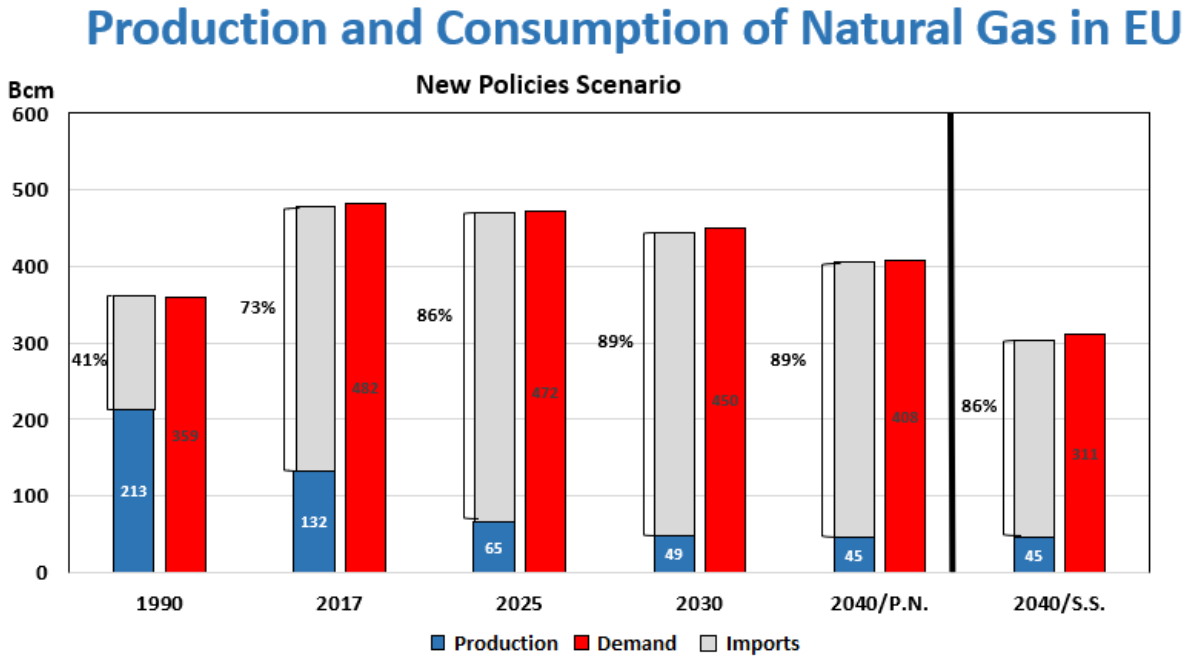

Figure 13: Production and Consumption of Natural gas in EU

Source: IEA, WEO 2018

This picture is confirmed by above graph, which shows the production and consumption of natural gas in the EU. By the year 2040, with the new policies scenario (N.P) there will be a visible reduction in the demand side. In the ideal scenario (S.S.), the demand will fall dramatically, along with the imports (fig.13).

As a result of these significant changes in the European market, Gazprom's traditional model of long-term contracts based on oil-linked prices has become difficult to bear for its customers.

For this reason, although Gazprom still formally follows this model, it has significantly reviewed its pricing policy. As previously mentioned, during the period 2009 –2014 nearly 60 gas supply contracts were reviewed with 40 clients, providing price discounts, easing of take-or-pay obligations and the introduction of a spot component, as shown by the experience with Eni[44]. This need for condition changes in contracts came mostly from the stagnation of economic growth in Europe, resulting from the economic crisis and the collapse in the oil price, which pushed European hub prices down. Therefore, in order to preserve the solvency of its customers, Gazprom has been forced to adjust its oil-linked contract prices through a variety of mechanisms to bring them in line with the gas price on European hubs.

Despite these changes on the side of Gazprom, the company has also shown that it is not yet completely willing to abandon its contract structures, and this tactic was deemed as a failure and abandoned in the spring of 2015, with the company having lost significant revenues in the process. It is therefore clear that Gazprom, maintaining these contract structure, struggles to adapt its position in Europe, because it has limited direct influence on the European hubs[45].

The other important challenge, which is likely changing this picture and undermining the presence of Gazprom in the Italian and European market, is the supply of LNG. The development of LNG is eroding the exportations' constraints and is overcoming the problem of regionalization. In particular, the LNG coming from the US is a direct source of competition towards Gazprom, as it provides gas under an alternative pricing formula. During 2015 the lower oil price has effectively brought Gazprom's oil-linked price in line with the European spot gas price and with the potential competition from the US. Cheaper US LNG is likely to leave oil-linked contracts in a difficult

[44] J. Henderson, T. Mitrova, "The Political and Commercial Dynamics of Russia's Gas Export Strategy", The Oxford Institute for Energy Studies, September 2015, accessed July 5, 2019, https://www.oxfordenergy.org/wpcms/wp-content/uploads/2015/09/NG-102.pdf?v=cd32106bcb6d.

[45] J Henderson, "Gazprom- Is 2016 the Year for a Change of Pricing Strategy in Europe?", The Oxford Institute for Energy Studies, January 2016, accessed July 6, 2019, https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/01/Gazprom-Is-2016-the-Year-for-a-Change-of-Pricing-Strategy-in-Europe.pdf.

position.

It is important to recall that the European interest in LNG is not meant as a strategy to undermine Russian gas exports. Europe is dependent on the changes of the global market. In particular, it is in the European interest promoting de-regionalization to connect the regions isolated from the European Energy markets, in order to promote the security of energy supply.
An evidence of this interest on the EU side is the development of Projects of Common Interest (PCI), for the interconnection of the energy systems of the EU countries. The Projects include financial support to build Priority Corridors to support the integration of the single market. The EU has already provided 100 billion euros to support the construction of 5 LNG terminals and for the laying of 10000 kilometres of pipelines.

On its side, Gazprom has argued that it would be prepared to compete with US LNG in Europe, and Russia has started to develop LNG export. Meanwhile, the prospect of US LNG becoming a reality has already successfully changed the strategy of Gazprom.
LNG coming from the US presents a clear threat to Gazprom's position in Europe, especially as gas from North America is being presented as a political solution to the EU's security of supply issues[46].

Given the low marginal cost of both Russian pipeline gas and US LNG the possibility of a price war in the European gas market is likely to happen, especially due to the potential oversupply of LNG in the period to the early 2020s.

The graph below shows that in the long-run, trade in natural gas via LNG is expected to increase at the expenses of pipeline trade. Up to the year 2040, exports in LNG are expected to more than double (fig.14).

[46] J. Henderson, T. Mitrova, "The Political and Commercial Dynamics of Russia's Gas Export Strategy."

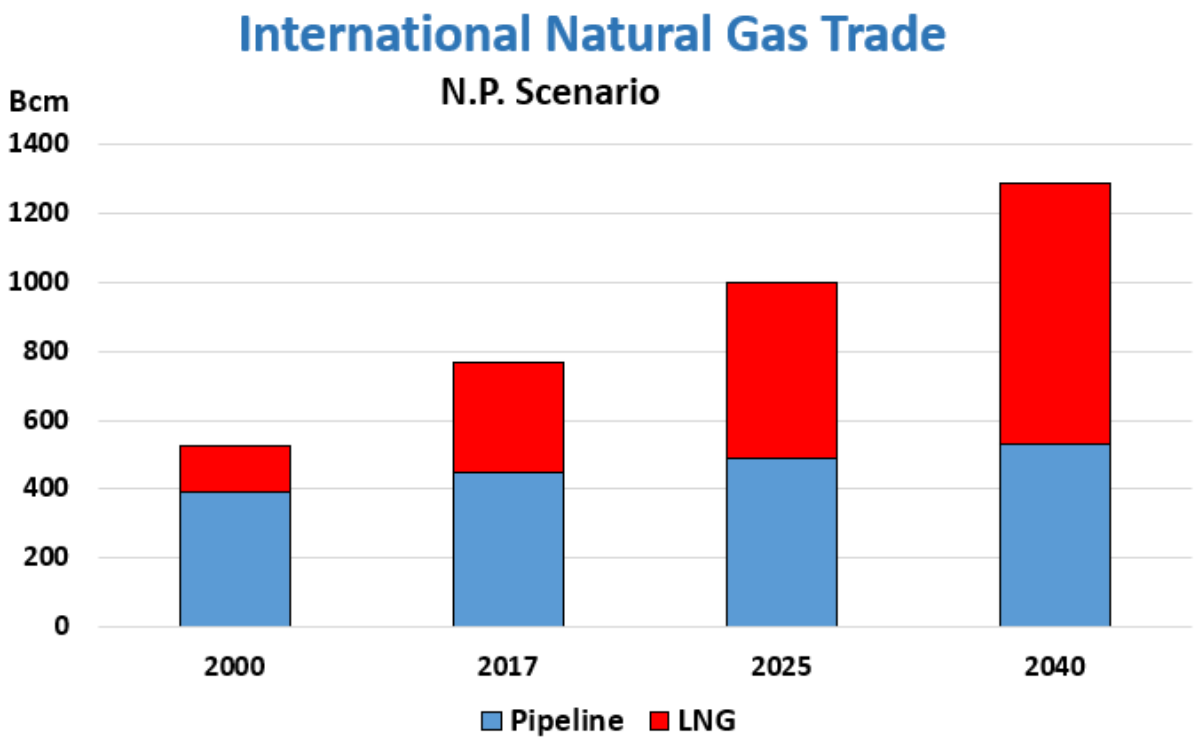

Figure 14: International Natural Gas Trade (New Policies Scenario)

Source: IEA, WEO 2018

Another factor undermining the presence of Russian gas in Europe is the recent impact of the European legislation concerning the functioning of the internal energy market.

The "Third Energy Package" (TEP), consisting of two directives and three Regulations, was aimed at creating a single EU gas and electricity market by introducing effective and properly regulated competition[47].

An internal market for gas was meant to enhance security of supply for individual member states and foster greater convergence of member state preferences in respect to energy relations with Russia.

The TEP legislation was also aimed at introducing liberalization in the European market, calling for important principles, namely:

-Effective unbundling of the energy production, meaning the separation of energy supply and generation from the operation of transmission networks;

[47] The European Commission, "Questions and Answers on the Third Legislative Package for an Internal EU Gas and Electricity Market", 2 March 2011, accessed August 20, 2019, http://europa.eu/rapid/press-release_MEMO-11-125_en.htm?locale=en.

-Independent regulators, meaning the establishment of regulators who ensure the application of the rules;
-Establishment of ACER, Agency for the Cooperation of Energy Regulators, meaning the creation of an agency that ensures the functioning of the internal energy market and coordinates the different national regulators.

The TEP had a huge impact on the relationship between the EU and Gazprom, especially in respect to the clause of the ownership unbundling, as will be addressed in the third chapter.
The EU countries themselves were subjected to some changes, including Italy.
On the Italian side, as pointed out by M. Skalamera (2015), both the economic recession experienced in Europe and the EU legislation have led the Italian government to revise its energy foreign policy, decoupling it from Eni, which has started to adopt a corporate strategy more in line with commercial priorities since its privatization, aligning it with the needs of the EU. The Italian Government has supported the European Commission's liberalisation policies and its aspirations to create a common internal gas market, and Italy almost completely complied with the provisions of the third European Directive (2009/73/EC) regarding common rules for the internal natural gas market.
According to her, in Italy the efforts of liberalisation have not been sufficient to introduce effective competition, due to Eni's prime influence on the main energy decisions affecting national gas security, which has always relied on maintaining cooperation with Russia and Gazprom. This "has led the strategies of the Italian Governments to be linked to the interests of Eni, which replaced the government in energy planning. The choice to rely on highly concentrated energy supplies from mostly non-European gas suppliers is the result of Eni's corporate preferences. Such choices put Italy among the countries with the lowest intra-European energy imports" (Skalamera, 2015)[48].
However, it is to be pointed out that the decision to rely on Russian gas was a strategy envisaged by both Eni and the Italian Government, dependent on the impossibility for Italy to import energy sources from other European countries: the Netherlands, because of its policy of containment of the energy exports in favour of the new generations, and from Norway, because of the fact that the exports from this country took place from the beginning of the 1990s.
Apart from what has been discussed above, the strongest arguments that will undermine the presence of Russian gas in the EU, and subsequently in Italy, are based on the issues of climate defense and energy security.

