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EU-RUSSIA STRATEGIC RELATIONS: A GAS ISSUE

ZHANYL BOZAYEVA
12716017

Thesis Advisor
Assoc. Prof. VİŞNE KORKMAZ

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ZHANYL BOZAYEVA
(12716017)

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ABSTRACT

EU-RUSSIA STRATEGIC RELATIONS: A GAS ISSUE
Zhanyl Bozayeva
July, 2015

This thesis considers the European Union-Russia gas relations in the context of three different time periods: the Cold War, post-Cold War and post-2014 Ukrainian crisis. The aim of the thesis is to understand and evaluate the EU-Russia energy relations, identify the basic principles of these relations and examine the changes that occurred after the end of the Cold War. The findings of the thesis have shown that the energy dialogue between Brussels and Moscow has been changing and has illustrated different characteristics in different periods of time. Despite these changes, the thesis concludes that the energy dialogue between the parties since its inception to the most recent period has been based on mutual interdependence. The 1st period covered the years from 1913 to 1991. The Cold War gas/energy relations between the parties, despite the hostile atmosphere of the Cold War period, were based on a commercial partnership, that is, the parties were believed to interact with each other mostly because of business considerations. During the Cold War gas relations period the Soviet Union constructed an image of a reliable gas supplier. Within the next period (1991-2014) this commercial partnership was substituted by the strategic partnership; however, the Russian image as the dependable supplier was tarnished. Despite this fact, the European policy towards Russia was based on the "Russia First" approach, so the interests of the so-called "New Europe" (Central and Eastern Europe) within the energy dialogue were disregarded. However in the wake of the 2014 Ukrainian crisis the "Russia First" approach started to be questioned by Brussels. Such kind of change could herald the beginning of the 3rd phase in the EU-Russia energy dialogue, as Brussels attempts to replace the existing "Russia First" approach by a new "Eastern Europe First" approach.

Keywords : Russia, European Union, Natural Gas, Gas Disputes, EU-Russia Energy Dialogue, Energy Interdependence

ÖZ

AVRUPA BİRLİĞİ-RUSYA STRATEJİK İLİŞKİLERİ: GAZ SORUNU

Zhanyl Bozayeva
Temmuz, 2015

Bu yüksek lisans tezi Soğuk Savaş, Soğuk Savaş sonrası ve 2014 Ukrayna krizi sonrası dönemlerindeki Avrupa Birliği-Rusya gaz ilişkilerini değerlendirmektedir. Bu tezin amacı Rusya ve Avrupa arasındaki stratejik gaz/enerji ilişkilerini tarihsel süreci değerlendirerek kavramak, gaz/enerji ilişkilerinin temel dayanaklarını tespit etmek ve Soğuk Savaş sonrasındaki değişimini incelemektir. Bu çalışmanın bulguları Brüksel ve Moskova arasındaki enerji diyaloglarının farklı dönemlerde farklı özellikler taşıdıklarını göstermektedir. Enerji diyaloğundaki yaklaşımların değişimlerine rağmen taraflar arasındaki bu diyalog başlangıcından bu yana karşılıklı bağımlılık temeline dayanmıştır. Araştırmanın 1. Dönemi 1913-1991 yıllarını kapsamaktadır. Bu dönemin sonucunda taraflar arasındaki gaz ilişkilerinin Soğuk Savaş dönemindeki düşmanca atmosfere rağmen ticari ortaklığa dayalı olduğu kanısına varılmıştır. Başka bir deyişle, taraflar birbirleriyle çoğunlukla ticaret nedeniyle etkileştiği sonucu çıkarılmıştır. 1. Dönem süresince Sovyetler Birliği'nin (Rusya'nın) güvenilir bir gaz tedarikçisi imajını inşa ettiği görülmüştür. Sonraki dönemde — 1991-2014 yılları arasında — taraflar arasındaki mevcut ticari ortaklığın stratejik ortaklık olarak değişime ugradığı gözlemlenmektedir; bununla birlikte Rusya'nın güvenilir gaz satıcı imajının zedelendiği belirlenmiştir. Buna rağmen bu dönemde Avrupa'nın Rusya'ya karşı politikasının "Öncelikli Rusya" yaklaşımına dayandığı tespit edilmiş ve bu yaklaşımın sonucunda sözde "Yeni Avrupa" (Orta ve Doğu Avrupa) ülkelerinin çıkarları gözardı edilmiştir. Ancak 2014 Ukrayna krizinin ortaya çıkmasıyla birlikte Brüksel bu "Öncelikli Rusya" yaklaşımını sorgulamaya başlamıştı. Böyle bir sorgulama 3. Dönemin başlamasının habercisi olabilir. Ve bu durumda AB Rusya'ya olan "Öncelikli Rusya" yaklaşımını "Öncelikli Doğu Avrupa" yaklaşımıyla değiştirmeye çalışabilir.

