THE CONSEQUENCES OF TRADING NATURAL GAS WITH RUSSIA FOR A COMMON ENERGY POLICY

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ABSTRACT

The important role of Russia in satisfying European gas demand and the subsequent gas disruptions in 2006 and 2009 have scrutinized the role of Russia in developing a Common Energy Policy for the EU. Those skeptical of Russian influence have emphasized the threats to the internal market and the security of supply in constructing new pipeline infrastructure for the trade of gas. This research determines that the perceived threats to the internal market and the security of supply are unjustified. In addition, pragmatic economic interests have incentivized actors to oppose Nord Stream and South Stream.

Contents

List of abbreviations

BCM	Billion cubic metres of natural gas
CEE	Central and Eastern Europe
DG	Directorate General
DG COMP	Directorate General for Competition
DG ENERGY	Directorate General for Energy
EAP	Energy Action Plan
ECSC	European Coal and Steel Community
ECSEE	Energy Community of South Eastern Europe
EEA	European Economic Area
ENTSOG	European Network of Transmission System Operators for Gas
EU	European Union
EUR	Currency of the Eurozone
EURATOM	European Atomic Energy Community
GATT	General Agreement on Tariffs and Trade
HR	High Representative of the Union for Foreign Affairs and Security Policy
LNG	Liquefied Natural Gas
LTC	Long-Term Contracts
NEL	Nordeuropäische Erdgas Leitung
NRA	National Regulator Authorities
OPAL	Ostsee Pipeline Anbindungsleitung
SEA	Single European Act
TAP	Trans Adriatic Pipeline
TCM	Thousand Cubic Meter
TEP	Third Energy Package
TFEU	Treaty on the Functioning of the European Union
USA	United States of America
WTO	World Trade Organization

List of figures

Introduction

The European Commission published a Green Paper in 2006 proposing to develop a Common Energy Policy for the European Union (EU). Since this publication the concept of a Common Energy Policy has gained considerable importance on the political agenda. The Green Paper defined a Common Energy Policy by the objectives it had to achieve: (1) development of the internal market, (2) security of supply and (3) sustainability. This research will use the same definition in order to determine the influence of Russia on the development of a Common Energy Policy.

Russian gas accounts for the largest share of gas imports into the EU and is transported entirely using pipelines. The important role of Russia in satisfying European gas demand and the gas disruptions in 2006 and 2009 have scrutinized the role of Russia in the development of a Common Energy Policy for the EU. Subsequent criticism of Russian influence emphasized the threats to the internal market and the security of supply by developing new pipeline infrastructure.

To determine the influence of Russia on a Common Energy Policy the initiation of two pipeline projects are examined in this research: (1) Nord Stream, that transports Russian gas directly to Germany and (2) South Stream, that was meant to transport Russian gas directly to Southern Europe. The potential disruptive role of Nord Stream and South Stream should be put in the wider perspective of new energy infrastructure that by its very nature stands to benefit one actor more than the other

The research question is: *Will increased diversification of the infrastructure for the transportation of Russian gas stimulate or hinder the development of a Common Energy Policy?* The answers to the research question are to be derived from the following sub questions: *(1) What are the technical aspects of the trade in Russian gas? (2) How are these technical aspects organized on a political level? (3) What is the role of energy companies, national interests and prices?*

In order to answer the sub questions this research examines the factors that have a significant influence on the development of a Common Energy Policy and cluster them in three

successive categories: (1) technical, (2) governance and (3) internal market. The results of this research will determine if the perceived threats to the development of the internal market and security of supply are justified. This research does not determine a final verdict on the merits of both projects. Nor will this research determine the merits of a Common Energy Policy. Rather, this argumentation provides a rational explanation if both projects will stimulate or prevent the development of a Common Energy Policy

1. Common Energy Policy

1.1. Origins

The 1950s witnessed the establishment of two institutional frameworks to regulate cooperation between European countries in the field of energy. In 1951 Belgium, France, West Germany, Italy, the Netherlands and Luxembourg agreed on the establishment of the European Coal and Steel Community (ECSC). This organization provided an institutional framework for coal which constituted the primary energy source for consumption in the 1950s. In 1957 an institutional framework for nuclear energy was established. The European Atomic Energy Community (EURATOM) emerged in a time when nuclear energy was perceived to be the dominant energy of the future.

Regardless of the merits of both organizations the call for a more extensive energy policy for Europe was accompanied by the creation of institutions on other global issues. I.e.: the creation of the World Trade Organization (WTO) in 1995.[1] After the fall of the Soviet Union in the 1990's Dutch Prime Minister Ruud Lubbers proposed a European Energy Charter. This Energy Charter served to develop closer economic relations with post-communist Eastern Europe and to increase the interdependence of countries within Europe.[2] Moreover, the Energy Charter was thought to consolidate the position of Europe as a major importer of energy on the global market. A motivation that has proven to be key even more so today than in the 1990's.

A few years prior to the proposal of Lubbers, the European Commission proposed to include the policy field of energy in the treaty of the EU.[3] The European Commission proposed a 'Common Energy Policy' in the Single European Act (SEA). However, when the SEA was adopted in 1987 the member states had rejected the inclusion of a chapter on energy policy.

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[1] Before 1995 known as the General Agreements on Tariffs and Trade (GATT).

[2] Mayer, S. (2008). Path dependence and Commission activism in the evolution of the European Union's external energy policy. *Journal of International Relations and Development, 11*(3), 255.

[3] Natorski, M., & Surrallés, A. H. (2008). Securitizing moves to nowhere? The framing of the European Union's energy policy. *Journal of Contemporary European Research, 4*(2), 84.

Renewed interest in the topic of energy security inspired efforts by the European Commission to increase competition and efficiency in the European market for energy. Liberalization was the mechanism chosen to reform the European energy sector. In practice, liberalization was initiated by the European Commission using legislation in the field of energy at three different stages. At present these legislative *packages* are known as the First (1998), Second (2003) and Third Energy Package (2007).

The First Energy Package marks the start of a liberalization process of the energy markets in the EU. Two directives concerning common rules of the internal market in electricity and in gas provided harmonization in their respective energy market.[4] The Second Energy Package included the unbundling of the infrastructure of gas and electricity from the production utilities. A measure that was meant to increase liberalization and competition but which was strongly opposed in particular by Germany and France. The package was designed to enable consumers to choose their own energy suppliers in an open market. In practice this competitive market proved to be only theory. Consequently, the Second Energy Package was not viewed as a success.

Successively, the EU sought to extend the development of the internal energy market to countries on the eastern border. In 2005 the EU signed a treaty with the countries of South Eastern Europe to extend the internal market to these countries outside the EU.[5] The Energy Community of South Eastern Europe (ECSEE) was established to implement the accumulated legislation on security of supply and energy efficiency.

The lack of success of the Second Energy Package prompted an inquiry by Directorate General for Competition (DG COMP) of the European Commission on the effectiveness of the legislation.[6] The results of this inquiry concluded that the mechanisms to increase competition included in the Second Energy Package fell short of the intended goals.

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[4] For electricity: Directive 96/92/European Commission concerning common rules of the internal market in electricity. For gas: Directive 98/30/European Commission concerning common rules of the internal market in natural gas.

[5] Umbach, F. (2010). Global energy security and the implications for the EU. *Energy Policy, 38*(3), 1237.

[6] The Commission is divided into several departments. The departments are known as Directorates-General (DGs) who focus on a specific policy field (i.e.: competition, energy or trade).

On January 1, 2006 the Russian energy company Gazprom limited the supply of gas to Ukraine following disputes on the price and storage of gas which resulted in energy shortages for member states that were dependent on the transit of gas through Ukraine.

Two months later in 2006 the European Commission proposed a Green Paper titled ‘A European strategy for sustainable, competitive and secure energy’. The Green Paper was an important step in the development of a common European energy policy. The concept of a Common Energy Policy was defined by the European Commission through the three objectives it was set out to achieve: (1) sustainability, by promoting renewable energy and energy efficiency; (2) competitiveness, by improving the interconnectivity of the European energy infrastructure and successively developing an internal market for energy; and (3) security of supply, by coordinating European supply and demand in the global market. The fact that the objectives were formulated in a general form helped rally the support for the concept of a common energy policy. These objectives could be interpreted in different ways because the actors that referenced to them had different priorities. I.e. the security of supply of Russian gas was interpreted differently by politicians in Poland than for business executives in Germany.

1.2. Third Energy Package

In order to propel the development of the internal market as being one of the objectives of a Common Energy Policy the European Commission proposed a Third Energy Package in 2007 which addressed the inefficiencies that were examined in the implementation of the Second Energy Package.

In 2006 coinciding with the proposal for a Third Energy Package and the Russia-Ukraine gas dispute the topic of energy security gained prominence on the political agenda. The fear arose that energy would be used as a political instrument. This fear was mainly present in the new member states in the Baltic countries of Eastern Europe. Thus Poland, Estonia, Latvia and Lithuania lobbied hard to raise awareness for the issue of energy dependence as they perceived themselves being vulnerable to supply disruptions from Russia. A Common Energy Policy would integrate them in the European energy grid and limit their dependency on Russia.

Integration of these countries proved challenging because gas infrastructure is not always profitable in Europe. In other words, forces of liberalization have limited incentive in an open market for investing in this infrastructure. However, the European Parliament emphasized that the EU should help finance these infrastructural projects without an attractive payback in an effort to promote the development of the internal market and to increase the security of supply.

In 2007 the 27 member states of the European Council emphasized the importance of developing a Common Energy Policy.[7] A single, competitive gas and electricity market comprised the first developmental stages in doing so.[8] The Lisbon Treaty was signed in December 2007 and included the most extensive article on energy and the distribution of competences thus far.[9] For primary law to include a chapter on energy emphasized the growing

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[7] Noël, P. (2009). A Market between us: reducing the political cost of Europe's dependence on Russian gas. *Electricity Policy Research Group Working Paper, 916.* University of Cambridge, 22; Noel refers to this document to support this claim: Council of the European Union, "Brussels European Council 8/9 March 2007. Presidency Conclusions", 7224/1/07; REV 1, CONCL 1, 2 May 2007, 16.

[8] Umbach, F. (2010). Global energy security, 1234.

[9] TFEU Art. 194; Braun, J.F. (2011) 'EU Energy Policy under the Treaty of Lisbon Rules: Between a New Policy and Business as Usual'. *Common Energy Policy S/EPIN Working Paper 31*, 2.

importance of this subject. The treaty transposed the objectives of the Green Paper into aims for a European energy policy: (1) ensure the functioning of the internal market for energy, (2) ensure security of energy supply in the Union, (3) promote energy efficiency and sustainability; and (4) promote the interconnection of energy networks.[10] The second paragraph emphasizes how these four aims will not affect the right of member states to determine on a national level: (1) conditions for exploiting its energy resources, (2) its choice between different energy sources; and (3) the general structure of its energy supply.[11] In practice this implies that national governments and political bodies of the EU have shared competences in the policy area of the internal market for energy. However, the second paragraph which emphasizes the exempted national competences concerns factors of external energy policy.

In April 2009 Dmitry Medvedev, as President of Russia, sent a letter to the European Commission in which he proposed non-discriminatory access to energy markets as an alternative to the Energy Charter. The proposal was formally ignored and three months later the European Parliament and the European Council adopted the Third Energy Package that was proposed by the European Commission.

The Third Energy Package included the most significant reforms of all three packages and consequently the most controversial.[12] Reforms consisted of ownership unbundling to separate the infrastructure for the transportation of gas from the production utilities. In other words, gas pipelines could no longer be the property of the same company that supplied or sold the gas. This would enable the achievement of the objective of the creation of an internal market. Ownership unbundling proved to be a controversial proposal because it affected the traditional structure of a market where national energy companies often enjoyed a natural monopoly. Moreover, the Third Energy Package established a new institutional framework to coordinate the national regulatory authorities (NRA's). Another reform was concerned with both the internal market and security of supply by (3) establishing of a European Network of Transmission System Operators for Gas (ENTSOG). ENTSOG was to be responsible for the development of

[10] TFEU Art. 194 (1).

[11] TFEU Art. 194 (2).

[12] The Third Energy Package included two Directives and three Regulations: Directive 2009/72/EC; Directive 2009/73/EC; Regulation (EC) No 714/2009; Regulation (EC) No 715/2009; Regulation (EC) No 713/2009.

the cross-border infrastructure of the internal market for gas but also conducted the first stress test in 2014 to determine the vulnerability of member states as a result of future gas disruptions.

Efforts to expand this supranational oversight followed the adaptation of the Third Energy Package. Günter Oettinger, as Commissioner for Energy, became the voice of shifting competences in the field of energy towards the European Commission. The proposal of former Polish Prime Minister and current President of the European Council Donald Tusk to involve the European Commission in all bilateral deals was given the first priority by Oettinger. However, he noted disappointedly that this proposal would not comply with rules set out by the WTO and those in the Lisbon Treaty.[13] Furthermore, he urged member states to implement the legislation set out in the Third Energy Package by equating these efforts with challenges set out by the Green Paper: security of supply, increased competition and sustainability.[14] In order to substantiate the importance of these goals emphasis was placed on the principle of solidarity set out in the Lisbon Treaty.[15] Referring to the Lisbon Treaty to create legitimacy for his ambitions. This culminated in 2012 when the European Commission established an information exchange mechanism to increase transparency on the bilateral deals of member states with third parties outside the EU.