[48] M.Skalamera, "Italy's Path to Gas Liberalization. Corporate Power, Monopoly, Distortions and the Russia Factor."

As to the first case, the interest in developing renewable energy sources has already contributed to the decline of the European gas demand.

The EU has committed itself to strengthen environmental protection and to minimize the risks derived from climate change, under the UN convention. The EU countries are required to report the UN on their policies on climate change, greenhouse gas emissions and their progress to meet the targets set by the EU.

Members of the European Union have issued the "Climate and Energy Package", a set of binding legislation to ensure that the EU meets its climate and energy targets for year 2020. The package sets three key targets, which were set by EU leaders in 2007 and directed in legislation in 2009:

-20% cut in greenhouse emissions (vis-a-vis 1990 levels)
-20% of EU energy consumption from renewables
-20% reduction of the energy consumption through the improvement in energy efficiency.

These targets should be beneficial to Europe in two ways: to improve the energy security of the EU, meaning reducing its dependency on imported energy and contributing to achieving a European Energy Union, and to make the European Union more competitive and to advance on the green growth path.

This document has been followed by the "2030 Climate and Energy Framework", adopted by the European Council in October 2014 and finally approved at the end of 2018. The document includes EU-wide objectives for the period from 2021 to 2030, namely:

-At least 40% cuts in greenhouse gas emissions as a binding target (vis-a-vis 1990 levels)
-At least 32% share for renewable energy
-At least 32.5% reduction of energy consumption the improvement in energy efficiency.

Moreover, according to this document, Member States are obliged to adopt integrated "National Climate and Energy Plans" (NECPs) for the period 2021-2030[49].

The next important step for the European Union's goals of building a secure and environmentally friendly energy market was the adoption of the "Energy Union Strategy" of the European Union in 2015: the main targets of the strategy are boosting energy security, creating a fully integrated internal energy market, improving energy efficiency, decarbonising the economy by using more renewable energy and supporting research, innovation and competitiveness. The "Clean Energy

[49] The European Commission, "2030 Climate and Energy Framework", accessed July16, 2019, https://ec.europa.eu/clima/policies/strategies/2030_en.

for All Europeans" package, consisting of eight legislative acts, marks a significant step towards the implementation of the Energy Union strategy.

The "2050 Long Term Strategy", issued on 28 November 2018 by the European Commission, represents an additional step forward. The strategy calls for a competitive and climate-neutral economy in Europe by 2050, in line with the Paris' Agreement objective to keep the global temperate increase below 2° and put efforts to maintain it below 1.5°[50].

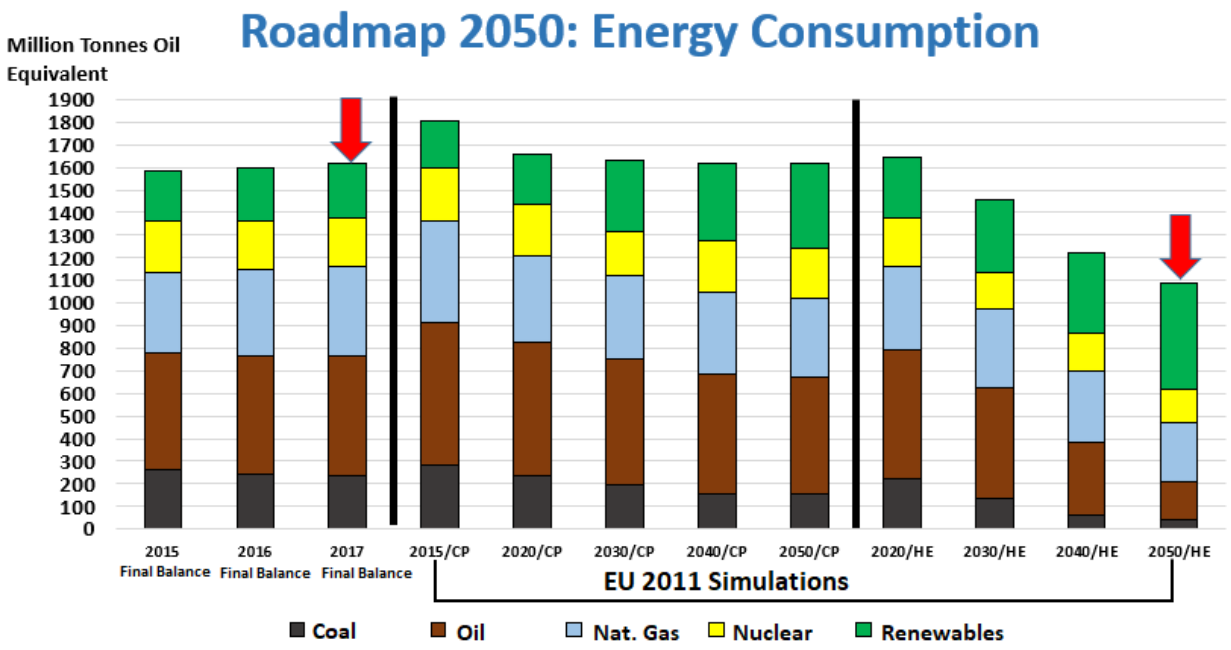

Figure 15: Roadmap 2050: Energy Consumption in EU

Source: EU 2011 Simulations

The graph above (fig. 15) shows the energy consumption from 2015 to 2017, as well as two possible scenarios up to the period 2050. The EU simulations of 2011 indicate that in conditions of high energy efficiency (HE), there could be a significant reduction in terms of energy consumption by the year 2050, with a great share of energy consumption coming from renewable sources. Even in the condition in which the EU will continue to follow the current policies (CP), the share in renewable sources is expected to grow over time.

To meet the EU goals, Italy showed substantial commitment on developing a sustainable energy sector, and in 2017 (and 2018) issued a new national energy strategy with a focus on a number of objectives: reducing final energy consumption by a total of 10 Mtoe by 2030, reaching a 28% share of renewables in total energy consumption by 2030, and a 55% share of renewables in electricity generation by 2030, strengthening supply security, narrowing the energy price gap, furthering

[50] The European Commission, "2050 Long-Term Strategy", accessed July 16, 2019, https://ec.europa.eu/clima/policies/strategies/2050_en.

sustainable public mobility and eco-friendly fuels, phasing out the use of coal in electricity generation by 2025[51].

As to the issue of energy security, the European Union considers security of energy supply an integral part of the Energy Union strategy, and aims at identifying and building new routes that reduce the dependency of EU countries on a single supplier of natural gas and other energy resources. Energy supplies are exposed to risks that include disruption from countries from which the EU imports energy resources, and in this respect the EU aims at making the European energy system stronger, increase cooperation and solidarity by speaking with one voice internationally when dealing with supplier countries. A key part of ensuring secure and affordable supplies of energy to Europeans involves diversifying sources and supply routes to prevent supply disruptions[52].

The gas crisis in Ukraine in 2009 has contributed to highlight the importance of the role of Russia as a trading partner for Europe and the dangers of the supply disruption for the EU countries, including Italy: Russia provides a quarter of the EU gas supply, of which 60% passes through Ukraine, which is still the main transit route for Russian gas to Europe. The crisis outlined that some EU countries have been severely affected by it. During the crisis, Paolo Scaroni, CEO of Eni, commented on the possibility that Italy would be affected by the events in Ukraine, and pointed out the importance for the EU to re-think its energy strategy in light of the crisis[53].

Energy security was regarded as one of the priorities of the Juncker Commission: a new portfolio on Energy Union has been created with the aim of seeking alternatives to eastern sources of gas, following the Ukrainian-Russian crisis in Crimea in 2014. The Council in particular focused on promoting efforts to reduce Europe's dependency on Russian gas.

However, to show the leverage that Russian gas has towards Europe, it should be taken into account that the round of sanctions imposed on Russia by the EU in 2014 affected the oil industry but not the gas sector: EU services to the Russian oil industry and to its access to credit were the targets.

The decision was based on strategic interests, since oil can easily be found on the international market and is simple to transport and store, which gives the possibility to both Russia and the EU to find alternative partners. Gas, on the other hand, is mainly traded via extensive pipelines, the cost of which is generally offset by long-term contracts. Pipelines may be subject to local

[51] The Italian Ministry of Economic Development, "Italy's National Energy Strategy 2017", accessed July 17, 2019, https://www.mise.gov.it/images/stories/documenti/BROCHURE_ENG_SEN.PDF.

[52] The European Commission, "Energy Security- Overview", 2014, accessed July 18, 2019, https://ec.europa.eu/energy/en/topics/energy-security/overview.

[53] F. Manacorda, "Gas, Per Ora niente Rischi", La Stampa, March 2014, https://www.lastampa.it/topnews/economia-finanza/2014/03/08/news/gas-per-ora-niente-rischi-1.35774942.

instability when they cross sovereign countries, as shown by the Ukrainian gas crises of 2006 and 2009, when Russian gas flowing through Ukraine to south-western Europe was cut off[54].

The existing alternative routes, via Belarus (Yamal pipeline) or via the Baltic Sea (Nord Stream pipeline) do not ensure enough capacity to fully replace gas transit flows through Ukraine[55]. Also, these pipelines are very unlikely to be operating at full capacity by the end of 2019, when the current transit contract between Gazprom and Naftogaz expires. Failure to reach an agreement would likely result in supply disruptions and damage the gas industry[56].

The events led Russia to rethink about its export strategy, but despite a bigger focus on the Asian market, Europe is still the biggest export direction for Russian gas[57].

In March 2014, in terms of European energy policy, Scaroni commented that "Europe is too dependent on Russian gas to stop imports in the short term, although I believe that Italy could get by"[58].

The above-mentioned turn of the European policies towards green growth is reflected in the Italian draft integrated National Energy and Climate Plan (NECP), which builds on the 2017 Italian Energy Strategy, and it is intended to implement a vision of broad economic transformation, in which decarbonisation, energy efficiency and renewables' priorities contribute to meet the objective of a more environmentally friendly economy. As regards energy security, Italy is planning to reduce import dependency via the increase of renewable sources and energy efficiency efforts. The further diversification of sources of supply and the promotion of a more secure, flexible and resilient gas sector are other important objectives[59].

The Russian Federation, on its side, to a great extent bases its economy on the export of natural resources of which is abundant of, and the worth of natural resources makes up about 60% of the GDP of the country. Therefore, it has little interest in this sense to develop renewable sources: despite significant progress in the use of these sources and interest in reducing emissions, lags behind the European Union.

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[54] P. De Micco, "A Cold Winter to Come? The EU Seeks Alternatives to Russian Gas", Directorate-General for External Policies, The European Parliament, October 2014, accessed July 20, 2019, http://www.europarl.europa.eu/RegData/etudes/STUD/2014/536413/EXPO_STU(2014)536413_EN.pdf.

[55] M. C. Bowmeester, J. Oosterhaven, Economic Impacts of Natural Gas Flow Disruptions between Russia and EU, Energy Policy, vol. 106 (2017): 288-297, https://www.sciencedirect.com/science/article/pii/S030142151730174X

[56] S. Pirani, "Russian Gas Transit through Ukraine after 2019: the Options", The Oxford Institute for Energy Studies, November 2018, accessed July 22, 2019, https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/11/Russian-gas-transit-through-Ukraine-after-2019-Insight-41.pdf.

[57] Istiuto Affari Internazionali, *The Future of Natural Gas. Markets and Geopolitics*, (Hof van Twente, NL: Lenthe/European Energy Review, 2016), 174.

[58] Ministero degli Affari Esteri e della Cooperazione Internazionale- News and Press Releases, "Russia: Ukraine Crisis Strengthens Eni's Hand", March 2014, https://www.esteri.it/mae/en/sala_stampa/archivionotizie/approfondimenti/2014/03/20140324_dei_cina.html.

[59] The European Commission, "Italy's National Energy and Climate Plan", 2019, accessed July 30, 2019, https://ec.europa.eu/energy/sites/ener/files/documents/necp_factsheet_it_final.pdf.