Anahtar Kelimeler : Rusya, Avrupa Birliği, Doğal Gaz, Doğalgaz Krizleri, AB-Rusya Enerji Diyaloğu, Karşılıklı Bağımlılık

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Istanbul, July 2015 Zhanyl Bozayeva

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APR : Asia-Pacific Region
Bcm : Billion Cubic Meters
CAR : Central Asian region
CIS : Commonwealth of Independent States
CMEA : Council for Mutual Economic Assistance
EC : European Commission
EEC : European Energy Charter
ECT : European Charter Treaty
EE System : "Entry-Exit" System
EnU : Energy Union
EU : European Union
FDI : Foreign Direct Investment
FRG : Federal Republic of Germany
FSU : Former Soviet Union
GATT : General Agreement on Tariffs and Trade
GNP : Gross National Product
ISO : Independent System Operator
ITO : Independent Transmission Operator
LNG : Liquefied Natural Gas
LTC : Long-term Contracts
Mcm : Million Cubic Meters
Mtoe : Million Tons of Oil Equivalent
OAO : Otkritoe Aktsionernoe Obshetsvo
OU : Ownership Unbundling
NATO : North Atlantic Treaty Organization
PCA : Partnership and Cooperation Agreement
PP System : Point-to-Point System
REIO : Regional Economical Integration Organization
RF : Russian Federation
SCP : South Caucasus Pipeline
SGC : Southern Gas Corridor
TANAP : Trans-Anatolian Pipeline :
TAP : Trans-Adriatic Pipeline
Tcm : Trillion Cubic Meters
TEP : Third Energy Package
TSO : Transmission System Operator
USA : United States of America
USD : US Dollar
USSR : Union of Soviet Socialist Republics

VTP : Virtual Trading Point
WTO : World Trade Organization

1. INTRODUCTION

It would not be an exaggeration to say that EU-Russia energy relations have always been complicated and unique at the same time. This energy dialogue, with an export volume of only 6.8 billion cubic meters (bcm) of natural gas in 1973[1], distorted the classical notion of the Cold War — a state of political, military and ideological confrontation between the so-called Western and Eastern Blocs — and showed us that enemies are able to cooperate if the parties chose to cooperate.

After the end of the Cold War this energy interdependence started to be taken for granted, and only a few people were asking themselves, "Where do these energy relations lead?" As one might expect at that time the notion of energy security had only an insignificant popularity among politicians and academia. Meanwhile, the EU dependence on Russian "blue gold" was gradually increasing, whereas its domestic energy production was following the opposite trend. As a consequence, Russian natural gas exports met more than three quarters, that is to say 76.8%, of the European total gas consumption[2]. Furthermore, more than six EU member-states are 100% dependent on Russian hydrocarbon imports[3].

With the political crises between Russia and transit countries with ensuing gas disruptions to Europe the European energy interdependence with Moscow started to be understood differently: the above figures started to be perceived as a reason for concern and a challenge to European energy security. Since then, ensuring the security of gas supplies became higher on the European Union and European state leaders' agenda. In the wake of the 2014 Ukrainian crisis the European concerns regarding the heavy energy dependence on Moscow had increased and, moreover, it had started to be argued that

[1] OOO Gazrpom Export, http://www.gazpromexport.ru/en/statistics/ [12.06.2015].
[2] Eurostat, http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_production_and_imports [12.06.2015].
[3] European Commission, "European Energy Security Strategy" (SWD (2014) 330; Date 28 May 2014), http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0330&from=EN [7.06.2015].