The Third Energy Package consists of two Directives and three Regulations that are primarily concerned with the creation of the internal market. The development of the internal market is also one of the objectives of a Common Energy Policy. However, the other three objectives of a Common Energy Policy: security of supply, sustainability and international representation are often pursued by coupling them to the objective of the internal market. Efforts to achieve the creation of the internal market were unavoidably influencing the existing market situation and thus likely to be considered controversial by a share of the existing market actors. Consequently, it would be unreasonable to conclude that the actors that promoted the

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[13] Oliver, C., (2014, July 9). EU energy market: Pipe dream. *Financial Times*; Dixon, H. (2014, September 7). A Stress Test for E.U. Energy Supplies. *New York Times*.

[14] European Commission (2010). Benchmarking Report: correct implementation of EU energy law and infrastructure investment top priority. *Press Release*.

[15] Neuman, M. (2010). EU–Russian Energy Relations after the 2004/2007 EU Enlargement: An EU Perspective. *Journal of Contemporary European Studies, 18*(3), 348.

development of a Common Energy Policy all pursuit the same objective. Even when supporting a European approach on energy the interpretation of the objectives varies and actors are able to use the objective for the internal market to promote their interests in the other objectives of security of supply or sustainability.

This research uses the same definition as the Green Paper of 2006 in which a Common Energy Policy was defined by the objectives it is meant to achieve: (1) a functioning internal market, (2) security of supply, (3) sustainability, and (4) the ability of the EU and the member states to speak with a single voice on external energy matters.

2. Technical

This chapter examines the technical aspects of the pipeline infrastructure for the transportation of gas in the wider context of energy commodities. These aspects are divided in three successive categories: (1) availability, (2) infrastructure and (3) consumption. This format provides the opportunity to evaluate the current status quo of energy in Europe. In particular the role of the pipeline infrastructure for the transport of Russian gas to the EU.

2.1. Availability

2.1.1. World

Gas takes on a specific role in any energy policy due to the nature of this commodity. Thus the value chain, which includes all the elements that compromise the process from the production to the consumption of a commodity, is different for gas in comparison to other types of fuel that are used to produce energy.

The properties of gas are translated into a wide variety in the modes of transport. Gas is often more expensive to transport over long distances than other energy commodities. Because of the physical properties of gas the value chain for the trade of gas is characterized by: long distance, but limited to a few thousand kilometers; a changing demand pattern for seasons and daytime; and volume risk, the pipelines need certain pressure to be able to operate. While oil is traded on a global scale using different modes of transport, natural gas was historically traded on a regional scale. Consequently the trade in natural gas was and is limited in scope. Transportation of gas from a producer to a consumer was done using pipelines which invoke bilateral deals between the supply and demand sides.[16] I.e. long term investments and volume risks that lead to the need for security of demand and security of supply between two or more actors. The costs of transporting gas over longer distances explains why significant regional

[16] Johnson, C., & Derrick, M. (2012). A Splintered Heartland: Russia, Europe, and the Geopolitics of Networked Energy Infrastructure. *Geopolitics, 17*(3), 483.

differences in the prices of gas remain even if the trade of gas has expanded beyond the region from which it originated. In comparison to gas it is less expensive to trade oil on a global scale which increases global competition and reduces price differences within the market.

In the past decade the transportation of natural gas using ships has become more accustomed but what is needed for natural gas to be transported using ships is to process the commodity in liquid form. Liquefied natural gas (LNG) requires significant technical know-how and facilities that are not available to all countries and companies. The physical requirements for processing and transport make it challenging for LNG to compete with pipeline gas.[17] However, in the past decade technological developments have decreased the costs of LNG, combined with volatile oil prices this expanded the share of LNG in the market.

2.1.2. EU28

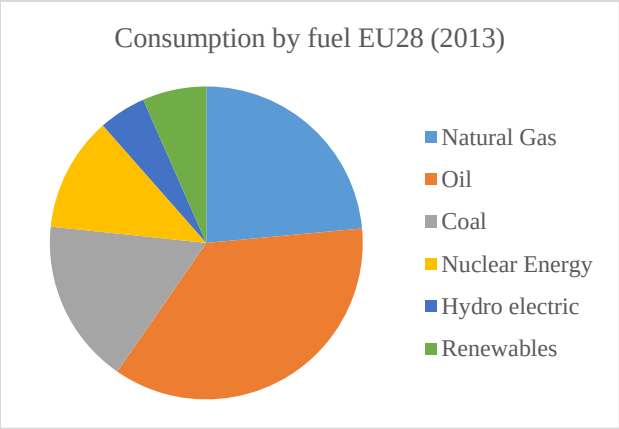

Figure 1. Consumption by fuel. Source: BP (2014) Statistical Review

In 2013 the EU imported 53 % of the total energy it consumed. For natural gas the share of imports (66%) in total consumption was even higher.[18] This high share of imports remained in spite of a consistent decrease in the demand for gas which can be partially attributed to the decrease in domestic production. This high share of imports in total energy consumption makes the EU the largest importer of natural gas in the world.

[17] Schmidt-Felzmann, A. (2011a). EU Member States, 576.

[18] BP (2014). *Statistical Year Review: History and 2014*; European Commission (2014). *European Energy Security Strategy*. COM(2014) 330 final; The EU has a high share of imports in the consumption of other fuels as well: oil (90%), solid fuels (42%) and nuclear fuel (40%).

Gas imported into the EU originated from Russia (32%), Norway (31.3%), Algeria (13.5%), Qatar (8.4%), Nigeria (3.6%) and Libya (1.9%).[19] In addition to being the largest supplier of gas, Russia is home to the largest proven reserves in the world.[20] The logic of this reasoning is amplified by the fact that proven reserves are only those deposits of natural gas that can be recovered under current economic and technical conditions. Thus changes in the price of other energy commodities influences these conditions and changes the amount of proven reserves available. Nevertheless figure 2 reveals that Russia has seen its share of the European market decline over the past decade while the market share of Qatar, which consists entirely of LNG, increased.

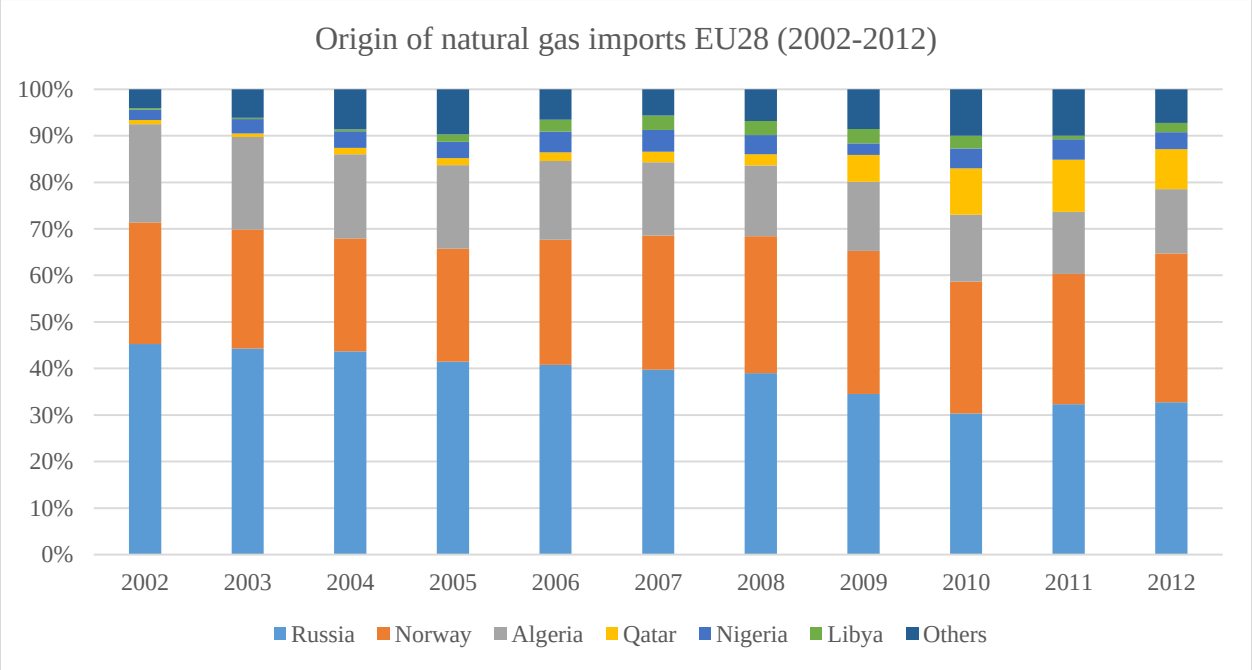

Figure 2. Origin of natural gas imports for the EU28. Source: Eurostat (2014)

[19] Eurostat (online data codes: nrg_122a, nrg_123a and nrg_124a).

[20] "Proved reserves of natural gas – Generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions." – BP (2014). *Statistical Year Review*, 20.

2.2. Infrastructure

The infrastructure for the transportation of natural gas is a vital part of the development of the internal market. A lack of infrastructure hinders the development of a Common Energy Policy of which the internal market is the primary objective. To determine the influence of the infrastructure for the transportation of Russian gas in the development of a Common Energy Policy this chapter will evaluate first the existing infrastructure and second the infrastructure that is lacking.

The previous chapter explained that the trade of gas is limited by geographic proximity. Storage of natural gas, more often than not, is unfeasible from economic and technological

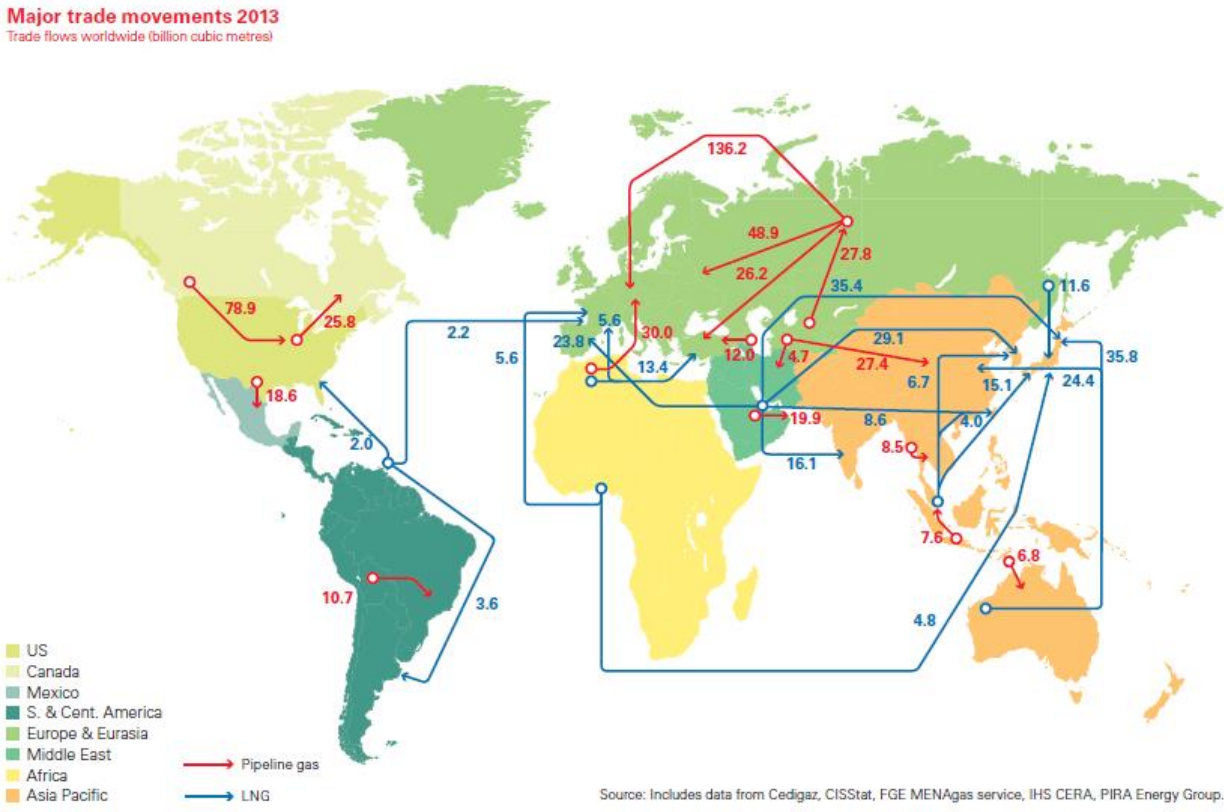

Figure 3. Major trade movements of natural gas using pipelines and LNG in 2013. Source: BP (2014). *Statistical Year Review*, 29.

viewpoint.[21] Moreover, the availability of LNG-terminals is limited to coastal member states in the EU. The technical and financial properties of LNG has ensured the concentration of the largest capacity for processing LNG imports in the United Kingdom and in Spain.

2.2.1. Pipelines

The entire transport of gas from Russia to the EU flows through pipelines. Russia also exports LNG from the Sakhalin II terminal which is located in the easternmost part of the Eurasian continent but the gas is not exported to the EU. Figure 4 illustrates a simplified representation of the most important pipelines from geographical north to south: Nord Stream, with OPAL and NEL as the onshore extensions; Yamal; Soyuz[22]; South Stream, and; Blue Stream.

The construction of Nord Stream finished in 2012. The project provides a direct connection between Russia and Germany through the Baltic Sea with a maximum capacity of 55 bcm.