The structure of its the energy sector marks this difference: Russian total primary energy supply consists mainly of fossil fuels: the share of gas in total primary energy supply is one of the highest in the world, while hydropower and renewable sources in 2008 accounted respectively for the 2% and 1% of the total primary energy supply. The country's electricity generation mix is also dominated by fossil fuels, which in 2008 accounted for more than two-thirds of total generation, compared with hydropower and nuclear power, which accounted for approximately 16% each. The share of non-hydro renewable energy sources in the electricity generation mix was less than 1%[60].

Despite this picture, the potential for the development of renewable sources is huge in Russia.

Because of this potential, in 2009 the Russian Government passed the Resolution N. 1-r "On the Main Areas of Government Policy to raise the Energy Efficiency of Electric Power from Renewable Energy Sources for the period to 2020". The resolution has set a target of 4.5% of all electricity produced and consumed in 2020 coming from renewable energy sources.

The resolution however does not explicitly state that the outlined targets are mandatory, nor it does mention a precise framework for reaching these goals, which makes them difficult to achieve.

However, the development of renewable sources in Russia is first and foremost hindered by the abundant supply of fossil fuels resources, and by the fact that with the current energy market structure and pricing policies renewable sources are more expensive than the traditional ones[61].

The Russian Federation has recently issued a number of documents on energy strategy, in which targets for the development of the energy sector were outlined.

"The Energy Strategy of the Russian Federation for the Period up to 2030" aims at creating an innovative and efficient energy sector that would correspond to the growing economy's demand for energy sources and the foreign economic interest of Russia but notes that energy exports will continue to be one of the most important factors for the economic development of Russia.

The draft of the "Energy Strategy for the Period up to 2035" focuses on the transition from traditional energy resources to innovative resources of fuel and energy mix based on full use of domestic resources and innovative capabilities. The aim of the energy strategy for the period up to 2035 is the creation of an innovative and efficient energy sector for sustainable economic growth[62].

However, the document mentions renewable energy in passing.

In 2013, the Government passed the Decree N. 449 "On the Mechanism for the Promotion of Renewable Energy on the Wholesale Electricity Market, according to which renewable power

[60] International Finance Corporation, "Renewable Energy Policy in Russia: Waking the Green Giant", 2011, accessed July 15, 2019, https://di.dk/SiteCollectionDocuments/English/RuDanEnergo/Reports/Russia%20-%20waking%20the%20green%20giant.pdf.

[61] Ibid.

[62] The Ministry of Energy of the Russian Federation, "Energy Strategy for the Period up to 2035", 2014, accessed July 16, 2019, https://policy.asiapacificenergy.org/sites/default/files/Energy%20Strategy%20of%20the%20Russian%20Federation%20until%202035.pdf.

project receive capacity payments for a period up to 15 years for maintaining readiness to generate electricity on demand[63].

But despite the significant progress made in this direction, the consumption and production of renewable sources is not high.

As shown in the graph below, in 2018 the renewables consumption in the Russian Federation stood at 0.3 Mtoe, with a growth rate of 8.8% in the period between 2007 and 2017.

This is not very high in comparison to the renewables' consumption in the EU as a whole, which stood at 172.2 Mtoe, while just in Italy 14.9 Mtoe, and in the world 561.3 Mtoe (fig.16).

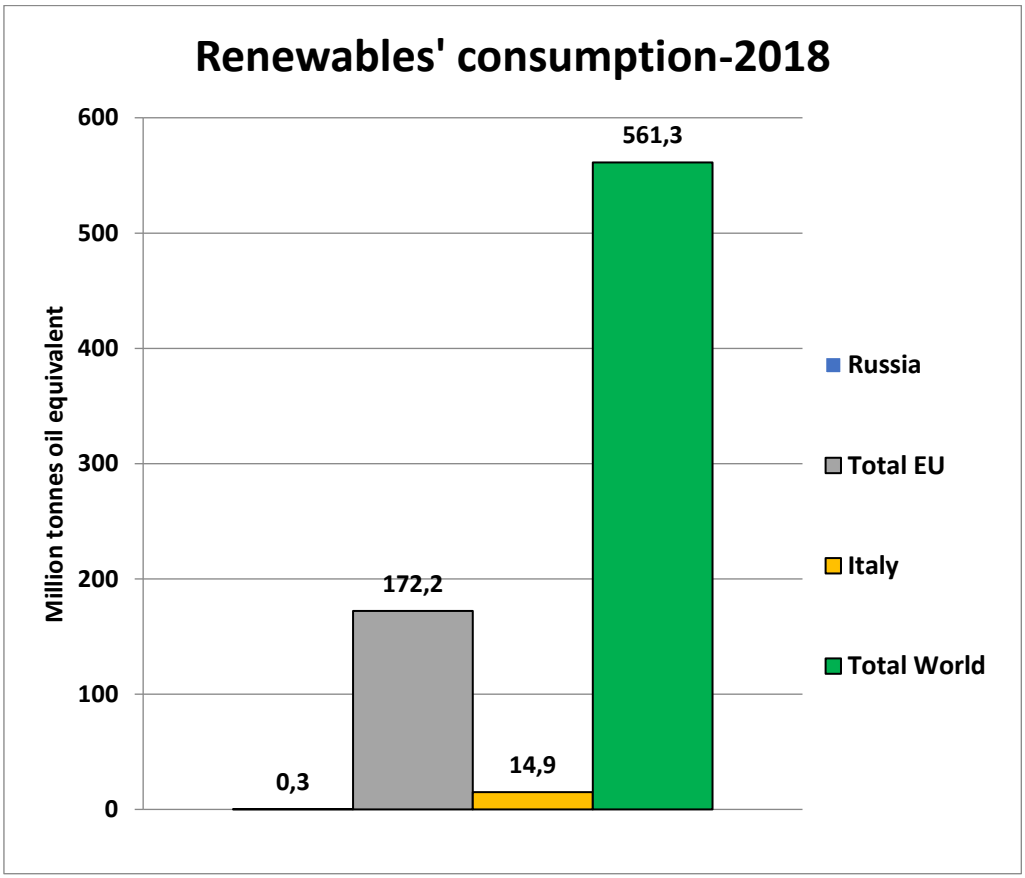

Figure 16: Renewable Energy: Renewables' Consumption 2018

Source: BP Statistical Review of World Energy, 2019

The second table below shows that renewable energy generation of the Russian Federation stood in total at 1.3 Terawatt-hours in 2018, with a growth rate of 10.5% in total in the same year. Again,

[63] Irena, "Russia", accessed September 1, 2019, http://resourceirena.irena.org/gateway/countrySearch/?countryCode=RUS.

this is not very high both in comparison to the EU, where it stood at 761.1 (in Italy at 66.0), and to the renewable energy generation in the world, which stood at 2480.4 (fig.17).

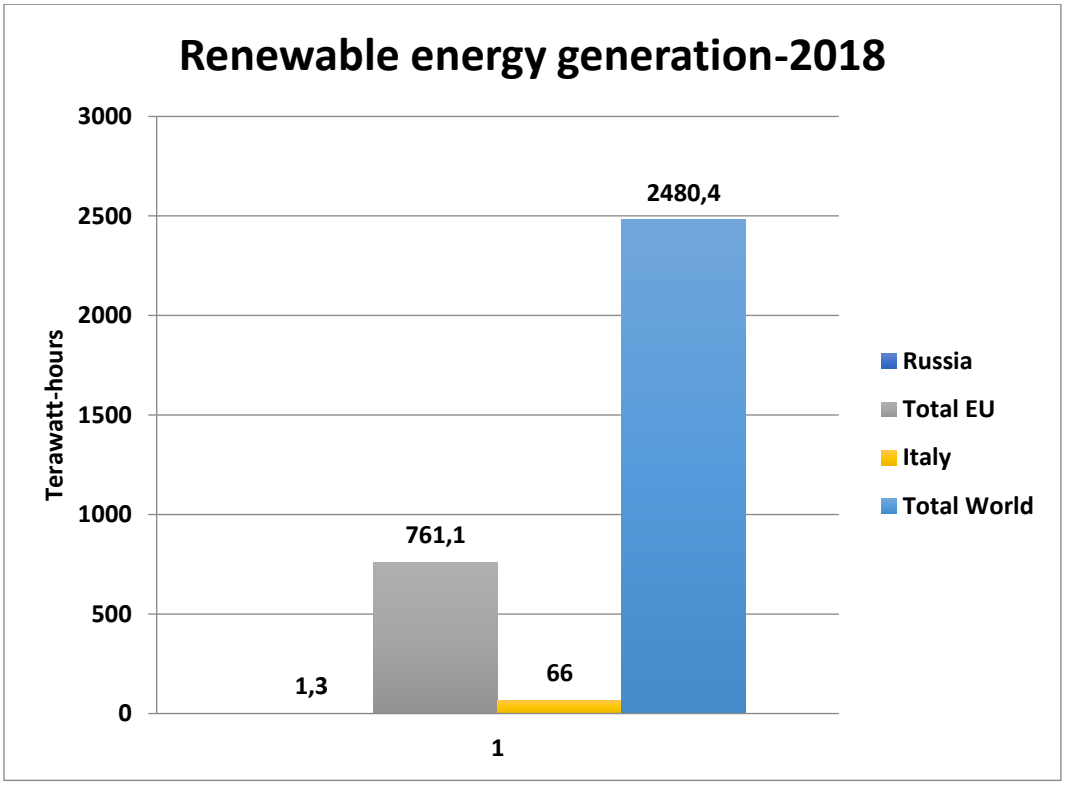

Figure 17: Renewable Energy Generation 2018
Source: BP Statistical Review of World Energy, 2019

Because of the different perspectives in terms of use of renewable sources, decarbonization and emissions reductions, it is difficult to predict if the cooperation between Russia and Italy in energy trade will increase. Most likely, because of the new energy strategy adopted by the European Union, Italy will reduce its dependency on the supply of energy sources from Russia in the long-term.

CHAPTER 3

The South Stream Problem

The South Stream project was launched in 2006 by Russia, after dispute with Ukraine on the matter of gas transit across the state and represents the major joint project in which both Italy and Russia were involved.

The idea behind the project was to supply Russian gas across the Black Sea to Europe, by building the largest European gas infrastructure project aimed at bypassing Ukraine as a transit state.

The project was designed to expand the principle of transit diversification capacity, put in place by President Putin soon after the Ukrainian gas crisis. The principle responded to the idea that the European gas demand might expand to the point where additional Russian supply would be required[64].

Leonid Chugunov, Head of the Project Management Department of Gazprom in his interview to the corporate Gazprom Magazine (2010), commented on the project by stating: "Four strings will run from the Russian coast – the respective corridors are still to be chosen. The only thing I can say is that they will not run across Ukraine's exclusive economic zone. The South Stream landfall in Europe may be located either in Bulgaria – this route is currently considered as the basic one –or in Romania. At the moment, potential crossing of this country's coastal line by one or two gas pipeline strings is being worked out"[65].

The South Stream project was officially announced for the first time on June 23, 2007: on this occasion, Eni CEO Paolo Scaroni and Gazprom Vice-President Alexander Medvedev signed a Memorandum of Understanding in Rome. Subsequently, on November 22, 2007, Gazprom and Eni signed another agreement in Moscow, in order to establish a joint project company for the realization of the project. The joint venture South Stream AG was registered in Switzerland in January 2008. Later on, on September 16, 2011, a shareholders' agreement was signed among Gazprom, Eni, EDF and Wintershall: this resulted in Gazprom having 50% of the capital of the project, Eni 20%, Wintershall and EDF 15% each.

According to the project finance plan, 30% of financing would have been paid by shareholders, with the rest funded through credit financing[66].

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[64] J. Stern, S. Pirani, K. Yafimava, "Does the Cancellation of South Stream Signal a Fundamental Reorientation of Russian Gas Export Policy?", The Oxford Institute for Energy Studies, January 2015, accessed August 12, 2019, https://www.oxfordenergy.org/wpcms/wp-content/uploads/2015/01/Does-cancellation-of-South-Stream-signal-a-fundamental-reorientation-of-Russian-gas-export-policy-GPC-5.pdf.