Europe should break its energy dependence on Russia in the short term. In addition, Brussels, together with Washington condemning Russian aggressive policy in its Near Abroad, started to take coercive measures and imposed sanctions against Moscow. All in all, these developments triggered a deterioration and freeze in gas relations between Russia and Europe. In fact, it is sometimes suggested that the ongoing crisis in Ukraine with its consequences could be the start of a new Cold War between Russia and the United States/European Union. Consequently, the gas issue and energy security of Europe has become one of the most discussed issues in the 2014-2015 EU`s foreign policy agenda. Therefore, it could be said that this paper was "born" as a result of the enduring political agiotage surrounding the polemics in the Russia-EU energy relations issue.

Generally speaking, this study considers the natural gas relations between the EU and Russia in the Cold War, post-Cold War periods and the post-2014 Ukrainian gas crisis period. While scrutinizing the gas issue between Brussels and Moscow the following objectives are intended to be reached:

- Understand and evaluate EU-Russia strategic energy relations;
- Identify the basic principles of these relations;
- Examine changes that occurred after the end of the Cold War.

To that end, the study is divided into five chapters, which are designed to consider the EU-Russia energy relations from three different time frames: the Cold War, post-Cold War and post-Ukrainian (2014) gas crisis. This means that the thesis aims to cover the past, present and future of the EU-Russia energy dialogue. In that event, it is projected to make a comprehensive review of gas relations between Brussels and Moscow.

Chapter 1 (second after the introductory section) of the study deals with the roots of the European-Russian energy (gas) interdependence. In other words, Chapter 2 aims at analyzing how European countries became so vulnerable on Russian energy imports. If we intend on understanding the current situation within the EU-RF energy relations it is particularly significant to revise the historical background of these relations and

understand how current European import reliance was constructed. Therefore, after a brief review on the evolution of the gas industry in the Soviet Union in the first part of the chapter, I will gradually shift my attention to reasons that drove the enemies to start their commercial partnership in the gas sector.

The next chapter (Chapter 3) looks at how the established Cold War gas dialogue between the parties had developed following the collapse of the USSR and the end of the Cold War respectively. In the energy realm, the collapse of the USSR changed the environment of European-Russian gas relations. As Nadejda and David Victor claim[4], there are at least three aftereffects of the Soviet Union`s collapse. Firstly, the Eastern Bloc was dissolved, and in its place, new transit countries emerged, which could be a reason of uncertainty over a period of time. Secondly, as the Soviet Union broke up, 15 independent states emerged. The two most important being Ukraine and Belarus, since most of Europe-destined "blue gold" passed and continue to pass, though with a relative decrease, through the territories of these states. Last but not least, the break-up of the USSR with ensuing economical hardship triggered a rapid decrease in Russian gas demand not only within the Russian Federation, but also among former Soviet Union-customers (FSU).

It is generally accepted, however, that the most significant change that had arisen in the post-Cold War period was the emergence of the transit countries. Therefore, the first part of Chapter 3 considers how this change affected Russian-European energy (gas) relations and what its consequences for Russian and European energy policies were.

As for the second part of Chapter 3, it questions why the parties, despite the several gas crises between Russia and transit countries, such as the 2006, 2009 and 2014 Ukrainian crises and the 2010 Belarusian crisis, continue to collaborate with each other. This section assumes that the energy dialogue between Moscow and Brussels is actually a good example of partnership of necessity.

[4] Nadejda M. Victor, David. G. Victor, "Bypassing Ukraine: Exporting Russian Gas to Poland and Germany" in **Natural Gas and Geopolitics: From 1970 to 2040**, ed. by David G. Victor, Amy M. Jaffe, Mark H. Hayes (Cambridge: Cambridge University Press, 2006), 134-137.

The last section of Chapter 3 focuses on the question of how the parties supported the existing partnership of necessity. This part of the chapter considers the joint efforts of Brussels and Moscow which to a certain extent aimed at improving the energy dialogue between the parties: establishment of institutional and legal bases of the EU-Russia energy dialogue, diversification of the main supply routes, to name but a few.