The construction of Yamal started in 1992. The pipeline infrastructure was constructed from Russia through Belarus to Poland and Germany with a maximum capacity of 33 bcm. In 1997 the first gas was transported through the Yamal pipeline from Western Siberia.

Soyuz was constructed in the 1960s and increased capacity in the following decades. In 2014 the gas pipelines through Ukraine had a maximum capacity of 190 bcm. The gas that transited through Ukraine was destined for Austria, Hungary, Bulgaria, former Yugoslavia, Greece and Turkey but most importantly Germany and Italy.

Figure 5 and 6 illustrate the proposed route for South Stream prior to the cancellation of the project in 2014. The intention was to construct the project from Russia through the Black Sea to Bulgaria and extended onshore to Serbia, Slovenia, Hungary and Austria with a maximum capacity of 63 bcm.

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[21] Schmidt-Felzmann, A. (2011a). EU Member States, 576.

[22] The term ‘Soyuz’ will be used in this research to define all the pipelines that transit through Ukraine. Two of which are most notable: Soyuz and Brotherhood.

Figure 4. The main Russian gas pipelines to Europe. Source: Samuel Bailey (licensed by Creative Commons) via Wikimedia Commons.[23]

Despite increased tensions and the revived gas disputes between Russia and Ukraine, Soyuz still performs an essential role in the transport of gas to the EU. South Stream was

[23] This illustration is a simplified representation of the most important pipelines.

intended to increase the security of supply by diverting the transport of Russian gas away from Ukraine. Construction of South Streams fourth pipeline was intended to finish in 2020 and would have rendered all gas pipelines through Ukraine superfluous when only the capacity would have been taken into consideration.[24] However, in December 2014 Russian President Vladimir Putin reported that the development and construction of South Stream would be cancelled by stating that the project would not be feasible when the EU continued to obstruct the project by applying legislation from the Third Energy Package which would demand Gazprom to share the capacity of South Stream with a third party. The cancellation of South Stream coincided with sanctions against Russia and with a significant decrease in the price of oil on the global market. Both aspects have led the Russian economy in a downfall which could have provided compelling reasons to cancel the expensive project. In the years prior to 2014 the European Commission increased pressure on participating countries in the project, including Russia, to apply to the requirements of the Third Energy Package to South Stream. While the European Commission had the ability to exempt South Stream from these requirements the probability of the European Commission doing so was diminished by deteriorating relations during the tensions in Ukraine in 2013 and 2014. Even prior to the escalation of tensions the overall tendency in the EU was to diversify the supply of gas away from Russian due to the interruptions in 2006 and 2009.

Nabucco was the practical application of this tendency towards diversification. The EU backed this alternative non-Russian pipeline with the intention of diversifying the sources of gas away from Russia. Nabucco was intended to transport gas from Central Asia to the EU. In reaction, Gazprom tried to participate in the construction of Nabucco. When this effort failed Russia proposed the development of South Stream following the same onshore route.[25] However, Nabucco was considered a failure even before the cancellation of South Stream in 2014 because the project did not find enough suppliers whilst South Stream had already started construction. However, the cancellation of South Stream has increased chances that the interest for Nabucco will be renewed.

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[24] Pirani, S., Henderson, J., Honoré, A., Rogers, H., & Yafimava, K. (2014). *What the Ukraine crisis means for gas markets*. Oxford Institute for Energy Studies (OIES), 13.

[25] Smith Stegen, K. (2011). Deconstructing the "energy weapon": Russia's threat to Europe as case study. *Energy Policy, 39*(10), 6508.

Figure 5. Nabucco and South Stream. Source: Samuel Bailey (licensed by Creative Commons) via Wikimedia Commons.

The Trans-Anatolian Pipeline (TANAP) and its extension dubbed the Trans-Adriatic pipeline (TAP) are the most viable alternatives for the EU to develop the Southern Corridor after the failure of both Nabucco and South Stream. The pipeline is a cooperation between Turkey and Azerbaijan with the capacity of 16 bcm of which 10 bcm would be transported to the EU. While announcing the cancellation of South Stream Putin also proposed plans for a Russian pipeline to Turkey with a capacity of 63 bcm but detailed plans for this initiative are not made public.

2.2.2. LNG

Most of the capacity to import LNG into the EU is concentrated around the coastal countries of Western-Europe: the United Kingdom (9.3 bcm), Spain (14.9 bcm), France (8.7 bcm), Belgium (3.2 bcm) and Italy (5.5 bcm). Eastern Europe has limited LNG terminals to import gas overseas. Lithuania has finished the construction of a LNG-terminal and a multitude of terminals are being developed along the coast of the Baltic countries and Southern Europe. In spite of not transporting LNG to the EU Russia is still able to influence the construction of LNG terminals in the EU. The increasing popularity of LNG was curbed in 2011 by renewed negotiations with

Gazprom on gas prices for Western Europe. Gazprom decided to lower the price of gas and thereby decreasing the demand for non-Russian LNG. Subsequently, LNG terminals already in use are using but a fraction of their capacity thereby increasing the investment risks for new terminals in Eastern Europe. This is hindering for the security of supply and the internal market in Eastern Europe since LNG may provide an alternative or competition to Gazprom when gas prices increase.[26] The sudden drop in the price of LNG was remarkable considering the increasing demand for LNG in Japan following the Fukushima disaster. However, the demand in North America dwindled as a result of increased domestic production of shale and oil. Following the oil crisis in the 1970s the USA banned the export of these commodities. The increased production and the ban on export rendered cheap domestic production for consumers while demand for LNG declined. Consequently, lowering the price of LNG on the world market and enabling it to compete with Russian gas in Western Europe.

2.2.3. Interconnectors

The infrastructure of pipelines in Europe is shaped following bilateral relations between producers and consumers.[27] This provides challenges for developing an internal market and increasing the security of supply. The required infrastructure to reach both objectives is lacking in some places and distributed unequally throughout the continent.

Interconnectors and pipelines are constructed and planned to enable a more efficient functioning of the internal market.[28] In other words, without additional interconnectors gas cannot flow from those in possession to potential traders and consumers elsewhere in the EU. The cross-border transmission is also costly which divided national markets in the past. This is illustrated by the fact that between 2007, when the Third Energy Package was ratified, and 2010

[26] Schmidt-Felzmann, A. (2011). EU Member States, 577.

[27] Goldthau, A. (2013). *The politics of natural gas development in the European Union*, 11.

[28] Kirchner, E., (2010). European Energy Security, 868.

the increase of cross-border flows of electricity is negligible.[29] Moreover, the lack of infrastructure prevents vulnerable member states from importing the gas from other sources and thus hindering both the internal market and the security of supply.

As a consequence, some member states in the Baltic and in South Eastern Europe are not connected to gas networks in the rest of the EU.[30] Thus, energy islands are created which segment the European energy market. Concerning disruptions from Russia, the lack of infrastructure also prevents these regions from importing LNG because the necessary facilities are located in coastal countries west of the vulnerable countries in CEE.[31]

The development and construction of some of these interconnectors is not profitable for actors in a liberalized market. The markets concerned are small in comparison with the costs and risks involved. The question arises in the public debate if the EU should finance these infrastructural endeavors that are vital but not profitable.[32] Investments of the EU could reinforce the mechanisms of the free market that are pursued through the installation of additional interconnectors and pipelines. Energy companies are reluctant to finance the necessary infrastructure as long as the legislation for a single market is not implemented.[33] The EU has chosen to subsidize or completely finance interconnectors in some areas since the adaptation of the Third Energy Package. This operation is costly and at least 17 billion euros is needed to complete it.[34] Moreover, the European Commission has obliged operators to construct reverse-flow capabilities.[35] In 2009 25% of all interconnectors had the capability to reverse the transport

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[29] Nowak, B. (2010). Energy Market of the European Union: Common or Segmented? *The Electricity Journal, 23*(10), 30.

[30] Aalto, P., & Korkmaz Temel, D. (2014). European Energy Security: Natural Gas and the Integration Process. *Journal of Common Market Studies, 52*(4), 763; Even with construction of planned interconnectors Finland remains vulnerable to gas disruptions, see: European Commission (2014). *Quarterly Report on European Gas Markets, 7*(3), 12.

[31] Noël, P. (2009). A Market between us, 20.

[32] Barysch, K. (2011). *Green, Safe, Cheap: Where Next for EU Energy Policy?* Centre for European Reform, 21.

[33] Nowak, B. (2010). Energy Market, 30; Dreyer, I. (2014). *After Ukraine: Enhancing Europe's Gas Security*. Center for Security Studies (CSS) ETH Zürch, 3.

[34] Using the exchange rate between the US Dollar and the Euro on the date of publishing: Dixon, H. (2014, September 7). A Stress Test for E.U. Energy Supplies. *New York Times*.

[35] *Reverse flow* is a term used to describe gas flowing in opposite direction of traditional trade, Traditionally gas was transported from Eastern Europe to Western Europe. Reverse flow enables member states in the west to transport

of gas. The construction of interconnectors has peaked in 2014 with 40 percent of all cross-border interconnectors in the EU having the capability to reverse the flow of gas.[36] The new interconnectors enabled the transport of gas from Germany to Poland, from Greece to Bulgaria and from Hungary to Romania thus enabling the bi-directional flow of gas in contrast to the conventional flow of gas from east to west.

Interconnectors in Central and South Eastern Europe will be able to transport gas from west to east and from north to south.[37] Subsequently, it is no longer impossible to resell Russian gas within Europe where contractual obligation allow for it.[38] The implications of these changes was illustrated in 2012 when Ukraine received gas from Poland, Hungary and Slovakia. Russia expressed vocal and physical opposition to actors that resell their gas in the European market and has been partially successful in limiting these efforts. I.e.: in 2014 Russia reduced the flow of gas to Poland and Hungary which rendered them unable to continue trading gas with Ukraine.[39] It is important to emphasize that the liquidity of trading gas in CEE is still considerably low compared to Western Europe. The liquidity of gas is often measured by the churn rate which is defined as the number of times gas is traded before being delivered. In Western Europe the churn rate is three times higher than for the beneficiaries of gas that is transported through Ukraine: Italy, Austria and the countries in South Eastern Europe.[40] However, the rapid construction of interconnectors and reselling of gas to Ukraine will improve future liquidity in CEE.

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gas to the east but could also enable transportation from north to south. On the legislation that obliged market actors to implement reverse-flow capabilities: Regulation no. 347/2013.

[36] European Commission (2014). *Quarterly Report 7*(3), 8.

[37] Pirani, S. (2014). *What the Ukraine crisis means for gas markets*, 9.

[38] Subject of recent tensions between EU Energy Commissioner Gunter Oettinger and Russian President Vladimir Putin. See: The Moscow Times (2014, July 3). EU claims right to sell Russian gas back to Ukraine. *The Moscow Times.*

[39] Johnson K. (2014, September 26). Let's make a deal. *Foreign Policy*.

[40] Oliver, C., (2014, July 9). EU energy market: Pipe dream. *Financial Times*.

2.2.4. Nord Stream

Increased integration and connectivity of the European energy grid is hindered by a lack of interconnectors. Subsequently blocking the development of the internal market. This status quo has strong historical and technical causes. Natural gas has been transported for decades from geographical east to west because Russia, or the former Soviet Union, is neighboring the EU and home to the largest proven reserves in the world.[41]

Cooperation with Russia in the construction of infrastructure for the transport of gas did not hinder the construction of the interconnectors. The capacity of Nord Stream and the construction of LNG terminals has stimulated integration of the internal market. Firstly, this stimulation was provided indirectly and presumably without purpose: in reaction to the gas dispute of 2009 the construction and development of interconnectors increased following regulations adopted by the European Parliament and the Council that would prioritize them. Secondly, the construction of Nord Stream did not consolidate the lack of infrastructure by circumventing Poland and the Baltic States and delivering gas directly to Germany. Rather, the EU is prioritized the construction of pipelines from Germany to Poland and, in their turn, from Poland to the Baltic States. The construction of additional interconnectors and upgrading existing interconnectors with reverse-flow capabilities provides Eastern Europe with alternative sources of gas such as LNG from Western Europe while continuing the flow of Russian gas to Western Europe.[42] These interconnectors have improved the competition and security of supply for the internal market. The construction of Nord Stream and additional interconnectors provided the opportunity to change the traditional flow route of gas. I.e. the transportation of gas originating from Nord Stream has been transported through the Gazella pipeline to the Czech Republic.[43] Likewise, gas was transported from the EU to Ukraine. South Stream would have penetrated the European market from a new entry point. This would have increased the security of supply and diversified

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[41] "Proved reserves of natural gas – Generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions." – BP (2014). *Statistical Year Review*, 20.

[42] Noël, P. (2009). A Market between us, 20.

[43] European Commission (2014). *Quarterly Report 7*(3), 9.

the infrastructure for the transport of Russian gas away from Ukraine, thereby reducing the impact of supply interruptions while increasing competition within the EU.

2.3. Consumption

This section determines if the development of Russian pipeline infrastructure for the transport of gas increased the dependency on Russia and if this infrastructure will hindered the diversification of both the sources and the types of fuel. In order to answer this question this section is divided in three successive categories: (1) energy mix, what is the share and consumption of gas for each member state; (2) dependency, where does this gas come from and what is the share of Russian gas in the energy mix; and (3) diversification, what is the influence of alternative fuels and alternative infrastructure for the transportation of Russian gas.