[65] Gazprom, "South Stream is Estimated to Cost EUR 15.5 billion", November 2010, http://www.gazprom.com/press/news/2010/november/article106074/.

[66] A. Turksen, "The Geoeconomics of the South Stream Pipeline Project", Journal of International Affairs, Columbia SIPA, January 1, 2016, accessed August 1, 2019, https://jia.sipa.columbia.edu/geoeconomics-south-stream-pipeline-project

From 2008-10, Russia signed intergovernmental agreements with several European countries for the onshore sections of the project. However, the routes of the two onshore pipelines changed over time as the project met increasing national and EU regulatory challenges.

In early 2012, the South Stream project outline was agreed to be a 900 km-long offshore pipeline across the Black Sea, composed of four strings with a joined capacity of 63 bcm per year. In the same year, the designed offshore route was finally displayed: from Anapa along the Russian Black Sea coast to Varna in Bulgaria. In December 2012, Gazprom and the other partners announced the final investment decision in order to start the construction of the first South Stream's string, with a capacity of 15.5 bcm per year, supporting the idea of completing the other three strings by 2020[67].

The project plan was ultimately clarified in 2014, and it consisted of two stages: the first stage envisaged the construction of a gas trunkline under the Black Sea, while the second one envisaged a new pipeline grid in Southern and Central Europe.

The Russian onshore section would have run from the Pochinki compressor station to the Russkaya compressor station near Anapa.

The South Stream Offshore Pipeline was planned to originate on the Russian shore near Anapa, cross the Turkish Exclusive Economic Zone of the Black Sea and land on the Bulgarian coast near Varna. The route through the Black Sea was meant to be 931 kilometres long and reach a maximum depth of up to 2,200 metres.

Four pipeline strings had to be constructed, each with a diameter of 81 centimetres and an annual transport capacity of 15.75 bcm. When fully operational, the South Stream Offshore Pipeline would have enabled the export of 63 bcm of natural gas per year, equivalent to the energy needs of 38 million European households.

Each pipeline string had to be made of over 75,000 individual steel pipes with a diameter of 81 centimetres weighing around 9 tonnes. The wall of the pipeline would have been made up of almost 4 centimetres of steel, which required to be specially heat-treated during the production phase to achieve extra strength.

In the first quarter of 2014, South Stream Transport signed contracts worth 1.8 billion euros for the supply of pipes for Line 1 and Line 2. The pipes would have been transported directly from the pipe mills to dedicated storage yards at the harbours of Burgas and Varna, on the Bulgarian coast. From here, they had to be shipped to the offshore construction vessels to be laid at the bottom of the Black Sea[68].

[67] S. Tagliapietra, M. Hafner, "Turkish Stream: What Strategy for Europe?", FEEM, 2015, accessed August 13, 2019, https://www.feem.it/en/publications/feem-working-papers-note-di-lavoro-series/turkish-stream-what-strategy-for-europe/.

[68] South Stream Transport B. V., "White Paper", 2014, accessed August 14, 2019, https://www.south-stream-transport.com/media/documents/pdf/en/2013/05/ssttbv_white-paper-south-stream-offshore-pipeline_52_en_20130502.pdf.

The total cost of the South Stream was estimated at around $40 billion in mid-2014, including $17 billion for the Russian Southern Corridor, $14 billion for the offshore section (according to Baev $8.5 billion, according to the 2011 South Stream's project plan $10 billion) and $ 9.5 billion for the onshore European sections[69].

Meanwhile, on 14 March 2014, Saipem was awarded a contract of 2 billion euros by South Stream Transport B.V. to prepare project documentation and lay the first offshore section of the pipeline from Russia to Bulgaria, as well as a number of onshore processing facilities.

Soon after, however, the South Stream project collapsed due to the decisions of the European Union in terms of compliance with the EU regulation[70].

Figure 18: The South Stream Routes

Source: Gazprom

In fact, in June 2014, the European Commission demanded Bulgaria to halt he construction of the pipelines, until allegations of corruption related to the construction firms hired to complete the project were resolved.

[69] J. Stern, S. Pirani, K. Yafimava, "Does the Cancellation of South Stream Signal a Fundamental Reorientation of Russian Gas Export Policy?"

[70] Warsaw Institute, "Italians with Gazprom again", 2017, https://warsawinstitute.org/italians-with-gazprom-again/.

In July 2014, Italian and Russian foreign ministers reaffirmed their commitment to the South Stream project, but in the same month the European Parliament passed a resolution calling on member states to cancel planned energy sector agreements with Russia, including the South Stream[71].

On December 1, 2014, following a meeting between the Russian and Turkish presidents, president Putin and CEO of Gazprom Alexey Miller officially announced the cancellation of the project. The reasons behind its demise, according to the Russian side, were the failure of the Bulgarian government to provide assurances that the pipelines could be laid and the failure of the European Commission to provide assurances that gas would be allowed to flow through those pipelines. A press release from the European Commission commented the "unofficial nature of this announcement, inviting the Vice-President for Energy Union to clarify the situation with the Russian side" (Stern, Pirani, Yafimava 2015).

The statement was received with some confusion even by the European partners: Saipem, at that time a subsidiary of the Italian energy company Eni, noted that it had not received any formal notification for the cancellation of the project.

Within a month from the announcement of the cancellation of the project, Gazprom bought the 50% of South Stream Transport (the offshore pipeline company) owned by the European partners. The South Stream's demise could be interpreted as a case-study for showing how the evolving nature of the EU regulations poses challenges to the activities of Gazprom in Europe.

The main reason for the demise of South Stream is in fact the TEP: as stated in the Second Chapter, the TEP is a set of directives aimed at liberalizing the energy market and reducing its dependency on supplies from Russia. In December 2013, the European Commission stated that the South Stream project breached the TEP rules, and consequently South Stream could not operate before reaching an alignment with the EU regulation. In detail, the TEP envisages two important clauses: the first, "ownership unbundling", does not allow the supplier to own the pipeline, while the second, the "third-access" clause, establishes an obligation for the supplier to give competitors access to the pipeline. The TEP envisages specifically "third party access to pipeline capacity based on published tariffs approved by national regulatory authorities (NRAs) as well as unbundling of transmission assets and certification of transmission system operators (TSOs) – unless an exemption from these rules is granted by an NRA and approved by the European Commission" (Stern, Pirani, Yafimava 2015).

The introduction of the TEP created major challenges for Russian gas exports to EU countries in respect to their compliance with the changing regulatory environment.

[71] A. Turksen, "The Geoeconomics of the South Stream Pipeline Project."

It is worth mentioning that art. 36 of the TEP allows new infrastructure projects to obtain the exemption from the provisions of the TEP itself if certain conditions are met. At the time of the project announcement, Gazprom stated that its cost-effectiveness to a large extent depended on the exemption from the third-party access principle, expressed in the TEP, and which is still mandatory in the EU. The argued exemption would have provided the gas pipeline owner with the right to use its full capacity over an extended period of time. By this principle, South Stream representatives would have approached regulators in each host country with the request. The task of the regulators was to inform the European Commission on the decisions in order to grant the exemption. In fact, only the European Commission is authorized to approve the decision made by the national regulators or to make certain amendments in these decisions within two months[72].

But Gazprom did not request to the European Commission an exemption for the South Stream project because of its negative experience with OPAL (an extension of the Nord Stream pipeline). In this case, Gazprom has been unable to utilise full capacity of its onshore extensions. Although the German regulator granted an exemption allowing Gazprom to use 100% of OPAL, the EC Competition Authority brought it at 50%, following which Gazprom and the EC negotiated for more than a year, and reached a solution allowing Gazprom to utilise 100% of capacity unless access requests were received by third parties. The European Commission was expected to approve the exemption by March 2014 but repeatedly postponed the decision because of technical issues related to the worsening of the relationship between EU and Russia about Ukraine. However, the European Commission terminated its OPAL exemption review procedure in December 2014, because Gazprom failed to prolong the deadline under its settlement agreement on the exemption with the German regulator.

Therefore, because of its previous experience Gazprom decided to start the project based on intergovernmental agreements (IGAs) signed with host countries. The European Commission argued that these agreements breached the TEP and stated that if they would not be either re-negotiated or annulled, infringement procedures against member states involved in the project would have been started.

The Russian Government stated that the IGAs took precedence over the TEP and that the European Commission was unable to prove the contrary. It also filed a request for consultations under the WTO, asserting the discriminatory nature of the TEP[73].

Meanwhile, the South Stream host countries faced the choice of either dismiss the IGAs with Gazprom (making themselves liable to penalties imposed by Russia), either retain the IGAs intact

[72] Gazprom, "South Stream is Estimated to Cost EUR 15.5 billion."

[73] J. Stern, S. Pirani, K. Yafimava, "Does the Cancellation of South Stream Signal a Fundamental Reorientation of Russian Gas Export Policy?"

(making themselves liable to penalties imposed by the European Commission). In the end, the European Commission started two infringement procedures against Bulgaria, the state that was more subject to the pressure from the two sides, mostly because of its geographical importance for the project. The first infringement procedure was based on the TEP incompatibility with the project itself and the other in respect of the breach of the EU public procurement rules of the pipeline. In August 2014, Bulgaria suspended the preparatory operations for the construction of the pipeline, deciding to follow the EU guidelines and receiving the Russian blame for the suspension of the project[74].

The European investors in South Stream, including Eni, avoided commenting on the issue both before and after the project's cancellation.

The operator of the project, South Stream Transport B.V., cancelled the contract with Saipem soon after the demise of South Stream, which led Saipem to subsequently file a lawsuit against South Stream Transport B.V. The claim, worth about 759 million euros, was presented to the International Chamber of Commerce in Paris for arbitration. The lawsuit was filed on November 10, 2015 and became the first major lawsuit against Gazprom seeking compensation as a result of the cancellation of the South Stream project. According to the words of Saipem, the compensation claim asked for payment for work that was completed prior to the termination of the contract. The filed lawsuit could have become part of a joint claim for damages inflicted by the breach of contract and for recovery from damages against the subsidiary of Gazprom[75].

In the end, Saipem and South Stream Transport B.V signed a peaceful settlement agreement over the cancelled gas pipeline South Stream in 2019.

The South Stream cancellation was followed by a Russian announcement that it would be replaced with the TurkStream project, envisaged to deliver gas across the Black Sea directly to Turkey, the only path to Europe left that does not rely on EU transit states.

According to one strand of analysts' opinion, the demise of the project was expected not only because of the challenges of the EU legal framework and the increasing tensions between Russia and the EU following the crisis in Ukraine, but mostly because of economic problems that hit Russia deriving from sanctions imposed by the EU and the falling oil prices[76]. However, it seems likely that this was an additional reason for its cancellation, not the principal one[77].

[74] S. Tagliapietra, M. Hafner, "Turkish Stream: What Strategy for Europe?"

[75] S. Reed, "Gazprom Cancels Italian Contractor's Deal For Black Sea Pipeline", New York Times, July 2015, https://www.nytimes.com/2015/07/10/business/international/gazprom-saipem-pipeline.html?register=email&auth=register-email.

[76] J. Yardley, J. Becker, "How Putin Forged a Pipeline Deal that Derailed", New York Times, December 2014, https://www.nytimes.com/2014/12/31/world/europe/how-putin-forged-a-pipeline-deal-that-derailed-.html.

[77] A. Nardelli, S. Merler, "Falling Oil, Rising Cucumber Prices: How Much Trouble is Russia in?", The Guardian, 2014, https://www.theguardian.com/world/datablog/2014/dec/11/russia-oil-inflation-prices-putin.

According to Stern, Pirani and Yafimava (2015), in fact, when the project was cancelled Gazprom had already spent $4.7 billion on the offshore and European sections, most of which would have been for the offshore pipe and the charter of the barge. Moreover:

• "The pipe for the first offshore line was already on the dock at Varna and the pipe for the second line had been ordered;

• The barges for laying the first two lines had been chartered and the first had already arrived at Varna;

• The western route of the (Russian) Southern Corridor and the Russkaya compressor station were under construction;

• A small amount of construction had taken place in Bulgaria and Serbia" (Stern, Pirani, Yafimava, 2015).