As previously mentioned, the EU-Russia gas relations have always been complex. This is because of the fact that, despite the long-standing energy relations, the parties have never achieved the joint objectives stated in the bilateral official documents and never have had a "healthy" gas supplier-buyer relation. Therefore, the first part of Chapter 4 considers the reasons that have caused this failure. The second part deals with the current condition of the EU-Russia gas relations and analyzes possible changes that might have arisen after the recent events in Ukraine in the energy dialogue between the parties. In other words, the final part of the chapter considers the ongoing crisis in Ukraine, it's possible repercussions on the EU-Russia gas dialogue and the further steps the EU may take.

Chapter 5 summarizes the findings of the previous chapters and contains some concluding observations.

There is no disputing the fact that in the wake of the 2014 Ukraine-Russia crisis the subject of the European gas reliance on Russia has started to receive greater media coverage. Most of these publications are based on the idea that Europe should immediately diversify its gas supplies. However, the main challenge of such appeals is that, they are mostly made without fully comprehending the EU-Russia gas relations, the level of particular interdependency between the parties and the historical background of the EU-Russia gas relations. Therefore, the **important aspect of this dissertation** is that it considers the gas relations between Brussels and Moscow from different time frames, and tries to analyze continuities as well as changes in this energy dialogue.

2. HISTORICAL BACKGROUND OF EUROPEAN-SOVIET ENERGY RELATIONSHIPS

2.1. General Outline

There is no disputing the fact that EU-Russia energy relationships are at a critical stage in the 21st century. Following the ongoing crisis in Ukraine the future of these relations and ways of ensuring European energy security have become even a higher priority not only on the European Union and European state leaders` agenda, but also on NATO`s. It is quite clear that the Ukraine crisis triggered an alarm in western circles and not without a reason, since Europe is heavily dependent on energy imports: 54% of its energy consumption came from imported sources outside of the Union in 2012[5], where Russian imports comprise to 65% of the total European Union (EU) imports[6]. Moreover, 61% of these imports are Russian natural gas imports[7].

From all of these statistics it is clear that the EU`s import dependence is very high. Therefore, this chapter aims at analyzing how European countries became so vulnerable on Russian energy imports. If we intend to understand the current situation within the EU-RF energy relations it is particularly significant to revise the historical background of these relations and understand how the current European import reliance came about. Although, Europe imports practically all types of Russian energy, the role of natural gas imports is particularly crucial.

Therefore, this chapter starts with analyzing how the Soviet Union emerged as a large producer and exporter of natural gas during the Cold War and how natural gas

[5] Nataliya Esakova**, European Energy Security: Analyzing the EU-Russia Energy Security in Terms of Interdependence Theory (**Wiesbaden: Springer Fachmedien, 2012**)**, 159**.**
[6] EU-Russia Energy Dialogue, **Joint Report EU-Russia Energy Dialogue 2000-2010: Opportunities for Our Future Energy Partnership** (Brussels/Moscow, 2010), http://www.ab.gov.tr/files/ardb/evt/1_avrupa_birligi/1_9_politikalar/1_9_6_enerji_politikasi/2010_11_report-0thtanniversaryfinal.pdf [8.03. 2015].
[7] Nataliya Esakova, op.cit, 161.

became a "typical communist" fuel. Furthermore, we will inquire how the Eastern and Western Blocs became integrated through Soviet natural gas exports. And finally, we will investigate the role Soviet gas imports played in the Eastern and Western blocs.

2.2. Evolution of the Soviet Natural Gas Industry

Nowadays, it is not at all a secret that the Russian Federation (RF) has significant energy resources. It is the world`s biggest supplier of natural gas and the second biggest exporter in the oil industry. Of course, these "achievements" were not reached overnight. Therefore, in this subchapter evolution of the Soviet gas industry will be discussed.

According to Elena Ovcharenko[8], the development of the Soviet gas industry should be divided into three phases, where 1913-1960s constitutes as the first stage which can be characterized by the growth of associated gas production, discoveries of the first natural gas fields and construction of the first gas pipelines. In other words, 1913-1960s are the founding years of the Soviet gas industry. The period between 1961 and 1991 is accepted as the second stage when the "new born" Soviet gas industry became one of the principal energy sources not only for the entire Soviet Union, but also for the Eastern and Western European countries. Thanks to an increase in natural gas production the Soviet Union experienced "a big surplus in exports" which triggered Western and Eastern blocs to integrate effectively with each other in the energy sector. In the third phase, as Ovcharenko states, Russia transformed from a gas exporter into an energy power following the increase of globalization in the gas sector.