2.3.1. Energy Mix

The energy mix consists of all types of energy that a Member State consumes to meet demand. Figure 6 categorizes these commodities as: gas, oil, coal, nuclear energy, hydroelectric and renewables while exposing significant differences in the energy mix of the member states of the EU.

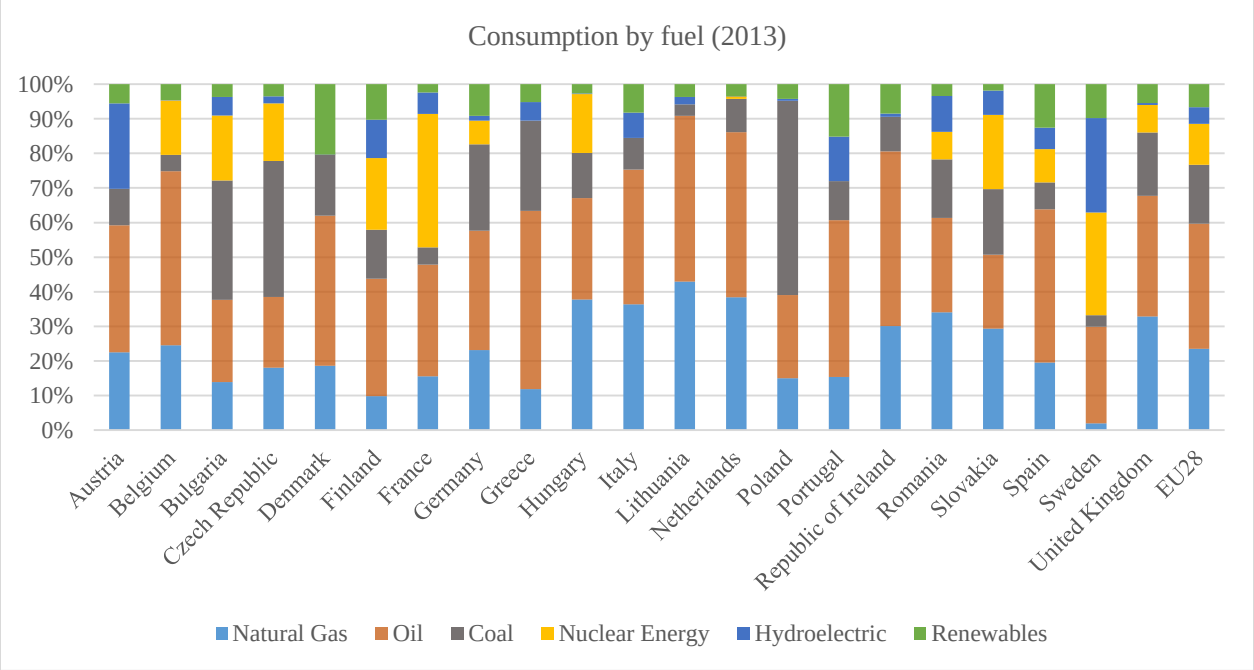

Figure 6. Consumption by fuel in EU member states. Source: BP (2014) Statistical Year Review.

2.3.2. Dependency

The import dependency on gas is determined by the share of gas that is not produced domestically in the EU as a whole. The import dependency increased since 2001 in all the member states except for Bulgaria, which already relied for 100 percent on imports, and in the Czech Republic.[44] Within the EU there are significant differences because half of all member states have an import dependency of 90 percent or above. Algeria, Norway, Qatar and Russia compromise the main suppliers of these imports. Some countries import their natural gas from multiple suppliers whilst other countries import their gas from one supplier, i.e. Russia.

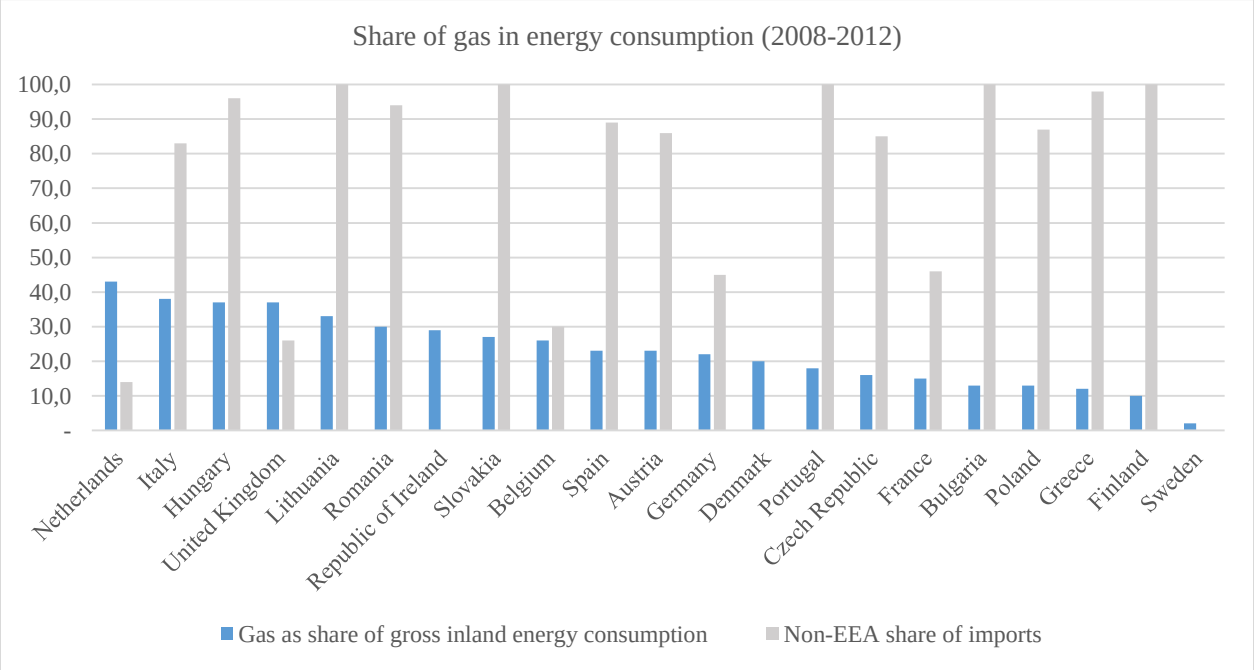

Figure 7. Share of gas in energy consumption. Source: European Commission (2014) European Economy – Member State's Energy Dependence.

To determine what the dependency on gas is for each member state we successively have to review if the gas originated from participating countries in the European Economic Area

[44] European Commission (2014). European Economy – Member State's Energy Dependence: An Indicator-Based Assessment, *Occasional Papers 196*, 6.

(EEA) or non-EEA countries.[45] Figure 7 illustrates the prominence of gas in the energy mix and the share that is imported from non-EEA countries.

Gas trade with Russia created the most important import dependence and is also the most controversial because of the gas disruptions in 2006 and 2009. The geographic proximity to Russia is an overall indicator for the dependency on Russian gas.

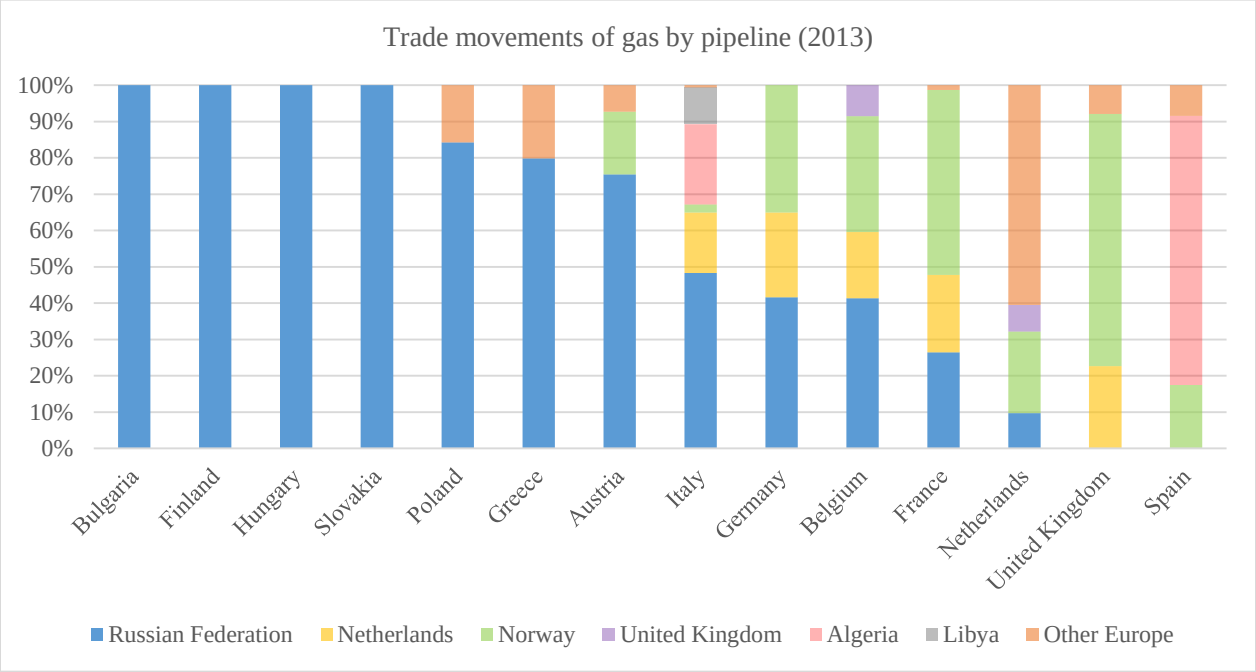

Figure 8. Trade movements by pipeline. The legend presents producing countries. Source: BP (2014) Statistical Year Review.

Inclusion in the former Soviet Union has shaped the energy mix and the import dependency of the member states in the Baltics and Eastern Europe.[46] This historic dependency and geographic proximity to Russia entails that gas compromises a significant share in their national energy mix. In detail this appears to be true for some member states such as Latvia, Lithuania and Hungary where the share of gas in the primary energy consumption is above the

[45] EEA consist of EU member states plus Iceland, Liechtenstein and Norway. It is important to focus on non-EEA countries since Norway has significantly increased the production of natural gas for the past decade but is generally regarded an equal partner and reliable supplier to the member states of the EU.

[46] Schmidt-Felzmann, A. (2011). EU Member States, 577.

EU average. However, countries such as Estonia and Bulgaria testify to the opposite.[47] Some academics tend to emphasize the significant growth of natural gas in the energy mix of the EU.[48] However, the picture is more nuanced for the past decade where half of all member states increased their share of natural gas whilst the other half has seen a decrease in the use of natural gas.[49] Further caution should be observed when acknowledging the high dependency of some member states. In popular argumentation emphasize is often put on the fact that multiple countries in Eastern Europe are dependent on Russia for 100 percent of their gas demand. Complete dependency cannot be overstated but it is necessary to examine this dependency in a wider perspective. Bulgaria is often used as the prime example of a high degree of dependency on Russia. However, natural gas makes up only 13 percent of Bulgaria's energy mix. A figure that is well below the EU average of 24 percent. The argument that gas is often used for generating electricity does not apply here. Only 5 percent of electricity in Bulgaria is generated using natural gas compared to a 23 percent average in the EU.[50]

The last decade a multitude of initiatives were proposed for the construction of new pipeline infrastructure for the transport of Russian gas. However, Nord Stream and South Stream were labeled the most controversial and the projects received extensive criticism in the academic and public debate. The main argument used by critics was that both projects would increase the high dependency on Russian gas.[51] However, this will prove deceptive when we consider the statistics on the importation of gas from non-EEA countries.[52] Starting in 2008 data on the volumes and share of non-EEA gas did not support claims of an increasing dependency on

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[47] European Commission (2014). European Economy, 6.

[48] Noël, P. (2009). A Market between us, 3.

[49] European Commission (2014). European Economy, 6.

[50] Using data from: BP (2014). *Statistical Year Review*; European Commission 2014 Energy Dependance; Belkin, P., Nichol, J., & Woehrel, S. (2013) *"Europe's Energy Security: Options and Challenges to Natural Gas Supply Diversification."*, CRS Report for US Congress.

[51] Among others: Mayer, S. (2008). Path dependence, 252; Kirchner, E. (2010). European Energy Security, 862; Goldthau, A. (2013). *The politics of natural gas development in the European Union*, 9.

[52] The European Economic Area (EEA) includes Norway but excludes the other major suppliers of gas to the EU: Russia, Qatar and Algeria. These three suppliers are consequently defined in this research as non-EEA countries for the supply of natural gas.

Russia.[53] Moreover, the data did not support claims of increasing dependency on gas from all the non-EEA countries combined. Between 2008 and 2012 the EU has reduced both the volume of imports and the share of imports from Russia.[54] It should be noted that following price cuts in 2012 due to the renegotiation with Western Europe the share of imports from Russia has increased again in 2013. This increase in demand for Russian gas was temporary when both consumption (-20%) and import of gas (9%) decreased again in 2014 compared to 2013.[55]

The declining dependency on imports is set to change because of a significant decrease (-40%) in the expected domestic production of natural gas. [56] The decline of domestic production in Norway, the Netherlands and the UK will not be replaced with alternative production of gas before 2020. More likely it will be replaced by the continuing increase in the share of renewable energy and the importation of LNG overseas.