However, the considerations on the investment made for South Stream lead to question the cost-efficiency of the project and the reasons behind the joint venture of Gazprom and Eni. In fact, from the moment of the announcement of the South Stream construction, it was argued that huge amounts of money would have been spent to build an additional supply route to Europe which was not needed, due to the position of the EU in respect to the principle of diversification of supplies. The EU deemed the South Stream generally negative, because it was not consistent with the European policy about supply diversification, which is at the basis of the European energy security strategy. This led many analysts think that Russia prioritized its geopolitical interests over the economic ones and confirmed that the primary reason behind the construction of the project was to expand the presence of Gazprom in Europe.

South Stream represented a crucial project for the Russian gas export strategy, which focused mostly on finding an alternative route bypassing Ukraine and by undermining the competition from gas coming from Central Asia and the Caspian Sea. Moreover, it could have meant a major gas connection to the Central and South Eastern Europe countries, delivering directly to Bulgaria and then to Serbia up to the other customers[78].

According to the analysis of Baev (2014), when the first draft was agreed by Gazprom and Eni in 2007, the prospect for delivering additional volumes of gas to the European market appeared unproblematic. However, by the end of 2008, the European Commission had presented the Energy Security and Solidarity Action Plan with the '20-20-20' targets (20% increase in energy

[78] J. Stern, S. Pirani, K. Yafimava, "Does the Cancellation of South Stream Signal a Fundamental Reorientation of Russian Gas Export Policy?"

efficiency, 20% reduction of CO2 emissions, and 20% renewables by 2020). The EU renewables and efficiency policies were a significant contribution for reducing its overall gas demand[79]. Moreover, in mid-2009, the 30 % drop in the volume of European imports of Russian gas confirmed that the market was in steep decline, due to the serious economic crisis that affected all the European countries between 2008 and 2011, and due to the interest of the EU to pursue more ecologically-friendly policies in the energy field.

Surprisingly, the planned capacity of the underwater pipeline of the South Stream was increased from 30 bcm to 63 bcm, even if the cost estimates were not revised accordingly.

According to Baev, the underwater part of the pipeline would have costed Gazprom more than 8.5 billion euros, which is a sign that the company saw no need to save the finances needed for this investment. This attitude alarmed Paolo Scaroni, CEO of Eni, who suggested to find a way to merge the South Stream and Nabucco projects to reduce the operative costs of the pipelines. Gazprom did not redesign the project and followed the original plan despite its cost inefficiency[80].

Also the analysis presented by Chyong and Hobbs (2014) focused on the South Stream investment and its financial valuation (in particular of its cost efficiency compared to the utilization of the existing pipelines in Ukraine), and confirmed the importance of geopolitics over economic investments. The analysis showed that for Gazprom's strategy, from an economic point of view, would have been more efficient just by eliminating the monopoly of Ukraine on gas transit, not by completely avoiding Ukraine as a transit state. From the analysis it appeared that using Ukrainian pipelines was more cost effective for Gazprom than building South Stream.

The analysis confirms that using the Ukrainian pipelines was in Gazprom's interest because of the risks of gas disruptions in Ukraine. Therefore, avoiding transit risk might have justified the construction of this costly pipeline. Gazprom originally planned that South Stream would have the capacity to deliver 31 bcm per year of gas to Europe bypassing Ukraine but decided to increase the transport capacity of the South Stream system to 63 bcm per year after the two gas transit disruptions through Ukraine in 2006 and 2009.

As it was originally planned by Gazprom, the South Stream route would have allowed the company to export gas to Italy through the northern route, passing through Serbia, Hungary and Slovenia, and the southern route, through Greece and under the Ionian Sea to Southern Italy. Thus, according to the cost estimates of the South Stream pipeline, it would have been cheaper to export gas to Italy via Ukraine if the gas originates from Russia or Turkmenistan. The southern route of the South Stream pipeline was more expensive than its northern route due to a higher taxation rate in Greece

[79] A. Grigas, *The New Geopolitics of Natural Gas*, 151.

[80] P. Baev, I. Øverland, "The South Stream versus Nabucco Pipeline Race: Geopolitical and Economic Irrationales and Political Stakes in Mega-Projects", 2010, accessed August 5, 2019, https://www.academia.edu/1407065/The_South_Stream_versus_Nabucco_pipeline_race_geopolitical_and_economic_ir_rationales_and_political_stakes_in_mega_projects.

and to the higher construction costs of the offshore pipeline that goes under the Ionian Sea. According to the analysis, South Stream could have been used to supply gas along its route, to Bulgaria, Turkey, Greece and Serbia. For these four markets, Gazprom should have used the South Stream pipeline, as it appeared to be cost competitive compared to the Ukrainian route. However, these four markets are smaller than Gazprom's two largest markets, Germany and Italy.

In general, the estimated costs of building and using the South Stream pipeline show that the pipeline configuration was not cost-effective compared to the Ukrainian route. Therefore, meeting future gas demand and pre-empting competing supplies from the Caspian and Middle East regions may be more cost-efficient through Ukrainian pipelines[81].

As to the Italian interests for the South Stream project, the focus was on the possibility to receive gas directly on the Italian shores, and according to the CEO of Eni Scaroni, ensuring security of gas supplies to Europe. This attitude was deeply criticised by the European authorities, who argued that the pipeline was against Western interest and would have indeed competed against the Nabucco project. In fact, they claimed that the South Stream would have affected the principle of diversification of supplies[82]. However, Italy continued outlining the importance of South Stream downplaying the accusations of competition between Nabucco and South Stream[83].

The position of Italy has been a peculiar one: on one hand, in fact Eni tried to take advantage of the relationship with Gazprom by developing common projects; on the other hand, Eni has also pursued a policy of diversification of supplies, since Italy never deviated from the indications of the EU.

Initially, Italy showed an initial great enthusiasm for the project, claiming to support the dialogue on the energy field between Russia and the EU. In particular, the Italian Foreign Minister Federica Mogherini initially stated that: “South Stream has always been a project of strategic significance for Italy since it would help to diversify routes for the Russian natural gas supplies, eventually enhancing energy security both for Italy and the European Union”[84]. However, when the European Commission took a firm approach towards the implementation of the project, the Italian Minister underlined that: “The South Stream must respect and take into account all European norms in the energy sector, and we (Italy) are ready to work on promoting the dialogue between Russia and the European Union in this sphere”[85].

[81] C. Chyong, B.F. Hobbs, “Strategic Eurasian Natural Gas Market Model for Energy Security and Policy Analysis: Formulation and Application to South Stream”, Energy Economics, vol. 44 (2014): 198-211, https://www.sciencedirect.com/science/article/pii/S0140988314000905#s0055.

[82] G. Giacomello, B. Verbeek, *Italy’s Foreign Policy in the Twenty-First Century: The New Assertiveness of an Aspiring Middle Power*, (Lanham MD: Lexington Books, 2011), 187.

[83] Ibid, 188.

[84] TASS Russian News Agency, “Italy Ready to Mediate Energy Dialogue between Russia, EU-FM”, July 2014, https://tass.com/economy/739508.

[85] Ibid.

When the project was cancelled, the Minister was ready to confirm that talks between the EU and Russia could only be restored after appropriate political conditions would be met[86]. Ultimately, the South Stream project could be revived if the project work will be in line with the EU regulation.

[86] Novinite, "Mogherini: South Stream Gas Pipeline not on EU Priority List", October 2014, https://www.novinite.com/articles/163902/Mogherini%3A+South+Stream+Gas+Pipeline+Not+On+EU+Priority+List.

CHAPTER 4

Future Prospects for Cooperation

Based on the South Stream project demise, it could be affirmed that the possibility to enhance trade in energy resources between Italy and Russia depends very much on the status of the relations between the EU and Russia, mostly due to the commitment of Italy to follow European directives and regulations.

As mentioned in the second chapter, Gazprom is facing different challenges in the European market (LNG competition, EU legislation, market changes).

Moreover, the EU has been committed to the development of renewables sources and to a strategy of supply diversification as the main targets for its energy market: this picture should not be taken as a way to undermine Russian imports, but that will likely consequently decrease the imports of Russian gas in the future.

At the same time, it is clear that in the short-term Europe is dependent on the Russian gas, and arrangements between the EU and Russia should therefore focus on the short-term perspectives, ensuring efficient trade relations in a way not to cause the abrupt collapse of the Russian exports to the EU (and not negatively affect Russian economy) and not to cause supply problems to the EU. The cooperation between the two sides could be reinforced by working on areas of shared common interest, namely:

- **Expansion of energy dialogue:**

Due to the current political tension between the EU and Russia, which led to a set of sanctions and the impact on their relations, there is the need to pursue the way of dialogue that has been altered after the events of 2014.

The dialogue should start based on the EU-Russia energy dialogue that was launched in 2000 in the context of the increase in energy prices and the EU-Russia Summit, and then reasserted with the publication of the "Roadmap EU-Russia Energy Cooperation until 2050" in 2013.

The energy dialogue had positive results, acting as a forum to solve problems and opening the way to European investment in the Russian energy market.

This dialogue recognizes that Russia and the EU are natural partners in the energy sector and have mutual interests in enhancing the continent's energy security.

International representatives from the industry were invited to take part in thematic groups (investment, infrastructure, trade and energy efficiency) which included both Russian and European experts from the corporate sector and national administrations who were in charge of examining areas of common interest and defining priority sectors for cooperation.

Senior officials were appointed on the two sides to oversee the dialogue and a Technology Centre was established in November 2002 to exchange information and promote new energy technology, with the aim of increasing the development of Russia's oil and gas sectors. The Centre has organised discussions on exploiting Russian reserves and upgrading the Russian oil refining system. Moreover, in 2005 the UK Presidency of the EU sought to prioritise the energy relationship, instituting a Permanent Partnership Council meeting that was held on October 3, 2005. This has helped to structure the relationship by creating a broader set of interlocutors[87].

In the gas sector, discussions have focused on the topics of security of supply and security of demand, as well as market developments.

During the 2009 crisis in Ukraine, the European Commission, the Russian Federation and Ukraine agreed on Technical Terms for Monitoring the Gas Supply Through Ukraine, whose implementation helped to resume supply in the same year. Moreover, in November 2009 the Coordinators of the Dialogue signed an Early Warning Mechanism, which aims at ensuring rapid communication and preventing supply interruptions[88].

Despite the obstacles for a well-functioning energy partnership, the interest on both sides is likely to sustain the dialogue in the coming years. The energy relationship is simply too important for either side to stop the dialogue.

- **Security:**

The main framework for agreement should be reached in terms of security, since Russia remains the dominant gas provider for Europe. After the South Stream cancellation, Russia still needs its Ukraine route to supply gas to Europe. The demise of the projects highlights that the balance of gas suppliers to Europe is unlikely to change[89].

However, the EU today is facing a major decline in its gas production, and it is importing two-thirds of its gas demand: the market is therefore increasingly dependent on imports.

As the dependency of industrialised countries on energy producers is foreseen to increase, their governments need to arrange new agreements with energy exporters. Therefore, it is important that both the EU and Russia rethink their energy security strategy to foster further trade in the energy sector.

[87] A. Monaghan, L. Montanaro-Jankowski, "EU-Russia Energy Relations: The Need for Active Engagement", European Policy Centre, March 2006, accessed July 12, 2019, https://www.epc.eu/documents/uploads/89495137_EPC%20Issue%20Paper%2045%20EU-Russia%20energy%20relations.pdf.

[88] The European Commission, "EU-Russia Energy Dialogue. The First Ten Years 2000-2010", accessed August 4, 2019, https://ec.europa.eu/energy/sites/ener/files/documents/2011_eu-russia_energy_relations.pdf.

[89] G. Stang, "The Bear and the Beaver: Russian and European Energy Security", European Union Institute for Energy Studies, Brief – no.22 (03 July 2015), https://www.iss.europa.eu/sites/default/files/EUISSFiles/Brief%2022%20energy%20security.pdf.