In the pre-revolutionary time, Russian extraction of gas (associated gas) was so negligible, that it can be concluded that there was no production of gas at all[9]. In 1913

[8] Elena Ovcharenko, "Stanovleniye i Razvitie Gazovoi Promishlennosti v Rossii" (Dissertation for the Degree of Candidate of Economic Sciences, Orenburg State University, 2009), http://www.dissercat.com/content/stanovlenie-i-razvitie-gazovoi-promyshlennosti-v-rossii [2.03.2015].

[9] However, according to Russian historians, Aleksandr Matveichuk and Yuryi Evdoshenko, the negligibility of the pre-revolutionary gas production in Russia is a stereotype. As the authors claim, the stereotype was formed due to: 1. Lack of reliable statistics on the gas production before 1917; 2. Enormous gas production rates in the second half of the 20th century, so the pre-revolutionary produced gas amount seemed to be very small.; 3. Ideological policy of the Soviet government which attempted to prove that the gas industry was developed only after the establishment of Soviet power in Russia. For more details see Aleksandr Matveichuk, Yuryi Evdoshenko, **Istoki Gazovoi Otrasli Rossii 1811-1945gg.: Istoricheskie Ocherki** (Moscow: Granitsa, 2011), 8-14.

only 0.2 billion of cubic meters (bcm) of gas were produced[10]. Coal was the principal energy source of the USSR during World War II. However, Hitler`s invasion of the Soviet's major coal regions paved the way to the realization of the construction of the first Soviet gas pipeline, Saratov-Moscow, between 1942 and 1944[11]. Though the overall length of the pipeline was very short (843 km[12]) and it extracted a very small amount of gas (see Table 1), the Saratov gas field exploitation, without hesitation, was accepted as a successful pioneer project in the Soviet gas industry at that time.

Table 1: Gas Extraction during the Second World War in Russia

Natural Gas/bcm	1940	Total in %	1945	Total in %
	3.2	1.9	3.3	2.3

E.Ovcharenko, "Stanovleniye i Razvitie Gazovoi Promishlennosti v Rossii (1913-1975gg)", 69.

Later on, this experience was further developed by the construction of the Dashava- Kiev-Moscow gas pipeline. The main function of the pipeline was to supply gas to Ukrainian and Russian, Belarusian (1960), Lithuanian (1961), Latvian (1962) Soviet Socialist Republics. These developments made the Soviet Union become "a new born" gas exporter"[13]. But despite the fact that natural gas was recognized as an innovative branch of fuel and energy complex, the proportion of it, in comparison to coal and oil, contributed only a little to the total energy production in the USSR. This trend had changed only after death of Stalin in 1953, when his successor - Nikita Khrushchev- officially supported the further development of the gas industry during the 22nd Congress of the Communist Party in 1956 and reformed the existing Soviet gas industry by launching a new energy policy[14]. Moreover, along the same lines, the

[10] E.Ovcharenko, "Stanovleniye i Razvitie Gazovoi Promishlennosti v Rossii (1913-1975gg.)", **Bulletin of Orenburg State University,** Vol. 4 (2009): 69, http://vestnik.osu.ru/2009_4/12.pdf [2.03.2015].
[11] Gazprom, http://www.gazprom.ru/about/history/events/60years/ [19.07.2015].
[12] Mihail Dichev, "Pervomu Gazoprovodu v Nashei Strane Ispolnilos` 60 let", **Gazeta "Izvestiya",** 31 August 2006, http://www.gazprom.ru/about/history/events/60years/publication/310806/ [19.07.2015]; E. Ovcharenko, "Stanovleniye i Razvitie Gazovoi Promishlennosti v Rossii (1913-1975gg)", 69.
[13] Per Högselius, **Red Gas: Russia and the Origins of European Energy Dependence** (New York: Palgrave Macmillan, 2013), Chapter 1.
[14] V.L. Nekrasov, E.A. Hromov, "N.S. Hrushev i Novaya Energeticheskaya Politika (Vtoraya Polovina 1950-h- Pervaya Polovina 1960-h gg.) : Vlast`, Reformi, Ideologiya", **Bulletin of Tomsk State University**, No. 349 (2011),

Kremlin decided to reorganize the Main Directorate of the Gas Industry (Glavnoye Upravleniye Gazovoy Promyshlennosti pri Sovete Ministrov SSR or abbreviated Glavgas SSSR) that was established in 1933 by decentralizing the electric and gas industry of the USSR[15].