This study will argue that the a potential increase in import dependence will not be incurred by Russia. Dependency on Russian gas is high but it is decreasing and is likely to continue to do so in the future even if more gas would be imported from outside the EU. There are three important reasons for arguing this: (1) dependency decreases due to increased energy efficiency; (2) the perception of Russia is increasingly negative which leads member states to look for alternatives to Russian gas whilst the conception of the EU in Russia is also deteriorating which leads to a shift of focus of Russia towards markets in Asia and; (3) the changing market structure for the trade of natural gas in the EU.[57]

Research by the European Commission, the International Energy Agency and the Oxford Institute for Energy Studies acknowledges that energy efficiency is the main factor for

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[53] European Commission (2014). European Economy.

[54] *Idem,* 16.

[55] European Commission (2014). *Quarterly Report 7*(3), 5-6.

[56] Dickel, R. (2014). *Reducing European Dependence*, 71.

[57] The argument (2) for the changing perception will be dealt with in the third chapter on Governance and the argument (3) of the changing market for gas will be dealt with in the final chapter on the Internal Market.

decreasing demand in natural gas and will continue to be so in the next two decades.[58] While these gains are generally made in Western Europe the potential of increased energy efficiency in Eastern Europe is far greater. In CEE countries the energy intensity is 2.5 times the average in the EU.[59] Union-wide environmental goals and technological development will safeguard a growing energy efficiency in CEE countries and this will have a considerable effect on the energy demand in the EU.

2.3.3. Diversification

Continuing from the previous arguments Nord Stream and South Stream would diversify the infrastructure for the transportation of gas but they would not diversify the sources of natural gas since both projects will transport Russian gas only. Moreover, South Stream would have prevented the development of alternative pipelines that would be able to divert the importation of gas away from Russia. The most viable rival to South Stream that would be able to do so was Nabucco. Nabucco was backed by both the USA and the EU but it did not receive the support of the largest member states such as Germany, France and Italy. The main reason for the failure of Nabucco was the lack of suppliers. Whilst the development of pipelines often starts upstream with the producers, the development of Nabucco was initiated downstream by European energy companies. Russia influenced the failure of Nabucco to some extent by consolidating its ties with potential suppliers in Central Asia.[60] Simultaneously with the development of Nabucco Russia increased the import of gas from Azerbaijan, Turkmenistan and Kazakhstan to subsequently resell the gas to the EU. Russia was able to convince these countries to do so by offering gas prices on par with gas prices in the EU. If this research would interpret the assertive policy of Russia as being more of a political than an economic move, as opponents of South Stream

[58] European Commission (2013). *Energy Trends to 2050*, 49l; IEA, Energy Efficiency Market Report 2014; OIES, Dickel, R., Hassanzadeh, E., Henderson, J., Honoré, A., El-Katiri, L., Pirani, S. & Yafimava, K. (2014). *Reducing European Dependence on Russian Gas*. OIES Paper NG92.

[59] Goldthau, A. (2013). *The politics of natural gas*, 23.

[60] Afifi, S. N., Hassan, M. G., & Zobaa, A. F. (2013). The Impacts of the Proposed Nabucco Gas Pipeline on EU Common Energy Policy. *Energy Sources, Part B: Economics, Planning, and Policy*, *8*(1), 23.

suggest, it would also entail that Nabucco would not have found enough suppliers even without the construction of South Stream because Russia would still have bought the gas as it did. Considering that the development of a pipeline without the corresponding gas to operate it would be undesirable.

Apart from these arguments, Nabucco is not essential to the development of a Common Energy Policy. Since 2006 the diversification of gas imports to the EU has increased and the import from non-EEA countries has reduced from 62 percent in 2006 to 60 percent in 2010 and 55 percent in 2012.[61] This development illustrated a surprising turning point considering that Nord Stream was developed and operated during the same period. Finally, Nord Stream and South Stream would not increase the dependency on Russian gas because they would not increase the total volume of gas imported from Russia but they would diversify the pipeline infrastructure through which the gas is exported to the EU. This is not only due to declining demand in the EU but also due to lack of production capacity on the Russian side. Goldthau has noted that it is highly questionable if Russia would be able to increase production even if European demand would require it to do so.[62] This is attributed mainly to the depletion of existing gas fields and a lack of investments in technology to recover the proven reserves from new gas fields. Furthermore, Russia is not buying the gas from Central Asia with the sole reason to hinder the development of Nabucco but it needs to do so because the gas enables Gazprom to meet Russian domestic demand. The sources of gas in Central Asia already constituted 8 percent of the total exports of Gazprom to the EU in 2006.[63]

[61] European Commission (2014). *European Economy*, 7.

[62] Goldthau, A. (2008). Rhetoric versus reality: Russian threats to European energy supply. *Energy Policy, 36*(2), 687.

[63] Noël, P. (2009). A Market between us, 7.

3. Governance

This chapter determines how technical aspects influence the governmental perspective of the value chain of natural gas. Three successive categories will be used to determine this influence: (1) institutional framework, what is the best institutional level to develop a Common Energy Policy; (2) legislative competences, covers the institutional level on which legislative competences are situated and how these competences shift between vertical levels of governance; (3) security of supply, how the objective of energy security is interpreted as an argument for policy choices by different actors and applied to Russia in particular. The three categories are based on political aspects that have hindered the development of a Common Energy Policy thus far: (1) a lacking supranational institutional framework for the development of a Common Energy Policy; (2) a lack of legislative competences limits the capacity of the European Commission to develop a Common Energy Policy, and; (3) the objective of security of supply is interpreted differently throughout by actors and is used by them to substantiate different priorities.

3.1. Institutional framework

3.1.1. Institutional level

The distribution of competences in the EU can best be summarized as a struggle between two opposite viewpoints. Reviewing this comparison is important because it reveals the position of actors in the debate. On one side, the proponents of the development of a Common Energy Policy on a supranational level. This level of governance would then oblige individual member states and their respective governments to oblige by legislation adopted by EU institutions. This side consists of certain DG's of the European Commission; lobbying firms operating on Union

level, and; member states in Central and Eastern Europe (CEE).[64] One of the most notable actors on this side is current President of the European Council Donald Tusk. The other side, the proponents of intergovernmentalism consist of: member states defending their national competences and national energy companies who want to protect their monopoly using intergovernmental cooperation. They promote the development of a Common Energy Policy along national or intergovernmental lines and consist of member states such as Italy and Germany and their national energy companies but the group also consists of actors in the European Council and European Parliament. This group is further strengthened by a considerable share of the member states who are less vocal in the debate.

Some politicians and scholars have argued that the dichotomy between supranational and intergovernmental constitutes a misrepresentation. In politics the German chancellor Angela Merkel has argued that the energy policy of the EU should be defined as a new Union method which is neither supranational nor is it intergovernmental but rather somewhere between these two levels of legislative competence. Braun acknowledged her definition in his article on energy competences under the Lisbon Treaty, arguing that while the EU is active in shaping the energy policies of the member states the national governments still retain essential rights.[65] By adopting the Third Energy Package the member states and the EU have shown that they are able to shape Europe's energy policy by close cooperation on sensitive subjects. However, analyzing the interests involved in the legislative decision-making process provides clear evidence of the underlying dichotomy between the European Commission and the national governments where the European Commission takes an assertive approach in influencing the development of a Common Energy Policy. The profound nature of this dichotomy is reinforced by the role of politics in the gas market because the European market is, in contrast to the USA, influenced to a far greater extent by regulations and politics than by price.

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[64] On the European Commission: Aalto, P. (2014). European Energy Security, 766; Natorski, M. (2008). Securitizing moves, 73; On lobbying firms: Becker, T., (2014, September 17) New Commission must take the reins from member states on energy policy. *EurActiv*; On Baltic States: Molis, A. (2011). Transforming the EU-Russia energy relations: the Baltic States' vision. *Lithuanian Foreign Policy Review,* (25), 80.

[65] Braun, J.F. (2011) 'EU Energy Policy', 8.

Energy is a horizontal policy issue. In other words, energy is part of a multitude of policy fields: i.e. foreign policy, competition and environmental policy. Since the Lisbon Treaty, energy took on a more vertical policy structure with the creation of DG Energy. An individual DG inside the European Commission with a specific focus on energy. The effectiveness of this institutional change remains subject to debate.[66] Nonetheless, it testifies to the process in which small steps are taken towards the development of a supranational institutional level for the development of a Common Energy Policy as seen in the development of the three legislative energy packages.

3.1.2. Framework

In 2010 Jerzy Buzek, in his role as President of the European Parliament, compared the development of a Common Energy Policy with the development of the ECSC, EURATOM and the Banking Union.[67] Doing so implies that a Common Energy Policy will need an supranational institutional framework to function.

While Tusk even proposed the creation of a supranational negotiating body that would overtake all future bilateral agreements with energy suppliers outside the Union, most actors in the debate do not tend to go that far.[68] Three institutional changes will be discussed: (1) National Regulatory Authorities (NRAs), (2) the ability of the EU to speak with one voice, and (3) a mechanism to exchange information between the European Commission and the Member States on bilateral deals.

(1) The creation of efficient NRA's has been vital in the debate on what institutional conditions are necessary to develop a Common Energy Policy.[69] However, the proposed solutions reveal the separation between two sides. The national regulators should remain under

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[66] *Idem,* 5.

[67] President of the European Parliament (2010). *Buzek and Delors Declaration on the Creation of a European Energy Community*. Press Release, 4 May.

[68] Oliver, C., (2014, July 9). EU energy market: Pipe dream. *Financial Times.*

[69] Nowak, B. (2010). Energy Market, 29-30.

national supervision or they should be reviewed, monitored and given a 'community objective'.[70] Member states do acknowledge a role for the EU on the organization and monitoring of national regulators. Since the adaptation of the Third Energy Package the member states have, through their representative in the European Council, agreed on a guiding directive to synchronize their national regulators and to create them were none existed.

(2) Since the adaptation of the Lisbon Treaty two positions have been created: the High Representative of the Union for Foreign Affairs and Security Policy (HR) and the President of the European Council.[71] Both of which are meant to enable the EU to speak with a common voice increasing and thereby visualizing the supranational character of the EU.

(3) The European Commission proposed that a body to monitor developments in the energy market was necessary to safeguard future investments in the sector.[72] In 2012 the European Parliament and the Council adopted the legislative decision to 'establish an information exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy'.[73] The decision obliges the member states to inform the European Commission on all existing and future bilateral agreements with third parties in the field of energy. Thus information on bilateral agreements with Russia should be shared with the European Commission which in turn shares the information with all the member states while regarding commercially sensitive information.

These three examples were initiated after the initiation of Nord Stream and at a time when the proposal for South Stream was relatively certain and are thus indicators that bilateral relations with Russia for the development of pipeline infrastructure have not prevented the adaptation of a multitude of supranational legislation for the development of the objectives of a Common Energy Policy: the internal market and the security of supply.

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[70] Different terms used by the European Commission to promote supranational authority on national regulators. See: European Commission (2006). *Prospects for the internal gas and electricity market*. COM(2006) 841 final, 14.

[71] Braun, J.F. (2011) 'EU Energy Policy', 8; Former Polish Prime Minister Donald Tusk and current President of the European Council is also a vocal prominent proponent of a CEP on a supranational level.

[72] European Commission (2006). *Prospects*, 18.

[73] Decision No 994/2012/EU of 22 October 2012.

3.2. Third Energy Package

The Third Energy Package, as a legislative package, is primarily concerned with the development of the internal market which is one of the objectives of a Common Energy Policy. Subordinate to this market orientated legislation are three other objectives defined in the Common Energy Policy. In particular the objective for the security of supply and to significant lesser degree the objectives of sustainability and the ability for the EU to speak with a single voice on the international stage. Initiatives to pursue the latter three objectives is often done by identifying and integrating them with the objective of the creation of the internal market. The objective of the internal market unavoidably counters the existing market situation and these initiatives are thus likely to be considered controversial by existing market actors.

3.2.1. Distribution of competences

Member states enjoy exclusive competences in the Lisbon Treaty on the composition of their energy mix and in determining the sources of energy. Subsequently, actors in the commercial, political and academic field conclude that this has prevented the development of a Common Energy Policy thus far.[74] I.e. Neuman notes that the EU articulates unclear strategies towards partners outside the EU in comparison to the Russia government which does not share these competences amongst different levels of government.[75] However, a more nuanced approach reveals that the distribution of these competences is not as static as the Lisbon Treaty might suggest. Rather, it is subject to constant struggle and reinterpretation.

Opposing supranational efforts are a multitude of national governments and the vested interests of energy companies operating within their respective national markets. The increased assertiveness of the European Commission was pronounced clearly after the proposal of the Third Energy Package. France, Germany and six other member states opposed the unbundling of

[74] I.e.: Commercial: Becker, T. (2014) New Commission; Academic: Neuman, M. (2010). EU–Russian Energy Relations, 347; Political: Barysch, K. (2011). *Green, Safe, Cheap,* 20.

[75] Neuman, M. (2010). EU–Russian Energy Relations, 345.

their energy structures by emphasizing the incompatibility with European law.[76] Both Phillip Roesler, in his role as Germany's Minister of Economy, and Angela Merkel, in her role as German Chancellor, warned that the EU was overstepping the mandate it was given.[77] Merkel even pointed out the possibility of member states taking back competences from Brussels.

Merkel was referring to the shift in competences towards the European Commission because the EU institution gained important informal competences in the field of energy. One example of informal competences is a poll that was initiated and coordinated by the European Commission itself. In this Eurobarometer, citizens of the EU were asked on which level they thought energy policy should best be legislated. The result confirmed their resolve when the largest share of respondents proposed that energy policy should be dealt with on a Union level.[78] Mayer mentions the shift in competences in his article by describing the process chronological as starting with informal rules and practices by the European Commission which were subsequently accepted as formal practices.[79] A second method in which the European Commission gained more competences was through drawing secondary legislation.[80] Using the right embedded in primary law to propose additional secondary legislation the European Commission drew directives and regulations which would limit the scope of the competences enjoyed by national governments.