The biggest challenge for the two sides is that they have a different understanding of energy security: Europe, as all the other energy importers, focuses on the security of supply that means sustainable energy production and stable oil and gas deliveries from energy exporters, while a producing country like Russia is concerned with stable revenues and guarantees of demand security from energy consuming countries[90]. Thus, it is clear that economic reasons need to be balanced based on the protection of this interest. In order to reach a stable framework for agreements, producing and consuming nations need to adjust their diverse view to promote deeper integration within oil and gas markets.

It is argued that the mutual dependency scheme between the EU and Russia, which is considered a mean to ensure the continued functioning of their gas relationship, could not work in the future. This framework was not able to prevent supply disruptions in the past, and will not ensure stable cooperation in the future, since Russia is highly exposed to negative consequences of a potential gas cut-off, as low oil prices and sanctions are already hurting the economy and the government's financial resources. Moreover, the EU would benefit from a new approach to ensure the security of its gas supply, since its gas imports will increase in the short-medium term.

On the other hand, Tagliapietra and Zachmann (2016) argue that the EU's already existing gas infrastructure is sufficient to buffer a major supply shock: even if all the gas imported came from one supplier (e.g. Russia), the EU need not be concerned, as long as it has credible alternatives to replace these supplies.

They argue that the aim of the EU should not be focusing on expensive policies to increase supply diversification and to reduce dependency on imports but should be creating an EU market for a gas security margin, seen as an EU asset in the context of the unpredictability of as supplies. According to this view, security of gas supply means retaining unused options aimed at facing the greatest possible shortfall. Therefore, gas supply security could be safeguarded more effectively by maintaining unused alternatives which can be used in case of supply disruption from a key supplier. The market for a gas security margin would be designed to have the lowest possible cost by relying on the cheapest flexibility options available and would take the political feasibility of these measures into account.

Increasing the security of supply of the EU would have a beneficial effect on the Russian-EU relations in the energy sector: this approach would not focus on decreasing imports from Russia in favour of a costlier approach of supply diversification from the EU perspective, and would foster better relations between the two sides, resulting in more stable agreements in energy trade.

- **New legal agreement:**

[90] S. Tagliapietra, G. Zachmann, "Rethinking the Security of the European Union's Gas Supply", January 2016, accessed August 3, 2019, https://bruegel.org/2016/01/rethinking-the-security-of-the-european-unions-gas-supply/.

In terms of international law, the mechanisms that creates the legal framework for cooperation in the energy sector between Russia and the EU are the Partnership and Cooperation Agreement (PCA) and the Energy Charter Treaty (ECT). However, each of them has significant problems in the light of the EU security of energy supply priorities and each of them cannot act as a framework to ensure stable energy flows from Russia westwards. The problems of the ECT concern foreign investment in the energy sector: the freedom of the foreign companies to get access to the industry producing energy resources in producing countries promotes the redistribution of the ground rent in favour of the foreign companies. Moreover, the foreign investors achieve certain rights, which are directly connected with the object of investment (natural resources), giving the possibility for the investors to claim a certain share of the profit.

The Russian Federation has signed the ECT but has not ratified it.

In the same way, the trade regime provided for by the PCA shows evident problems. The Agreement, based on GATT provisions, forbids quantitative restrictions and discriminatory taxation of imported goods. The principle of the freedom of transit is one of the conditions essential for the achievement of the purposes of the Agreement. Each Party is expected to provide for freedom of transit through its territory of goods originating in the customs territory or destined for the customs territory of the other party.

However, it is necessary to recall the exceptions from that principle contained in the article 19 of the PCA, which provide that the Agreement can preclude prohibitions or restrictions on imports, exports or goods in transit justified only on grounds of public morality, public policy or public security and on grounds of protection of natural resources.

The European Union has expressed concern over the obstacles for the natural gas transit from Middle Asia (the former URSS countries in the Caspian region) through the Russian Unified System of Gas Supply to the European market. The EU argues that the exception for the purposes of protection of natural resources may serve as a valid legal basis for the limitation of the freedom of transit. It is therefore clear that the rules of the PCA cannot guaranty the security of energy supply to European Union by means of diversification of supply and transportation from the former USSR countries in Asia countries that do not have common frontier with the EU. In addition, these concerns of the EU have never been taken to formal resolution under the rules of international law. Therefore, it is clear that in order to create an international regime providing for security of supply, the strategic interests of both Russia and the EU should be taken into account and both parties should obviously make mutual concessions, and that trade in oil and gas between Russia and the EU requires a more solid international legal basis[91].

[91] S. Seliverstov, "Energy Security of Russia and EU: Current Legal Problems", Institut Français des Relations Internationales (IFRI), 2009,), April 2009, accessed August 10, 2019 https://inis.iaea.org/collection/NCLCollectionStore/_Public/42/052/42052644.pdf

- **Liberalization of the Russian Energy market:**

As showed in the research, Russia has pursued a monopole model for the development of its energy market, despite the EU pressures to promote an energy market reform.

As it has been highlighted before, there is a growing gap between the EU's effort to liberalise its energy markets and the supply of Russian gas through Gazprom, that continues to supply the EU customers under long-term supply contracts. The majority of these contracts contain territorial restriction clauses, indicating that if one EU country receives more gas than it needs it is not allowed to sell it to its neighbours. The clauses are in breach of EU single market rules, since by allowing Gazprom to sell gas to different EU countries at different prices they prevent the EU from developing a unified gas market. Negotiations between Gazprom and the European Commission have led to some progress in this aspect[92].

Moreover, as described in the second chapter, changes in the international gas trade and the European policy of market liberalization challenge the Gazprom model of gas export based on long-term contracts. European demand has been declining around the year 2010, due to the environmental policy of the EU and the economic crisis that hit the European countries between 2008 and 2011, and it is now recovering very gradually. The growing availability of LNG, and ongoing liberalization and integration of the EU gas market and the stagnating demand, led to the decline of prices and resulted in increased pressure on Gazprom to adapt and modify its modus operandi in the EU[93].

The European market is experiencing a shift from oil price indexed formulas (long-term contracts and the reference pricing mechanism based on oil indexation) to gas-on-gas competition (competitive trading and contracts that take into account spot price indexation in the pricing formulas, or even a 100% spot price indexation).

The aim of the European regulators is to generate competition between different sources of supply and reduce obstacles to gas circulating within the European network, as well as promote the single market integration, as reflected in the adoption of the TEP. Therefore, the ability of Gazprom to increase prices or exert monopolistic power over its market is gradually being eroded, mostly because of competition and abundant supplies in the gas market[94].

Gazprom's future export strategy to Europe will depend on its ability to act and adapt to the more volatile conditions of today's European market. Russia has to adapt its gas strategy to these more challenging circumstances, which currently means further support for a controlled liberalization

[92] C. Grant, K. Barysch, "The EU-Russia Energy Dialogue", Centre for European Reform, May 2003, accessed July 9, 2019, https://www.cer.eu/sites/default/files/publications/attachments/pdf/2011/briefing_eu_russia-3858.pdf

[93] Istituto Affari Internazionali, *The Future of Natural Gas, Markets and Geopolitics*, (RS Hof van Twente: Lenthe, 2016), 178.

[94] A. Grigas, *The New Geopolitics of Natural Gas*, 130.

process. This would also mean passing to other actors some of the functions that Gazprom has been fulfilling until now, with the result of a more oligopolistic structure for the Russian gas market[95].

This would remove another argument against Russian gas in Europe, while sending Gazprom down a more logical marketing path.

- **Investment projects in the Russian energy sector:**

Investing directly in the Russian energy sector could be an asset for reinforcing cooperation between the two sides.

Given that energy supply can be discontinued for a variety of reasons, either intentionally by terrorist attacks or by natural disasters, it is in the interest of both Russia and the EU to minimise these risks by cooperating more actively on the protection of critical infrastructure.

The European Commission's Green Paper of March 2006 points out that the EU needs "a new mechanism to enable rapid and coordinated reactions to emergency energy supply situations". Gazprom is responsible for protecting gas pipelines and Rosneft for protecting oil pipelines, and $1 billion per year is invested on their security. The EU has developed the TACIS framework for the protection of transport networks in the CIS countries and Georgia. The EU should also cooperate more closely with Russia to implement measures to protect the integrity and maintenance of pipelines and electricity grids. In this respect, the two sides could cooperate by enhancing satellite cooperation and civil emergency cooperation to monitor the security of supply. The establishment of a mechanism for financial assistance from international bodies for the construction of gas pipelines could also be pursued.

The EU could consider the European Investment Bank (EIB) and the European Bank of Reconstruction and Development (EBRD) as other sources of funding.

Investments in the under-funded energy sector could also give the EU some influence over the development of the energy sector and support commercially-led investment. The EIB and EBRD could therefore facilitate the financing of energy infrastructure projects more actively by giving access to loans and improving conditions for project promoters[96].

- **Renewable energy sources**

The cooperation between the EU and Russia in the renewable energy sector is currently underdeveloped, and closer cooperation is regarded as mutually-beneficial in this field.

This stance is highlighted in the "Roadmap EU-Russia Energy Cooperation until 2050". The Russian Federation could develop its own legislation based on the EU experience and could

[95] Istituto Affari Internazionali, *The Future of Natural Gas, Markets and Geopolitics,* 167.

[96] A. Monaghan, L. Montanaro-Jankowski, "EU-Russia Energy Relations: The Need for Active Engagement."

import from the EU technologies and innovation for the promotion of the renewable energy market in Russia. Due to the more favourable investment conditions, this development could attract European companies and support the implementation of renewable sources.

The establishment of this framework is regarded as beneficial also in view of the protection of the future generations, also due to the Russian great potential for developing renewable energy sources.

On its side, the EU could benefit in return from the development of a new market for the European renewable energy technologies. Moreover, the availability of Russian renewable sources could lead to reduced costs for energy in the EU.

In specific, the document highlights that in the future the rise of renewable sources in the European energy mix will require back-up capacity, mainly gas-fired power generation, which could highlight the interdependence of the two sides in the energy field.

In the short-term, the focus to meet the targets should be on establishing a good market environment in Russia for the production of biomass, wind or solar electricity. The parties could subsequently discuss the possibility to create projects for the export of electricity produced in Russia from renewables, from Russia to the EU[97].

[97] The European Commission, "Roadmap: EU-Russia Energy Cooperation until 2050."

CONCLUSIONS

By analysing the evolution of the economic relationship in the energy sector between Italy and Russia, the research has shown that their commercial partnership to a great extent depends on the status of the relations between the European Union and the Russian Federation.

The first chapter, which provided a historical evolution of trade between the two sides in energy sources, highlighted that the cooperation between Italy and Russia was born from the need of Italy to import resources which the country had scarcity of, a strategy that was common to many European countries and that led to an increase of the EU's dependency on energy imports from Russia.

From the fall of the Soviet Union onwards, Russia enjoyed the position of principal energy exporter to Europe, and Gazprom held a condition of quasi monopoly on the energy exports to the EU: today Italy is still dependent on Russian gas, a situation that will not change in the nearest future. However, from 2009-2010, several factors started to erode the supremacy of Gazprom in the EU: the impact of the economic crisis, the changes in the gas market, the growth of LNG, the TEP regulations and the new policy course of the EU in terms of energy security and renewables are challenges that started to hinder the predominance of Russian gas imports in Europe.

As discussed in the second and third chapter, the economic recession experienced from 2008 in the European countries led to a sharp decrease in Gazprom's sales in the EU market. Moreover, the introduction of the TEP policy of 2009, aimed at increasing market liberalization, contrasts the monopolistic model adopted by Russia in its energy market.

The demise of the South Stream project has proven to be a case study for showing how the evolving nature of the European directives and regulations affects the decision of the various countries in terms of decisions on energy matters and are ultimately responsible for the failure of the joint-venture of Eni and Gazprom.

However, it is also stated that, because Russia could always renegotiate the nature of the contracts in terms more favourable to the conditions set by the EU, it will be possible to continue the project work if these conditions will be met.

The potential growth of the LNG from the US could represent instead a concrete challenge to Gazprom, mostly because it can be supplied through an alternative pricing formula in respect to its long-term contracts and because it represents a good solution in strategic terms for the EU.

However, the two most important factors that will hinder the relations between Italy and Russia are the decision of the European Union to follow the path of an increase in renewable energy sources and commitment to a green economy model, together with the issue of implementing energy security. This is widely discussed in the second chapter, mentioning the strategic documents

of the EU and its directives, which Italy is obliged to comply with and are reflected in the Italian energy strategy of 2017 and 2018.