Thus, thanks to the green light given by the Soviet government, the natural gas industry was able to grow further, though a considerable amount of gaseous fuel was already produced (10.4 bcm) in the 1955s. As a result, Moscow was first in Europe and second in the world (after the United States) in natural gas production[16]. The Cold War leadership of America in gas production was diplomatically used by the Soviet leading gas men as "a rhetorical tool that could be deployed to promote natural gas and secure support from the highest political level"[17]. In this regard, aforesaid gas men`s statements were fueled by appeals to prove the world that natural gas could be better operated in a socialistic country, rather than a capitalistic one[18]. These high motivated calls were not just an empty propaganda. Soviet gas production volumes, in fact, underwent significant changes: the total amount of extracted natural gas made 10.4 bcm in 1955, while by 1965 this number increased to 127.7 bcm, by 1970- to 198 bcm [19].

Generally speaking, during the first stage (1913-1960) the Soviet gas sector witnessed:

- The establishment of a national energy grid, which started from two main gas fields in Ukraine – Dasheva and Schebelinka[20]. These fields were interconnected with six other socialistic republics, such as Russia, Ukraine, Belarus, Latvia, Lithuania and Moldova. As an additional source, the "Friendship of the Peoples" ("Druzhba Narodov") pipeline was constructed

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http://journals.tsu.ru/vestnik/&journal_page=archive&id=862&article_id=5858 [19.07.2015]; V. Karpov, "Neft` i Gaz v Promyshlennoi Politike SSSR (Rossii)", **Bulletin of Nizhnevartovsk State University**, No.4 (2010), http://cyberleninka.ru/article/n/neft-i-gaz-v-promyshlennoy-politike-sssr-rossii [20.03.2015].

[15] V.L. Nekrasov, E.A. Hromov, op.cit.

[16] E.Ovcharenko, "Stanovleniye i Razvitie Gazovoi Promishlennosti v Rossii (1913-1975gg)", 69.

[17] Per Högselius, op.cit, Chapter 1.

[18] Ibid.

[19] A.A. Korshak, A.M. Shammazov, **Osnovi Neftegazovogo Dela** (Ufa: OOO "DizainPoligrafServis", 2005), 50-51.

[20] Though the Ukrainian gas fields supplied with its gas almost six republics of the USSR, in comparison to the *Russian* Soviet Federative Socialist Republic (RSFSR), it produced much less gas.

in 1959, which transferred Azeri gas to Tbilisi and Yerevan[21]. It is worth pointing out that despite the fact that all "Phase-One" Soviet pipelines linked up different parts of the USSR, most of them were relatively small in size and located near gas sources of potential customers[22].

- A gradual replacement of the pre-revolutionary and post-war dominant sources of energy, such as coal by gas. By way of illustration, a share of coal in the Soviet energy complex during the period of 1950 and 1973 gradually decreased from 66.1% to 33%, whereas a share of the gas industry, in contrast, went up from 2.3% to 19.2%[23].
- An increase of overall gas production. In 1950 the total amount of produced gas made 6.2 bcm, in 1955- it rose to 10.4 bcm and in 1960- to 47.2 bcm respectively[24]. However, the increase of gas extraction automatically meant an increase in number of pipelines. During the construction of which, the Soviet Union faced a lack of infrastructure, that is, a shortage of steel pipelines and compressors, which Moscow then had to purchase from West European countries[25].

Putting it short, during the time frame 1913-1960 Moscow had been "heating up" before "a big surplus for export" to the Western bloc. During this period, Moscow comprehended the potential of natural gas and took its first steps towards rapidly developing the gas industry.