3.2.2. Shifting competences

In the academic debate on energy policy some scholars try to determine how the European Commission was able to enjoy these competences in the field of energy. Natorski in his article in 2008, was in doubt if the successful shift in competences towards the European

[76] TFEU Art. 345: "This Treaty shall in no way prejudice the rules in Member States governing the system of property ownership".

[77] Thomas, P., (2013). Germany Warns EU not to Meddle in Its Energy Policy. *Reuters.*

[78] Eurobarometer (2011) *Europeans strongly in favour of energy solidarity.*

[79] Mayer, S. (2008). Path dependence, 270.

[80] Haghighi, S. S. (2008). Energy security and the division of competences between the European community and its member states. *European law journal*, *14*(4), 465.

Commission was due to efforts by the European Commission itself or should be considered a natural development.[81] It is important to review how the European Commission managed to do so as this will provide clarity to the role of infrastructure for gas in the process. Moreover, by reviewing this gradual shift this research will provide a decisive answer to the question Natorski posed because the shift in competences was due to the assertiveness of the European Commission operating under favorable circumstances. This research will argue that the European Commission increased her influence in shaping a potential Common Energy Policy in three ways: (1) by cooperation, (2) by legislation, and (3) by indirect pressure.

(1) Mayer argues that it is not a constant struggle between different levels of government but that the European Commission was using cooperation with the member states as a way to advance its own agenda.[82] The member states needed the expertise and networking capabilities of the European Commission. In turn the European Commission portrayed itself as unbiased on a national level and thereby provided the possibility to build coalitions.

(2) The European Commission used primary law extensively to expand her legislative power.[83] The first example is the annual benchmarking reports provided by the European Commission. In this report the European Commission reviews the progress of the implementation of secondary legislation by the member states. The second example is the methods in which the Third Energy Package forces member states to provide information to the European Commission on all future bilateral deals with suppliers outside the EU.[84] The final example is the use of different policy fields to influence the competences on energy.[85] I.e. the use of competition law to remove the barriers to an internal energy market.[86]

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[81] Natorski, M. (2008). Securitizing moves, 84.

[82] Mayer, S. (2008). Path dependence, 262, 271.

[83] Haghighi, S. S. (2008). Energy security, 464.

[84] Kropatcheva, E. (2014). He who has the pipeline calls the tune? Russia's energy power against the background of the shale "revolutions". *Energy Policy*, *66*, 5.

[85] Kirchner, E., (2010). European Energy Security, 869.

[86] Eikeland, P. O. (2008). *EU internal energy market policy: new dynamics in the Brussels policy game?*, 24; Presentation by Oliver Koch from the European Commission (DG ENERGY) at the Energy Community Forum in June 2014.

(3) Eikeland provides us with valuable insight in the indirect pressure the European Commission uses to influence non-state actor.[87] Under pressure from a high profile anti-trust investigation that was initiated by DG Competition against German E.ON. the energy company decided to adhere to the requirements of ownership unbundling. Consequently the European Commission ended the legal case that was opened before the European Court of Justice (ECJ). This form of indirect pressure is important because it realigns important incentives for member states to protect their own interests with those of the internal market of the EU. The European Commission managed to couple their demands for unbundling with their ability to initiate anti-trust investigations.

Nord Stream and South Stream testify for a shift towards supranational regulation as well. To date Nord Stream is not used to its full capacity of 55 bcm but instead it currently uses only half of that capacity. OPAL, one of the two main onshore extensions of Nord Stream is not used to full capacity because of legislation that would demand third party access. The project has not yet been granted permission by the European Commission for an exempted status. The existence of the possibility to uphold exemptions provides the EU with the ability to circumvent the limitations of the Third Energy Package in individual cases. In CEE countries, South Stream was developing to be the next cooperation between Gazprom and individual member states in constructing new transportation routes for Russian gas. Gazprom started the project with Italian Eni and successively concluded agreements with all the countries involved: Bulgaria, Serbia, Hungary, Greece, Slovenia, Austria and Croatia. In some cases, such as Bulgaria and Serbia, construction had started. To halt or delay this process the European Commission instigated investigations into those member states and concluded that South Stream violated the provisions in the Third Energy Package because it would oppose the rules on ownership unbundling and third party access. However, South Stream was under scrutiny before the violent tensions in Ukraine erupted but after the Russian presence in the Crimea the chances of South Stream being granted exempted status grew slimmer when Russia was faced with sanctions and increased opposition in Europe. Both cases illustrate that the European Commission enjoys sufficient competences to curb Russian influence in strategic infrastructure. Future decisions in the EU on

[87] *Idem*, 20-24.

Nord Stream, the cancellation of South Stream and the outcome of the legal case against Gazprom will provide a more thorough picture on the role of the European Commission in implementing the provisions from the Third Energy Package. This is not to say that the Third Energy Package is an anti-Russian legislative package. The legislative package is foremost concerned with the development of the internal market. Provisions on unbundling and third party access would also apply to the development of TAP to transport Azerbaijani gas to the EU. However it does illustrate how legislation for the development of the internal market is used by policymakers to oppose Russian assertiveness in the operation of pipeline infrastructure for gas.

3.3. Security of supply

The previous chapters examined which legislative measures the European Commission used to pursued a supranational Common Energy Policy and to develop different supranational mechanisms for promoting the internal market. This chapter determines how the topic of energy security, another objective of a Common Energy Policy, was used to create the favorable conditions for doing so. This examination is followed by an evaluation of the political stance of individual member states towards Russia and how this influences the perception of energy security. The economic interests of collaboration with Russia are interwoven with the political interests but will be discussed in chapter 4 on the Internal Market.

3.3.1. Energy security

Casier argued that Russia's dominance was increasingly used by the European Commission as a reason for the member states to hand over competences to the Union.[88] In doing so, Cassier followed Neuman who emphasized how politicians framed the topic of energy security. Neuman did so by citing Javier Solana, the former High Representative of Foreign and Security Policy. [89] Solana expressed his concern that Russia was more interested in exerting pressure on Europe than in facilitating increased production. An assertion that accused Russia of preferring political power over economic development.

A multitude of causes helped the European Commission to use energy security as a raison d'être: (1) assertiveness on behalf of Russia in the development of the Southern Corridor with the initiation of South Stream; (2) the handling of price disputes by both Ukraine and Russia that limited the supply of gas; and (3) the growing prominence of the topic of energy security since

[88] Casier, T. (2011a). Russia's Energy Leverage over the EU: Myth or Reality? *Perspectives on European Politics and Society, 12*(4), 493-508; Casier, T. (2011b). The Rise of Energy to the Top of the EU-Russia Agenda: From Interdependence to Dependence? *Geopolitics, 16*(3), 536-552.

[89] Neuman, M. (2010). EU–Russian Energy Relations, 343.

2000 as illustrated in figure 9.[90] These are examples that provided additional favorable circumstances to the European Commission. In other words, the European Commission managed to shape the political agenda by tying the role of energy with foreign and security policy which followed popular tendency during that period. Natorski notes, the framing of energy security also backfired on the European Commission when the member states became more certain in their resolve to safeguard their exclusive competences in this policy area.[91]

Figure 9. The share of the words *energy security* in all books in the database of Google Books. Source: Google NGRAM.

Kirchner argues that a Common Energy Policy does not exist because it lacks the same urgency that propelled previous institutional reforms.[92] In his article, Inotai complements this argument. History teaches us, he argues, that the concept of a Common Energy Policy originated in subsequent external necessities. Starting with the ECSC, then EURATOM, following in 1973 with the Oil Crisis and in the 1990's re-emerging with the growing awareness of environmental circumstances.[93] A strong influence on the future pleading of Tusk in comparing the

[90] Google Ngram Viewer enables the user to examine the prominence of a word in the database of Google Books. As of 2013 the database of Google Books includes over 30 million books. The data used in this research illustrates the share of the words 'energy security' in English literature. Needless to say this visualization leaves a lot of questions unanswered. Nonetheless it is a fact that the term 'energy security' has increased its share significantly in all literature published and scanned by Google Books. Figure 9 is meant to substantiate the argument that the topic of energy security has gained the attention of authors and thus the general public.

[91] Natorski, M. (2008). Securitizing moves, 84.

[92] Kirchner, E., (2010). European Energy Security, 868.

[93] Inotai, A. (2008). Towards a Common Energy Policy in the European Union. *Romanian Journal of European Affairs, 8*(5), 5.

development of a Common Energy Policy with older supranational institutions. Natorski illustrates the same picture for the start of the twenty-first century. By quoting academics in the debate, he raises the possibility that changes in the world energy system provide a 'window of opportunity' to develop both the internal and external dimensions of a Common Energy Policy.[94]

In opposition to Natorski our common sense might argue that the EU already traded natural gas with Russia during the Cold War. Tensions that fueled the Cold War would have also provided the external necessity needed to develop a Common Energy Policy. Consequently, it might be argued that the argument of external necessity does not play the vital role that it is given in the debate. The article of Bilgin can be used to explain why this reasoning is wrong. Bilgin reviews the trade of natural gas with Russia during the decades of the Cold War.[95] Despite the tensions the Soviet Union had a reputation of being a reliable supplier. This reputation was a consequence of Russia's uninterrupted supply of natural gas to Europe. Further confirmation of this trust is provided by the exponential growth in gas imports from Russia between 1967 and 1995. Even during the beginning of the new millennium, member states in Western Europe emphasized that Russia was a more reliable supplier than suppliers located in the Middle East, Latin America and Africa.[96]

3.3.2. Pipelines and perception

Amounting tensions and violence in the Ukraine for the past couple of years could provide another external necessity for the EU. It is reasonable to assume that energy disputes and political tensions between Ukraine and Russia have intensified the calls for a Common Energy Policy.[97] However, a more detailed review on the level of national governments proves that this

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[94] Natorski, M. (2008). Securitizing moves, 74.

[95] Bilgin, M. (2011). Energy security and Russia's gas strategy: The symbiotic relationship between the state and firms. *Communist and Post-Communist Studies, 44*(2), 120.

[96] Schmidt-Felzmann, A. (2011). EU Member States' Energy Relations with Russia: Conflicting Approaches to Securing Natural Gas Supplies. *Geopolitics,16*(3), 584.

[97] Mayer, S. (2008). Path dependence, 257; Molis, A. (2011). Transforming the EU-Russia, 77.

growing awareness of threats to the security of supply are perceived with different urgency throughout the EU.

In the political sphere Russia provided external necessity for proponents of a Common Energy Policy. However it did not provide this necessity for all actors involved. One important reason for this is the different perception of Russia amongst the member states. The perception of Russia within the EU has become the subject of a multitude of scientific articles.[98]

Estonia, Lithuania and Poland are the most vocal in expressing their concerns on the threats to the security of supply by trading natural gas with Russia.[99] Bulgaria, Hungary, Austria were among the member states who were most affected by previous disruptions.[100] However, they did not express the same level of concern and even collaborated with Russia in the development of South Stream. Germany and Italy do not express the same urgency because they have relatively good relations with Russia and because they are protected by a diversified market.[101] Furthermore, producing member states like the Netherlands and the United Kingdom are more concerned with the necessity created by their depleting domestic production and the subsequent development of their strategic position as hubs in the trade of gas.

For parties involved in the joint ventures of Nord Stream and South Stream bilateral cooperation created 'rapprochement through interdependence'.[102] Constructing these projects thus decreased a sense of urgency amongst the participants. This research argues that Nord Stream has increased the security of supply even if this was achieved at the expensive of the strategic position of Ukraine. Statistics on the usage of pipelines substantiate this argument. Before the construction of Nord Stream 80 percent of all gas was transported through Ukraine but ever since Nord Stream became operational this number has decreased to 50 percent in

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[98] Khrushcheva, O. (2011). The Creation of an Energy Security Society as a Way to Decrease Securitization Levels between the European Union and Russia in Energy Trade. *Journal of Contemporary European Research, 7*(2), 224; Kirchner, E., (2010). European Energy Security, 868; Neuman, M. (2010). EU–Russian Energy Relations, 346.

[99] Dickel, R. (2014). *Reducing European Dependence*, 69-70.

[100] Abdelal, R. (2013). *The profits of power: Commerce and realpolitik in Eurasia.* Review of International Political Economy, 20(3), 432.

[101] Kirchner, E., (2010). European Energy Security, 868.

[102] Derived from the German terminology: "*annäherung durch verflechtung*".

2012.[103] It is reasonable to assume that the volume transported through the Soyuz pipelines would have continued to fall in the future if the development of South Stream was completed. Member states in South Eastern Europe supported the pipeline project in cooperation with Russia's Gazprom although most of them did not agree with Russia's policy towards Ukraine.

Regarding Ukraine, Russia is thought to provide the external necessity for a supranational Common Energy Policy. However this urgency is limited due to the dwindling sense of urgency with the alternative that was offered by Nord Stream and South Stream whereby future gas disruptions will have only limited consequences for the EU. A stress test initiated by the European Commission in 2014 confirmed that potential future disruptions would have a smaller effect on the availability of gas throughout the EU and in particular the vulnerable member states in South Eastern Europe.[104]

[103] Pirani, S. (2014). *What the Ukraine crisis means for gas markets*, 8.