Because of the two different paths that the EU and Russia follow in terms of energy strategy (Russia as a producing country and Italy as an importer), the dependency of the EU on Russian gas will decrease in the long-term. As underlined in the research, this should not be perceived as a way to undermine Russian economy by harming its energy exports. Instead, it has to be perceived as a result of change of global environment in the energy market, which is undergoing a process of de-regionalization of which the EU is deeply aware. Because of the policy choice of the EU and the need of the Russian Federation to support its economy, this transition should be planned on both sides, in order not to negatively affect the Russian economy. Moreover, as the EU is still dependent on Russian gas, it is argued that cooperation based on common interests would be the best choice to maintain solid trade relations between the two sides in the short-term.

More specifically, the following consideration have been elaborated as a starting point to help increase cooperation:

-An expansion of energy dialogue between the EU and Russia, which deeply changed after the events of 2014, would represent the starting point for discussing arrangements and solve conflicts. Creating a new forum for discussion would help promoting new business agreements and ensure the good functioning of the energy supply system;

-A new approach of the EU towards the issue of energy security would be the way to reduce tensions between the two sides, given that the EU decision to follow a diversification of supplies approach is perceived as a threat to the Russian export strategy. This approach will aim at creating a mechanism to achieve energy security without decreasing dependency on Russia in the short-term, subsequently maintaining trade relationships between the two sides intact;

-A new agreement should be the basis to provide a legal framework to manage export of energy resources from Russia to the EU that should take into consideration the different interest between the two sides. This agreement, apart from the PCA is not yet in place;

-The liberalization of the energy market in Russia is an issue highly advocated in the country. Based on the interest of the EU and the interest of other Russian companies to liberalize the market, this will adapt the Russian export strategy to more favourable conditions envisaged by the EU. This will reduce the perception of the monopolistic nature of the Russian exports as a threat and foster the efficiency of new joint projects (as was the case with the South Stream failure);

-Cooperation in infrastructure will also be essential for the two sides, since it is in the interest of both the EU and Russia to protect infrastructure from potential damage. Moreover, European investment in infrastructure will be an important contribution for promoting the exchange of technologies and support European investment in the Russian energy sector;

-Cooperation in the development of renewable sources will be an important starting point for increasing European investment in Russia and potentially decreasing the energy costs in the EU. In addition, the possibility to create projects for the export of electricity produced from renewable resources from Russia to the EU would highlight their role as natural partners in the field and promote further commercial exchange between the parties.

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THESIS SUMMARY

Economic relations between Italy and Russia play an important role in shaping the bilateral relations of the two countries. According to the data provided by ISTAT, in 2017 trade between the two sides amounted to 20.3 billion euros: Italian exports to Russia reached 8 billion euros, while Italian imports from Russia reached 12.3 billion euros.

In 2018, Italy was the seventh customer and fifth supplier of Russia, meaning that Italy is the largest trading partner for the Russian Federation in the European Union after Germany.

The economic relations are particularly relevant in the energy sector, since the majority of the Russian exports to Italy are in fact represented by energy sources, with Russia being the principal energy supplier of Italy.

The research focuses on providing an answer to the question: to what extent their economic ties could be improved and to what extent their current strategies affect trade in the energy field, due to the Italian commitment to follow the EU guidelines?

In order to answer this specific question, the first chapter of the dissertation focused on analysing the historical causes that led the two countries to engage in cooperation in the energy field. The reasons for the growing importance of trade in energy resources has to be found in the different history of their exploitation in the two countries, which led to establish a long-term partnership based on mutual interest.

Italy is not a producer of fossil fuels, while Russia is one of the most important producer of energy sources globally.

Because of the huge economic boom experienced by Italy after the World War II and the abundance of natural resources in the former Soviet Union, from the 1950s onwards the two sides developed trade of energy sources based on standard contract formulas: while the Soviet Union provided Italy of natural resources that could help the country meeting the internal demand of energy, Italy provided USSR of useful European technology and materials. Payment with Western equipment was favourable for USSR because of the need to carry on domestic projects for the development of the Western Siberian fields, discovered at the east of the Ural Mountains.

Particularly important was trade in natural gas. Being secondary to the oil industry, in the Soviet Union all the activities connected to gas were managed by the Head Department of Natural Gas Production in the period 1948-1960. The department was placed under the Ministry of Oil Industry, which was responsible for production, transport and sales of natural gas.

The department was reorganised in the Head Department for Gas Industry in 1956, under the Council of Ministers of the Soviet Union, and only in 1963 the Committee of the Gas Industry was established and placed under a ministry in 1965.

The company responsible for pioneering the deals with USSR was Eni, the newly established company led by Enrico Mattei. The cooperation with the Soviet Union at this time was considered convenient on the Italian side because responded to the Italian strategy of diversification of gas supplies and was favourable for the prices at which the USSR was selling its resources.

In fact, natural gas gained an important role in the Italian economy between 1950 and 1970 but the domestic consmption was not sufficient to meet its growing domestic demand, leading Italy to seek to import energy sources from abroad.

The most important project at that time was the pipeline deal of 1969, which involved the laying of a pipeline crossing Czechoslovakia (for 400 km) and Austria (for 390 km), which made possible a quick delivery of gas from Austria to Italy. The deal was concluded in 1969 because of the delays of the Italian Government in approving the project, while the actual gas delivery occurred only in 1974.

The expansion of the cooperation in gas trade was also influenced by the oil shocks of the 1970s, which saw the growing importance of gas as an alternative to petroleum. The oil shocks were also responsible for a change in the energy strategy of the Soviet Union: oil prices boosted the production of gas to replace oil, while also lifting the price that the USSR charged for its exports. This led to a subsequent increase of dependency on the resources in the Western Siberian fields, which were connected directly and increasingly with demand centres in the West. The new formulas for contracts on gas delivery between the Western nations and the USSR involved long-term contracts with prices for gas indexed to the price of oil. The contracts included also ‘take-or-pay’ clauses that allowed the two parties to share the risks between them.

The advance in trade was supported by the atmosphere of détente, which brought the Eastern and Western bloc in closer cooperation and that saw the results of the investment in the Soviet energy sector.

The Reagan administration of the ‘80s put a stop to the Western consensus on Soviet oil and gas imports, culminating in the imposition of sanctions aimed at reducing the revenues that the USSR obtained by its exports.

The subsequent end of the Cold War and the fall of the Soviet Union saw the rise of Gazprom, which was established along with the merging the Oil and Gas Industries into one ministry in 1989, responsible for the production, distribution and sales of gas within and outside the Soviet Union. The company was reorganized by presidential decree into a joint-stock company after the fall of the Soviet Union, then privatized in three years, forming an open joint stock company and gained control of the majority of the Russian gas exports in the 1990s.

In the same years, Eni was also progressively privatized, despite the company’s involvement in most governmental energy decisions, which have contributed to shape the energy strategy of Italy.

The fall of the Soviet Union changed the relations between the two sides. The Western nations

were eager to protect the investment in the Russian energy sector by following international guidelines. These ideas were at the basis of the Energy Charter Treaty (ECT), created in 1991 to form an international regime in order to regulate trade, investment and transit of energy resources. The agreement was not ratified by Russia, that opted for its own approach, by controlling gas flows and export routes and securing market access.

The difficulties with payment defaulters, the relatively low regulated gas prices and the diminishing demand for gas in Russia and in the other former Soviet republics during the 1990s forced Gazprom to focus on the European export markets to generate hard currency income. Despite the problems arising from the fall of the USSR, Italy and Russia continued to maintain a steady cooperation on trade in energy sources.

As it is described in the second chapter, from the 2000s onwards, their cooperation increased with the advent of the presidency of Vladimir Putin, who put the energy sector under the State control. Russian exports were used as a source of revenue and as a mean to strengthen the relationship with several EU member states. In fact, because of the growing importance of gas as the most environmentally friendly fossil fuel, the EU had developed dependency on Russian exports and the Russian energy strategy from the 2000s onwards was characterized by Russian commercial power over the importing states, due to the monopolistic position of Gazprom. At the same time, Russia became also dependent on the revenues from the European market, developing pipeline projects meant to avoid the dependency on Ukraine as a transit state.

The most significant project born from the cooperation between the two countries in the early 2000s is the Blue Stream project, which is the result of the Strategic Alliance Agreement between Eni and Gazprom in 1998, which is a result of this specific aim.

The Blue Stream project envisaged the connection of the Russian and Turkish coasts via an offshore route in the Black Sea. The full capacity of the pipeline is of 16 bcm of gas annually.

Overall, Eni and Gazprom have always kept very close business ties that have helped Eni to retain its role as the main intermediary for Russian gas in the Italian market, which resulted in the increase of their mutual dependency.

From 2001 to 2019 Italy and Russia have been involved in signing strategic agreements, memoranda of understanding and promoting investment and cooperation in energy trade through Eni and Gazprom. Specifically, in 2014 Eni and Gazprom signed new agreements which envisaged major concessions for Eni, as Gazprom agreed to make reference to spot-market gas prices in long-term contracts. As Gazprom has long resisted this change in the gas pricing mechanism in Europe, this change signalled both new pricing pressures in the changing global gas market and a sign of good relations with Eni.

Although trade in energy resources is primarily connected to the activities of Gazprom and Eni, Italy and Russia deepened their cooperation also in the oil sector, the electricity sector and the

manufacturing industry, through the activities of ENEL in Russia. At the same time, Rosneft and Lukoil acquired controlling stakes in two refineries in Italy, despite a number of factors undermining their cooperation, of which the EU policies on climate defense are the most significant.

First and foremost, the research highlights that the first challenge to Gazprom in Europe was the economic crisis that European countries experienced between 2008 and 2011. The economic crisis resulted in a remarkable decline of the energy demand and, consequently, of the gas sales prices of Gazprom.

In addition, the EU market started to shift from oil linked pricing to hub-based pricing, undermining Gazprom's traditional model of long-term contracts based on oil-linked prices. Another important challenge to Russian gas in Europe is the development of LNG, which is eroding the market share of the traditional exports by pipeline and is overcoming the regionalization of the gas market. In particular, the LNG coming from the US is a direct source of competition towards Gazprom, as it provides gas under an alternative pricing formula along with a broader diversification of gas sources.

It has to be pointed out that the European market was subjected to a change with the introduction of the European legislation concerning the functioning of the internal energy market. The "Third Energy Package" (TEP), was aimed at creating a single EU gas and electricity market by introducing effective and properly regulated competition, which means challenging the monopoly of Gazprom in Europe.

However, the strongest arguments that in the long-term will undermine the role of Russian gas in the EU, and subsequently in Italy, are based on the issues of climate defense and energy security. The interest in developing renewable energy sources has already contributed to the decline of the European gas demand. The EU has committed itself to strengthen environmental protection and to minimize the risks derived from climate change. In doing so, they adopted a series of documents defining the long-term goals: the "Climate and Energy Package", a set of binding legislation to ensure that the EU meets its climate and energy targets for year 2020, was directed in legislation in 2009; the "2030 Climate and Energy Framework", including EU-wide objectives for the period from 2021 to 2030, was approved by the European Council in October at the end of 2018; The "2050 Long Term Strategy", issued in 2018 by the European Commission, calls for a competitive and climate-neutral economy in Europe by 2050, in line with the Paris' Agreement objective.

The EU guidelines are reflected into the new Italian national energy strategy, issued in 2017 and 2018, with a focus on a number of objectives aimed at reducing energy consumption, improving electricity generation from renewables and strengthening supply security.

Regarding the issue of energy security, the European Union focused on building new routes to reduce the dependency of EU countries on a single supplier of natural gas and other energy

resources, due to the risk of supply disruption from the importing countries. The concern has been highlighted during the 2009 supply crisis in Ukraine, which showed that some EU countries have been severely affected by it. Russia provides a quarter of the EU gas supply, of which 60% passes through Ukraine, which is still the main transit route for Russian gas to Europe. Following the 2014 crisis in Crimea, the issue of energy security became one of the priorities of the Junker Commission, and a new portfolio on Energy Union has been created with the aim of seeking alternatives to eastern sources of gas to reduce the EU dependency on Russian gas. Still, to show the leverage that Russian gas has towards Europe, it should be taken into account that the round of sanctions imposed on Russia by the EU in 2014 affected the oil industry but not the gas sector. In fact, Europe is still the biggest market for the Russian gas exports.