In the second stage, "born" Soviet natural gas had been further developed and became prevalent in the overall Soviet energy complex. It was during this time frame when Soviet gas, or as Per Högselius called "red gas", for the first time crossed the Iron Curtain, thanks to Soviet gas exports to Austria, Italy, West Germany, Finland, France

[21] Per Högselius, op.cit, Chapter 2.
[22] "Razvitie i Razmeshenie Gazovoi Promyshlennosti Rossii", http://www.yatp.ru/stati/razvitie-i-razmeschenie/index.php [12.03. 2015].
[23] E.Ovcharenko, "Stanovleniye i Razvitie Gazovoi Promishlennosti v Rossii (1913-1975gg)", 70.
[24] Ibid.
[25] Per Högselius, op.cit, Chapter 2.

and so on[26]. Another attribute of the second phase is that since the 1960s, the Kremlin`s focus shifted from the existing gas fields in Western parts (Ukraine, Samara, Volga/Urals etc.) of the USSR to the east of the country**,** as shown in figure 1. This is because large gas fields were discovered in several Eastern regions of the country: in Western Siberia- Punginskoye, Zapolyarnoe, Medvezh'ye and Urengoy; in the Komi Autonomous Soviet Socialist Republic (Komi ASSR) - Vyktylskoe[27] and in Turkmenia[28] - Achakskoe, Nayipskoe and Shatlykskoe. In addition, after the discovery of the resources the Soviet authorities decided to link existing infrastructures in Ukraine, which sources at that time were diminishing, with newly discovered Siberian fields, and change continued downtrend in Ukrainian gas fields[29]. This fact, as Susanne Nies argues, allowed Ukraine, in contrast to other western republics of the USSR, to profit solely from new gas networks and infrastructures of Western Siberia. According to the author, this fact explains why Ukraine started to play a significant role in the East-West exports relations[30].

It goes without saying that new Siberian gas fields brought about a significant increase in overall gas production of the Soviet Union. As a result, just from 1960 to 1970, gas production quadrupled from 45.3 bcm to 197.9 bcm[31]. As the USSR Gas Industry Minister Orudzhev remarked, soaring gas production was only possible thanks to the newly discovered gas fields in the Tyumen Region in Western Siberia, which proven reserves at that times constituted up to 70% of total Soviet gas reserves[32].

[26] S.M. Emel`yanov, "30 Let Na Mirovih Rinkah", **"Diplomasticheskii Vestnik" Journal** (2003), http://archive.mid.ru//bdomp/dip_vest.nsf/19c2fdee616f12e54325688e00486a45/befbe960c4bc73b0c3256d35004359e3!OpenDocument [19.07.2015]; for more details see Chapter 2.3.
[27] V. Karpov, op.cit.
[28] Sabit Orudzhev, **Gazovaya Promyshlennost` po Puti k Progressu (**Moscow: Nedra, 1976), 32.
[29] Nadejda M. Victor, David. G. Victor, "The Belarus Connection: Exporting Russian Gas to Germany and Poland", **James A Baker III Institute for Public Policy, Stanford University**, Working paper 26: 6, http://pesd.fsi.stanford.edu/sites/default/files/Yamal_final.pdf [25.03.2015].
[30] Susanne Nies**, Oil and Gas Delivery to Europe: an Overview of Existing and Planned Infrastructure** (Paris: IFRI, 2011), 15.
[31] Ibid.; Sabit Orudzhev, op.cit, 27.
[32] Sabit Orudzhev, op.cit, 12.