[104] European Commission (2014). *On the short term resilience of the European gas system*. (COM)2014 654 final, 27.

4. Internal market

In developing pipeline infrastructure for the transport of Russian gas political action often follows trade. Consequently, the energy companies cooperating with Russia have a significant impact on the energy policy of their respective governments. This chapter will examine the role of pipeline infrastructure for transportation of Russian gas in developing the internal market by examining three successive perspectives: (1) energy companies, (2) national interests and (3) prices.

4.1. Energy companies

4.1.1. National champion

'National champion' is a term applied to energy companies that do not solely seek to increase profit but who also seek to consolidate and advance the domestic interests of their host country. This is caused by the fact that energy is a commodity that besides economical use also entails great strategic and political consequences. These companies cooperate in joint ventures where two or more companies agree to pool their resources for a specific project. In this research a good example would be a joint venture for the development of a pipeline for natural gas.

National champions often have a strong domestic base where they enjoy the support of their respective national government. Because of their unique position as a natural monopoly they can prevent competition in their respective market. In academic and political literature on the subject the reasoning behind this argument is manifold: (1) there is a lack of competition because a small number of companies have a monopoly or oligarchy;[105] (2) there is a lack of incentive to innovate;[106] (3) new companies cannot compete with existing national champions because they lack access to infrastructure and information;[107] (4) governments control

[105] Inotai, A. (2008). Towards a Common Energy Policy, 21.

[106] Nowak, B. (2010). Energy Market, 30.

[107] *Idem*, 29.

these national champions by regulations and state aid;[108] and (5) as a consequence bilateral deals are closed with suppliers outside the EU without regard of the interests of other member states.[109]. It is therefore that national champions are often viewed in opposition to liberalization.

The German energy companies RWE and E.ON, Italian energy company Eni and the French energy company GDF Suez expressed strong opposition towards legislation in the Third Energy Package that would oblige them to unbundle their infrastructural assets from the production of gas.

Noël reminds us that the reasoning behind this criticism was not so common two decades ago.[110] National champions and the bilateral deals of their respective governments with Russia were seen as a pragmatic solution that logically followed the characteristics of the market for gas. These companies were referred to as natural monopolies which entails that the structure of this market made a monopoly the most efficient and thus economical way of structuring the market due to high costs and high risks involved in the energy sector. A market that requires considerable investments upfront and a market that is in need of government support. It was considered common sense that national champions were better able to manage the risks of trading natural gas than segmenting the market and promoting competition.

4.1.2. Gazprom

Gazprom originated out of the Soviet Ministry of Gaz in the Soviet Union which existed until 1989 when it was reorganized into a corporation. When Vladimir Putin came to govern Russia in 2000 he was promoting the development of Gazprom as a national champion. Russia is not a part of the WTO and did not sign any other international economic agreement.[111] This enabled Russia to assimilate the economic goals of Gazprom with the political and strategic goals of the state

[108] European Commission (2006). *Prospects*, 8.

[109] Ziegler, C. E. (2013). Energy Pipeline Networks and Trust: The European Union and Russia in Comparative Perspective. *International Relations*, *27*(1), 13; Inotai, A. (2008). Towards a Common Energy Policy, 21.

[110] Noël, P. (2009). A Market between us, 16.

[111] Molis, A. (2011). Transforming the EU-Russia, 83.

without being hindered by agreements which would limit these efforts. A decade later, Gazprom still controlled 80 percent of Russia's total production and possessed the sole monopoly on the export of natural gas.[112]

Proponents of a Common Energy Policy on supranational level are worried about Gazprom acquiring European energy infrastructure. Gazprom holds a 50 percent stake in the trading hub in Baumgarten, Austria and tried to acquire the infrastructure for the transit of natural gas through Ukraine. Furthermore, Gazprom owns the largest share of facilities in the EU for the storage of gas. For those who are skeptical of Russia this entails the threat that Gazprom could use these assets to influence customers, defy competition and subsequently opposing the two main objectives of a Common Energy Policy with regard to the functioning of the internal market and the security of supply

Moreover, in 2014 Gazprom was in collaboration with nearly 20 energy companies in Europe.[113] The modus operandi in all these collaborations is by joint venture or bilateral relations with their respective governments. Out of all these collaborations the cooperation with national champions in Italy and Germany are considered the most important for Gazprom.[114] Italy and Germany import the largest volumes and yield the largest profits. In disregard of the political implications of these collaborations it should not be underestimated to what extent Gazprom is driven by the same pragmatism as European energy companies by prioritizing cooperation with Germany, in Nord Stream, and with Italy, on South Stream. Thereby scaling down transit of gas through and trade of gas with eastern Europe. As is emphasized by the observation of Aalto when he notes that member states and companies who were strongly opposed to the concept of ownership unbundling did not challenge this mechanism when it was applied to Gazprom when the European Commission initiated an anti-trust inquiry into Gazprom in 2012 for possible anti-competitive behavior.[115]

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[112] Ziegler, C. E. (2013). Energy Pipeline Networks, 13.

[113] *Idem*, 13.

[114] Noël, P. (2009). A Market between us, 14.

[115] Aalto, P. (2014). European Energy Security, 766 – 767.

4.2. National interest

Divided national interests are often used as an argument in itself.[116] However, national interests and commercial interests overlap. Abdelal formulated this relationship in his conclusion: "Although these business decisions were cold, calculating, and profit motivated, the executives who made them relied on history, politics, and trust to do so".[117] The validity of this formulation took questionable forms when Gerard Schröder in his position as the former Chancellor of Germany became head of the shareholders committee of Nord Stream after his government had provided a guarantee to cover a controversial loan for Nord Stream in the case that Gazprom would default. Moreover, Gazprom offered the Italian Prime Minister Romani Prodi the position of Chairman of South Stream after leaving office but, unlike Schröder, Prodi declined.

4.2.1. Liberalization

Pollitt examined the arguments for and against ownership unbundling by examining other the countries where this measure was already implemented.[118] He concluded that in all these cases ownership unbundling was successful in improving competition in their respective markets but was careful with the causation of his findings because it could well be that these markets were set to profit the most from liberalization thus being motivated to implement ownership unbundling in the first place. The research also covered ownership unbundling in the Netherlands and the United Kingdom which already implemented the measures before the adaptation of legislation in the Third Energy Package. Their success reinforced the efforts of the European Commission to include ownership unbundling in the legislative packages.

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[116] See: Schmidt-Felzmann, A. (2011). EU Member States, 576; See: Molis, A. (2011). Transforming the EU-Russia, 78.

[117] Abdelal, R. (2013). *The profits of power*, 447.

[118] Pollitt, M. (2008). *The arguments for and against ownership unbundling of energy transmission networks*. Energy Policy, 36(2), 704-713.

When the legislation for liberalization through ownership unbundling was proposed the national governments were divided within the EU. Led by the national governments of Germany and France the proposal was criticized by six more member states: Austria, Bulgaria, Latvia, Luxembourg, Slovakia, and Greece. For Germany and France the opposition to the proposal for liberalization coincided with the opposition from their respective national champions which were supported in their efforts by the Italian energy company Eni.[119]

By acknowledging the shift in competences towards the European Commission this research downplayed the validity of the argument that the European Commission is lacking the competences to develop a Common Energy Policy. Nonetheless, as with the adaptation of the Third Energy Package the European Commission needs to find compromises with the respective member states in the EU.

The competences of the European Commission should not be overstated which is illustrated by the problematic implementation of legislation from the Third Energy Package. Nowak and Afifi have emphasized that the problematic implementation of the provisions from the Third Energy Package have hindered the development of a Common Energy Policy.[120] These problems are illustrated by the number of infringement cases initiated against the member states. By 2007 the European Commission had opened a total of 34 infringement procedures against 20 member states. The main issues in the transposition of the Directives under the Second Energy Package were concerned with: insufficient unbundling, regulated prices and favored access to incumbents for long-term contracts (LTCs).[121] The legal procedures were initiated because the member states did not transpose the legislation at all or they did not implement the legislation as they were obliged to do. Problems with implementation were not limited to the Second Energy Package but they continued with the problematic implementation of the Third Energy Package. Reviewing this, highlights the persistency and pragmatism in which national interests are

[119] National governments are often shareholders in their national champions. The French state is the largest shareholder in both GDF Suez (35,9%) and EDF (85%). The Italian government owns a golden share (30%) in Eni and is thus able to outvote opposition on certain issues. Germany energy companies RWE, Wintershall and E.ON have a higher share of private shareholders in comparison to institutional shareholders.

[120] Nowak, B. (2010). Energy Market, 34; Afifi, S. N., (2013). The Impacts, 15.

[121] European Commission (2006). *Prospects*, 6.

safeguarded. While the United Kingdom, the Netherlands, Denmark and Sweden implemented the legislation before it took effect, Germany and France were resisting proper implementation.[122]

4.2.2. Pipelines

Energy companies participating in pipeline projects[123]		
Nord Stream	South Stream[124]	Nabucco
-	Austria (OMV)	Austria (OMV)
-	Bulgaria (BEH)	Bulgaria (BEH)
France (GDF)	*France (EDF)	France (GDF)
Germany (Wintershall, E.ON)	*Germany (Wintershall)	Germany (RWE)
-	Greece (DESFA)	-
-	Hungary (MOL/MFB)	Hungary (MOL)
-	*Italy (Eni)	-
Netherlands (Gasunie)	-	-
-	-	Romania (Transgaz)
-	Serbia (Srbijagas)	-
-	Slovenia (Plinovodi)	-
Russia (Gazprom)	Russia (Gazprom)	-

Figure 10. Energy companies participating in pipeline projects.

Russia prefers to structure the export of natural gas using bilateral deals with individual member states. Umbach argues that Russia prefers bilateral deals because it provides her with the ability to 'Divide and Rule!'.[125] However, this modes operandi is not to the sole benefit of Russia nor

[122] Aalto, P. (2014). European Energy Security, 768.

[123] These companies are participating in a pipeline project or they have done so in the past. I.e: German RWE left the Nabucco project in 2013 and France GDF Suez took over all of RWE's shares.

[124] *Wintershall, EDF and Eni collaborated with Gazprom in the joint venture South Stream Transport B.V. for the development of the offshore section crossing the Black Sea. In December 2014 Gazprom took over all shares in the joint venture from EDF, Wintershall and Eni after cancellation of the project.

[125] Umbach, F. (2010). Global energy security, 1237.

does Russia have a monopoly on the concept of bilateral agreements. Member states such as Germany and France prefer bilateral agreements with Russia over a supranational approach. This is a pragmatic choice since they stand to benefit most from these direct relations with Russia. This does not imply that these bilateral relations or infrastructural projects by definition oppose efforts for liberalization. Nord Stream and South Stream are the most controversial examples of bilateral relations with Russia. Therefore it is useful to examine the winners and losers in both projects to explain the policy choices of the national governments in the EU towards a Common Energy Policy and liberalization.

Nord Stream was initiated by the energy companies Gazprom, E.ON and Wintershall. Subsequently Gasunie and GDF joined the project thereafter. The pipeline infrastructure for Russian gas enjoyed the full support of their respective governments because it would enable these countries to bypass the traditional transit countries which would improve the security of supply and reduce additional transit costs. The United Kingdom was openly suggesting that Nord Stream could be extended to their domestic market as well.[126] Poland, Estonia, Latvia and Lithuania comprised the most vocal opponents of the project. The Polish opposition to the construction of Nord Stream is often used as the prime example of the divisive nature of bilateral collaboration with Russia.[127] As Germany and Russia agreed on developing the new project Polish politicians were quick to express their strong opposition. The subsequent comparison to German politics during the Second World War was able to count on a receptive audience and was cited numerous times in both the public and academic debate to emphasize the divisive consequences of Nord Stream. These concerns voiced by the traditional transit country is not unfounded but it should be put in perspective. Formally this opposition was grounded in concerns for the environmental and political consequences. I.e.: Russia would be able to cut off supplies to Poland because Nord Stream would provide an alternative route to Western Europe.[128] However, following the argumentation of this research we have reasonably

[126] However, both the United Kingdom and the Netherlands were the first to support ownership unbundling. The next chapter on prices will elaborate why they stand to benefit from the development of an internal market for energy since they are important players in the gas-on-gas trade in Western Europe.

[127] Oliver, C., (2014, July 9). EU energy market: Pipe dream. *Financial Times*.

[128] Khrushcheva, O. (2011). The Creation of an Energy Security Society, 219.

determined that Nord Stream does not increase the dependency on Russia and the rhetoric on security of supply is often framed to advance the position of the actor that proclaims this threat. Therefore it is reasonable that some academic authors have questioned motives of the Polish opposition by pointing to the loss in volume for the Yamal pipeline, subsequent transit fees and the loss in political leverage against Russia.[129]

South Stream was initiated by Gazprom and Eni to circumvent the traditional transit countries as well. The route of the project was later changed to enter the EU in Bulgaria. The pipeline would then be constructed through Serbia, Hungary and Austria without requiring these countries to make considerable investments that would usually accompany this expensive project. The pragmatism that accompanies these collaboration is illustrated by the fact that Austria, Bulgaria and Hungary supported both Nabucco and South Stream while these projects are examples of the political tensions between the EU and Russia. When South Stream was cancelled in 2014 it was not only the participants of the project that were affected but also the two most important objectives of a Common Energy Policy: development of the internal market and security of supply. The participating countries would lose both the transit revenues and the alternative transport route for Russian gas. Moreover, they would lose the opportunity to improve their strategic location in Europe and they now had to continue to rely on Ukraine as the main transit country for the importation of Russian gas. Besides that, Italy and Austria lost the opportunity to become strategic hubs for the trade and transport of gas in Central and South Eastern Europe. Consequently, Ukraine and Slovakia became the main beneficiaries of the cancellation of the project by safeguarding their strategic position as traditional transit countries.