However, the European policies objectives regarding the so called "green growth" is reflected in the Italian draft integrated National Energy and Climate Plan (NECP), which is intended to meet the objective of building a more environmentally friendly economy through decarbonisation, energy efficiency and renewables' priorities. As regards energy security, Italy is planning to reduce import dependency via the increase of renewable sources, energy efficiency efforts and diversification of sources of supply.

The Russian Federation showed different priorities in the development of its energy sector: to a great extent Russia bases its economy on the export of natural resources and their worth makes up about 60% of the GDP of the country. Because of the structure of its energy sector, it has little interest in developing renewable sources, despite significant progress having been made in this direction.

To improve this vision, the Russian Federation issued a number of documents: the Resolution N. 1-r "On the Main Areas of Government Policy to raise the Energy Efficiency of Electric Power from Renewable Energy Sources for the period to 2020" has set a target of 4.5% of all electricity produced and consumed in 2020 coming from renewable energy sources. However, the resolution sets an ambitious goal but does not explicitly state that the targets are mandatory.

In addition, "The Energy Strategy of the Russian Federation for the Period up to 2030", which aims at creating an innovative and efficient energy sector, and the draft of the "Energy Strategy for the Period up to 2035", which focuses on the creation of an innovative and efficient energy sector for sustainable economic growth, mention renewable energy only in passing.

The Decree N. 449 "On the Mechanism for the Promotion of Renewable Energy on the Wholesale Electricity Market", passed in 2013, enabled renewable power projects to receive capacity payments for a period up to 15 years for maintaining readiness to generate electricity on demand. But despite the significant progress made in this direction, the consumption and production of renewable sources is not high compared to Europe.

Because of the different perspectives in terms of use of renewable sources, decarbonization and emissions reductions, the cooperation between Russia and Italy in energy trade is not expected to increase. Most likely, Italy will reduce its dependency on the supply of energy sources from Russia in the long-term, due to the EU guidelines on dependency reduction and green growth.

The third chapter of the dissertation, which focuses on the South Stream problem, could be interpreted as a case-study for showing the impact of the European legislation on the activity of Gazprom in Europe, as it was briefly introduced in the second chapter.

The South Stream project was the biggest joint-project between Eni and Gazprom, and it was intended to supply Russian gas across the Black Sea to Europe, by building the largest European gas infrastructure project aimed at bypassing Ukraine as a transit state. The project was officially announced for the first time in June 2007, when Eni CEO Paolo Scaroni and Gazprom Vice-President Alexander Medvedev signed a Memorandum of Understanding in Rome. In November 2007, Gazprom and Eni signed another agreement in Moscow, in order to establish a joint project company for the realization of the project.

Soon the South Stream project collapsed due to the decisions of the European Union in terms of compliance with the EU regulation. In 2014 the European Parliament passed a resolution calling on member states to cancel planned energy sector agreements with Russia, including the South Stream and in the same year president Putin and CEO of Gazprom Alexey Miller officially announced the cancellation of the project.

The main reason for the demise of South Stream, as highlighted in the research, is an alleged breach of the TEP. The TEP in particular envisages the clauses “ownership unbundling”, which does not allow the supplier to own the pipeline, and “third-access”, which establishes an obligation for the supplier to give competitors access to the pipeline.

In December 2013, the European Commission stated that based on the TEP infringement, South Stream could not operate before reaching an alignment with the EU regulation. In detail, Art. 36 of the TEP envisages the possibility to receive an exemption from the provisions of the TEP if certain conditions are met, enabling the gas pipeline owner with the right to use its full capacity over an extended period of time. However, Gazprom did not apply for the exemption based on its previous experience with the OPAL case and based the project on IGAs (Intergovernmental Agreements) with the host countries.

The South Stream host countries faced the choice of either dismiss the IGAs with Gazprom and make themselves liable to penalties imposed by Russia or retain the IGAs intact and make themselves liable to penalties imposed by the European Commission. In the end, the European Commission started two infringement procedures against Bulgaria, the state that was more subject to the pressure from the two sides, mostly because of its geographical importance for the project. The first infringement procedure was based on the TEP incompatibility with the project itself and

the other in respect of the breach of the EU public procurement rules of the pipeline. In August 2014, Bulgaria suspended the preparatory operations for the construction of the pipeline.

The South Stream cancellation was followed by a Russian announcement that it would be replaced with the TurkStream project, envisaged to deliver gas across the Black Sea directly to Turkey.

The demise of the South Stream project has been erroneously addressed to economic problems derived from sanctions imposed to Russia, but according to the research the evidence shows that this could be only an additional reason for its cancellation. However, from the announcement of the project onwards, the considerations on the investment made for South Stream lead to question the cost-efficiency of the project and the reasons behind the joint venture of Gazprom and Eni. In particular, criticism on the EU side focused on the huge amounts of money that has been spent to build an additional supply route to Europe which was not needed, due to the position of the EU in respect to the principle of diversification of supplies. This has led many analysts to think that Russia prioritized its geopolitical interests rather than the economic ones. South Stream represented a crucial project for the Russian gas export strategy, which focused mostly on finding an alternative route bypassing Ukraine and by undermining the competition from gas coming from Central Asia and the Caspian Sea.

This is suggested by the analysis of Baev and Chyong and Hobbs.

The analysis of Baev suggests that Gazprom planned a project that was cost inefficient from the beginning and that was not revised according to the evidence that after 2009 the gas market was in steep decline, also due to the reduction of the volume of the European imports.

According to the analysis of Chyong and Hobbs, which focused on the South Stream investment and its financial valuation, from an economic perspective Russia would have gained more commercial interest in supplying certain states through the Ukrainian pipelines, rather than completely avoiding Ukraine as a transit state. The estimated costs of building and using the South Stream pipeline show that the pipeline configuration was not cost-effective compared to the Ukrainian route. Therefore, meeting future gas demand and pre-empting competing supplies from the Caspian and Middle East regions may be more cost-efficient through Ukrainian pipelines. The analysis affirms that the project was mainly based on the fear of additional supply disruptions in Ukraine.

It is argued that the position of Italy and Eni has been double: on one hand Eni has always tried to develop common projects with Gazprom, on the other hand it has also pursued a policy of diversification of supplies, according to the policy guidelines of the EU.

Initially, Italy showed an great enthusiasm for the project, claiming to support the dialogue on the energy field between Russia and the EU, but when it was cancelled Italy was ready to reaffirm the priorities of the EU in terms of compliance with the European legislation.

However, this implies that Russia should renegotiate the nature of the contracts in terms more consistrent with the policy guidelines set by the EU.

Based on the evidence collected in both chapter two and chapter three, the dissertation aims at providing insights on the future prospects for cooperation between the two sides and answering the research question.

The possibility to enhance trade in energy resources between Italy and Russia depends mostly on the status of the relations between the EU and Russia, due to the commitment of Italy to follow European directives and regulations. Because Gazprom is facing numerous challenges in the European market (LNG competition, EU legislation, market changes), and the EU has been committed to the development of renewables sources and to a strategy of supply diversification, Italy will likely decrease the imports of Russian gas in the future.

It has been highlighted that in the short-term Italy is still dependent on the Russian gas supplies, and arrangements between the EU and Russia should focus on the short-term perspectives, ensuring efficient trade relations in a way not to cause the abrupt collapse of the Russian exports to the EU. This is aimed at not negatively affecting Russian economy and not causing supply problems to the EU. This picture should not be seen as a way to undermine Russian gas exports in any way. The cooperation between the two sides could be therefore reinforced by working on areas of shared common interest.

First of all, an expansion of energy dialogue between the EU and Russia, which deeply changed after the events of 2014, would represent the starting point for discussing arrangements and solve conflicts. The dialogue should start based on the EU-Russia energy dialogue that was launched in 2000 in the context of the increase in energy prices and the EU-Russia Summit, and then reasserted with the publication of the "Roadmap EU-Russia Energy Cooperation until 2050" in 2013. Creating a new forum for discussion would help promoting new business agreements and ensure the good functioning of the energy supply system.

Secondly, a new approach of the EU towards the issue of energy security would be the way to reduce tensions between the two sides, given that the EU decision to follow a diversification of supplies approach is perceived as a threat to the Russian export strategy. This approach will aim at creating a mechanism to achieve energy security without decreasing dependency on Russia in the short-term, subsequently maintaining trade relationships between the two sides intact. Tagliapietra and Zachmann (2016) argue that the EU's already existing gas infrastructure is sufficient to buffer a major supply shock. They argue that the aim of the EU should not be focusing on expensive policies to increase supply diversification and to reduce dependency on imports but should be creating an EU market for a gas security margin, seen as an EU asset in the context of the unpredictability of supplies.

Thirdly, a new agreement should be the basis to provide a legal framework to manage export of energy resources from Russia to the EU that should take into consideration the different interest between the two sides. This agreement, apart from the Partnership and Cooperation Agreement (PCA) is not yet in place. It is also argued that both the ECT, which Russia has not ratified, and the PCA show evident problems, due to the numerous concerns on both the Russian and EU sides. In particular, the PCA based on GATT provisions, forbids quantitative restrictions and discriminatory taxation on imported goods. The principle of the freedom of transit is one of the conditions essential for the achievement of the purposes of the Agreement. The EU argues that the exception concerning the protection of natural resources by the exporting countreies, provided by art. 19 of the agreement, may serve as a valid legal basis for the limitation of the freedom of transit. It is therefore clear that the clauses of the PCA cannot guaranty the security of energy supply to the European Union. Therefore, it is clear that in order to create an international regime providing for security of supply, the strategic interests of both Russia and the EU should be taken into account and both parties should obviously make mutual concessions, and that trade in oil and gas between Russia and the EU requires a more solid international legal basis.

In addition to that, the research has previously shown that there is a growing gap between the EU's effort to liberalise its energy markets and the supply of Russian gas through Gazprom's long-term supply contracts. The majority of these contracts contain territorial restriction clauses, which are in breach of the EU single market rules. Moreover, the second chapter has highlighted that the European gas demand has been declining around the year 2010, due to the environmental policy of the EU and the economic crisis that hit the European countries between 2008 and 2011, and it is now recovering very gradually. The growing availability of LNG, and ongoing liberalization and integration of the EU gas market and the stagnating demand, led to the decline of prices and resulted in increased pressure on Gazprom to adapt and modify its modus operandi in the EU. Therefore, it is suggested that the liberalization of the Russian energy market will adapt the Russian export strategy to more favourable conditions envisaged by the EU, reducing the perception of the monopolistic nature of the Russian exports as a threat and fostering the efficiency of new joint projects.

Moreover, cooperation in infrastructure will also be essential for the two sides, due to the interest of both the EU and Russia to protect infrastructure from potential damage. The European Commission's Green Paper of March 2006 points out that the EU needs "a new mechanism to enable rapid and coordinated reactions to emergency energy supply situations". Gazprom is responsible for protecting gas pipelines and Rosneft for protecting oil pipelines, and $1 billion per year is invested on their security. The EU has developed the TACIS framework for the protection of transport networks in the CIS countries and Georgia. The EU should also cooperate more closely with Russia to implement measures to protect the integrity and maintenance of pipelines and

electricity grids. Moreover, European investment in infrastructure will be an important contribution for promoting the exchange of technologies and support European investment in the Russian energy sector.

Lastly, cooperation in the development of renewable sources will be an important starting point for increasing European investment in Russia and potentially decreasing the energy costs in the EU. This partnership could be mutually-beneficial. In fact, Russia could develop its own legislation based on the EU experience and could import from the EU technologies for the promotion of the renewable energy market in Russia, and this development could attract European companies and support the implementation of renewable sources. The possibility to create projects for the export of electricity produced from renewable resources from Russia to the EU would highlight their role as natural partners in the field and promote further commercial exchange between the parties in the future.