[129] Schmidt-Felzmann, A. (2011a). EU Member States, 593.

4.3. Prices

4.3.1. Energy weapon

The role of prices lacks hard data because data on the price of natural gas is considered confidential by both Gazprom and its clients. When using the available data on the prices of Russian gas profound differences are revealed. These differences between member states can roughly be categorized by their geographical and historical proximity to Russia. For 2006 it is estimated that Germany paid roughly 250 EUR per thousand cubic meters (tcm) while Poland paid around 150 EUR and the Baltic countries between 105 - 140 EUR.[130]

Yet the member states that paid considerably less for natural gas in 2006 were often also the member states that had the worst relation with Russia. A reason for this is the suspicion that Russia uses the leverage on these countries to influence their national policies. Thus the price of gas can change according to the disposition of a member state towards Russia.[131] In recent years this was illustrated in Ukraine where the new government with a favorable stance towards Russia received significant discounts on the price of gas. When this government was replaced by a new government who positioned itself towards the EU the discount was withdrawn.[132]

Aalto mentioned that Russia was using the trade in natural gas for political goals in more than 30 instances between 2000 and 2010.[133] Ziegler also argued that Russia and Gazprom have used political leverage to influence national policies in Eastern Europe.[134] While this might be true it provides partial representation of pipeline politics. Postolachi reminds the reader that the energy disputes in 2006 and 2009 were initiated by Ukraine when the national government tried

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[130] Goldthau, A. (2008). Rhetoric versus reality, 687; Tirpak, M., (2006). *Energy supply in Central Europe and the Baltics.* IMF Regional Office Note, 7.

[131] Smith Stegen, K. (2011). Deconstructing the "energy weapon": Russia's threat to Europe as case study. *Energy Policy*, *39*(10), 6509 – 6510.

[132] Kramer, A.E. (2014, April 1). Russia Tightens Pressure on Ukraine With Rise in Natural Gas Price. *New York Times.*

[133] Aalto, P. (2014). European Energy Security, 763.

[134] Ziegler, C. E. (2013). Energy Pipeline Networks, 22.

to renegotiate prices by making use of its vital position as the most important transit country.[135] More importantly however, is the argument of Stegen Smith that was mentioned in the chapter on political arguments. She rightfully emphasized that Russia's use of gas as a political weapon had eventually backfired on Russia in a multitude of instances.[136] Thus we can conclude that Gazprom's influence on gas prices does not prevent the development of a Common Energy Policy but rather it promotes popular resentment towards Russia. The disputes on prices caused this resentment as a side effect rather as its aim due to pragmatic economic motives.

Russian renegotiations of gas prices throughout Europe was a reactive policy and coincided with renegotiations on gas prices with Norway and Algeria originating from changes in the supply and demand on the world market. The reverse policy can be witnessed in Eastern Europe where countries were obliged to pay increasingly more for Russian gas in the last decade. However the increase in price for member states in Eastern Europe should be viewed as an inevitable economic reaction to historical low prices following the subsidizing of these countries under the former Soviet Union.[137]

4.3.2. LTC and spot market

Russia's influence on blocking future integration of the European energy market is limited by the changing dynamics of the energy market in Western Europe because the prices are not only determined through (1) long-term contracts (LTCs) that work on a take-or-pay basis but also by (2) gas-on-gas competition in spot markets.

(1) To date the vast majority of gas trade is structured through long-term contracts which tend to follow the volatility of the oil price.[138] The provisions of LTCs ensure that Russia as a

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[135] Postolachi, A. T. (2013). Ensuring Security of Supply of Natural Gas in the European Union's Common Energy Policy. *Acta Universitatis Danubius. Œconomica, 9*(4), 384.

[136] Smith Stegen, K. (2011). Deconstructing the "energy weapon": Russia's threat to Europe as case study. *Energy Policy, 39*(10), 6511.

[137] Inotai, A. (2008). Towards a Common Energy Policy, 17.

[138] Goldthau, A. (2013). *The politics of natural gas*, 7.

supplier sells a minimum amount of gas even if the gas is not used. Furthermore the prices include regulations that prohibited the importer of Russian gas from reselling it to other member states. These contracts are not characteristic for Russia but the contracts are common in the trade of natural gas amongst other exporting countries such as The Netherlands, Norway and Algeria.[139] Nowak mentions how these bilateral obligations divided member states and disrupted competition.[140] Providing the foundation for one of the main arguments used by former Polish Prime Minister Tusk to call for a negotiating body on a supranational level because this would enable the EU to acquire information on bilateral deals and their corresponding prices at pace with the position of Gazprom.[141]

(2) However, in Western Europe this structure for trading has begun to change. Most notably in the United Kingdom and the Netherlands where spot markets have gained a foothold. Spot markets are marketplaces located on virtual or physical hubs that enable market participants to trade gas. These spot markets adhere to a short-term structure where Russian gas has to compete with LNG imports and thereby increasing competition.[142] As a consequence of competition of gas traded in these hubs there is a high price transparency and limited transactions costs in comparison with LTC. As a result of market integration the prices of pipeline gas and LNG have converged in the past decade. In the quarterly review of the gas market the European Commission emphasized the success of gas-on-gas competition. The European Commission argued that increased competition on spot markets in Western Europe influenced the price of gas traded in Eastern Europe.[143] However, the price of 43% of all gas traded in the EU is still based on the indexation of the oil prices.[144] The fact that these changes occurred in countries who both participated in Nord Stream and supported ownership unbundling testifies how bilateral relations can become part of the competition in the internal market. This is not to say the spot markets are always more profitable than LTC for those in demand of gas. The prices on spot markets are

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[139] Noël, P. (2009). A Market between us, 15.

[140] Nowak, B. (2010). Energy Market, 29-30.

[141] Oliver, C., (2014, July 9). EU energy market: Pipe dream. *Financial Times*.

[142] Dreyer, I. (2014). *After Ukraine*, 2.

[143] European Commission (2014). *Quarterly Report 7*(3), 22.

[144] *Idem*, 16.

more volatile and more dependent on the price of gas and alternative energy commodities on the global market whilst the price agreed upon in LTC is more stable and less affected by the changes in supply and demand of energy.

4.3.3. Energy market

Following the argumentation in the previous chapter, the changes in supply and demand on the world market influenced the interests of national champions. Before it was argued that national champions that collaborate with Russia stand to benefit more from a fragmented market than a single competitive market. While it is unreasonable to neglect the validity of this argumentation it needs to be qualified. Noël argues that energy companies increasingly shift their support towards a single European market for energy because they want to be able to trade gas from west to east when future disruptions occur and to profit from price developments on the global market.[145] Furthermore, these energy companies are increasingly pressured to change their modus operandi in the trade of gas. Goldthau acknowledges this when he argues that changing dynamics of prices threaten to put domestic energy companies out of business.[146] This has led Dreyer to compare the market for gas to the more competitive markets of oil and coal where Russia is not able to dominate.[147] Aalto even argues that the competition from LNG provides the European Commission with the renewed possibility to "break the national champions' anti-competitive positions".[148] Therefore it is reasonable to conclude that national champions promote the national interests of their host country but the means to do so have increasingly come into line with the objective of creating an internal market in the EU. Gazprom, among many others, prefers LTCs with European national champions and hinders competition on the internal market. However, changing global circumstances provide a significant counterweight to traditional market structure in the EU.

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[145] Noël, P. (2009). A Market between us, 21, 24.

[146] Goldthau, A. (2013). *The politics of natural gas*, 28.

[147] Dreyer, I. (2014). *After Ukraine*, 2.

[148] Aalto, P. (2014). European Energy Security, 768.

Conclusion

Developing the internal market is the most important objective of the Third Energy Package and a Common Energy Policy. In order to create a competitive internal market it is necessary to improve the integration of the European energy grid. The construction of LNG-terminals, pipelines and interconnectors with reverse-flow capabilities are the appointed infrastructure for achieving these objectives. Since the adaptation of the Third Energy Package the construction of this infrastructure has increased significantly and the subsequent operation of this infrastructure has changed the traditional flow of gas in the EU. The new entry point into Germany provided by Nord Stream diversified the infrastructure for the trade of gas with Russia. Nord Stream used the increased connectivity of the energy grid to distribute Russian gas in opposite direction to the traditional flow of gas. It is reasonable to assume that the construction of South Stream would have entailed the same development of the internal market and the security of supply if the project had been constructed.

Diversification of the pipeline infrastructure for trading gas with Russia does not increase the diversification of sources, which could threaten the security of supply. However, since the operation of Nord Stream both the volume and the share of Russian gas imported into the EU has decreased. While domestic production is dwindling and will do so in the future, the import of gas from Russia was limited through increased efficiency, alternative sources of energy and a negative perception of Russia. Additionally, it is questionable if Russia would be able to increase the volume of gas exported to the EU considering the lack of investments and the depletion of gas fields currently in operation. In disregard of Nord Stream the diversification of sources for the import of gas has increased since 2006. Consequently, Nord Stream has not increased the dependency on Russian gas and there is no compelling reason to assume this would be any different for South Stream.

The debate on the development of a Common Energy Policy is defined as a struggle between two levels of governance: supranational versus intergovernmental. This research concludes that the European Commission has been able to initiate a supranational character to the development of a Common Energy Policy through the proposal of new legislation. This is shown through the monitoring of national regulators, the creation of two influential positions

under the Lisbon Treaty and the establishment of a mechanism for the exchange of information on bilateral agreements.

While the distribution of competences is recorded in the Treaty of Lisbon the practical interpretation of these competences has not been static. The European Commission was able to create and shift legislative competences towards a supranational level by cooperation with member states, initiating secondary legislation that provided rules and boundaries for primary legislation and by pressuring market actors indirectly. The European Commission managed to do so by using and creating the favorable circumstances in which these changes would be acceptable. Nord Stream and South Stream illustrate the supranational competences of the European Commission by blocking Gazprom from using the full capacity of these pipelines. This does not mean the Third Energy Package is designed in opposition to Russia. However it does illustrate that legislation for the development of the internal market is used by policymakers to oppose Russian assertiveness in the operation of pipeline infrastructure.

The perception of Russia providing a threat to the security of supply was unprecedented in the historic gas trade with Europe. The topic of energy security gained public awareness in the new millennium and the European Commission used this to create a sense of urgency. This sense of urgency was not shared by most of the national governments who were primarily concerned with the urgencies provided by their national interests. This pragmatic stance of the member states led to collaboration with Russia in Nord Stream and South Stream. Nord Stream has proven to increase the security of supply by diminishing the strategic position of Ukraine as traditional transit country and it is justified to assume the same for South Stream.

National champions and the bilateral deals of their respective governments with Russia were initiated as a pragmatic structure that logically followed the characteristics of the market for gas. It was considered common sense that national champions were more suitable to manage the risks of trading natural gas rather than segmenting the market and promoting competition. It should not be underestimated to what extent Gazprom is driven by the same pragmatism in prioritizing cooperation with Germany in Nord Stream and with Italy in South Stream, consequently scaling down the importance of relationships with member states in Eastern Europe.

While commercial interests often initiate the development of energy policy they need political cooperation to be able to operate most efficiently. Liberalization of the existing market structure led to opposition from national champions and their respective governments. While compromises were made to adapt legislation for the unbundling of the ownership of infrastructure the subsequent implementation proved problematic. Initial opponents of liberalization resisted proper implementation of the legislation which led to the opening of legal cases by the European Commission. For those skeptical of Russian dependence, Nord Stream provided a good example of the divisive consequences of European collaboration with Gazprom. However, it is reasonable to explain this emphasis on energy security as market pragmatism, whereas Nord Stream created profit for Germany it incurred financial losses for Poland.

When on December 1, 2014 Vladimir Putin announced the cancellation of South Stream this was not only affecting the member states participating in the project but also the objectives of a Common Energy Policy: development of the internal market and security of supply. Italy and Austria lost an opportunity to become strategic hubs for the trade and transport of gas. Bulgaria, Hungary, Serbia and Slovakia lost transit revenues, political leverage and an alternative to unreliable transportation of gas through Ukraine.

This research does not determine if Russia was using gas as a political weapon because in disregard to the significance of this assertion the disruptions of gas damaged the reputation of Russia as a reliable supplier and the reputation of Ukraine as a reliable transit country. In other words, even if Russia used gas as a political weapon with the purpose of influencing national governments it eventually did not hinder the objectives of a Common Energy Policy. The supply of Russian gas is subordinated to the volatile supply and demand on the global market which is illustrated by revision of contracts and prices with member states throughout the EU. While LTCs and the indexation of gas prices to the price of oil remain the modus operandi for a significant share of the market, the emerging of spot markets and gas-on-gas competition influences the traditional trade and pricing of gas. These markets are concentrated in the United Kingdom and the Netherlands but subsequent price signals are received throughout Europe. Both member states were eager to collaborate in Nord Stream and argued for ownership unbundling which testifies how new infrastructure for the trade of Russian gas can participate in gas-on-gas competition in the internal market.

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