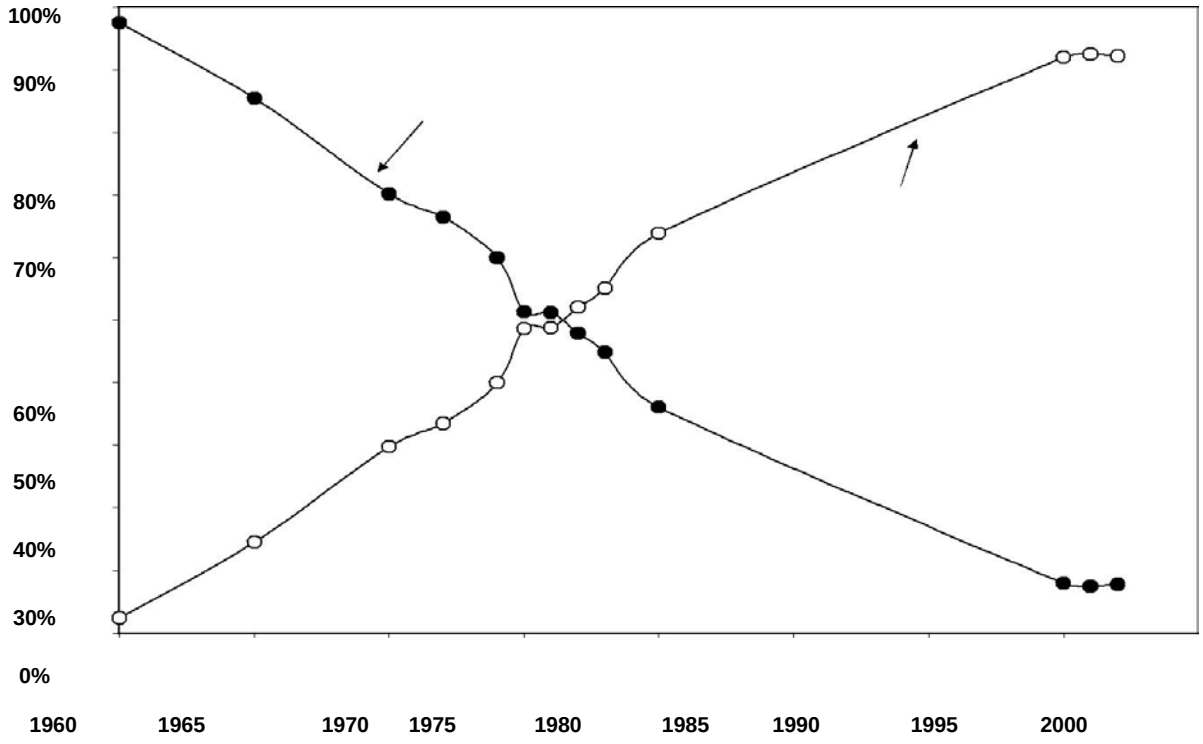

Figure 1: Geographical Shift in the Soviet Union`s Internal Gas Supply

Nadejda M. Victor, David. G. Victor, "The Belarus Connection", op.cit.

Due to this, starting from the 1970s, all efforts of Soviet leading gas men were focused on the development of large deposits of Western Siberian natural gas. As a result, in comparison to other energy sources, a share of natural gas in the Soviet energy complex was growing rapidly[33] (see Table 2). This fact respectively allowed the USSR not only to satisfy its domestic gas needs, but also to start its "career" as a West European gas exporter, which it successfully commenced in 1968, by signing its pioneering contract with Austria. Later on, this list of customers was expanded to West Germany (1970), Italy (1969), Finland (1971), etc.[34]

The 1980s were when flows of "blue gold" became more important in the USSR. Actually, it was projected that during this decade Soviet oil exports would be replaced by red gas exports. Data for the year 1981 showed that oil exports had actually

[33] E.Ovcharenko, "Stanovleniye i Razvitie Gazovoi Promishlennosti v Rossii (1913-1975gg)", 71; V.Karpov, op.cit.
[34] S.M. Emel`yanov, op.cit.

decreased, whereas natural gas exports were increased to 13 percent in the Soviet Union[35]. This became possible because of newly discovered gas fields in Turkmenistan, Astrakhan, Tyumen and Orenburg Regions. As a consequence, the total amount of extracted Soviet natural gas reached 435.2 bcm in 1980. Due to the accelerated development of the Soviet gas industry seen in the subsequent years, the Soviet Union had already achieved the leading position in natural gas production in 1984[36]. By the end of the decade, the overall amount of produced Soviet gas reached a record high — around 800 bcm[37]. So, it can be concluded that the second phase of Soviet gas industry development ended on a high note.

Table 2: Shares of Oil, Gas and Coal in the Energy Complex of the USSR (in %)

Years	Oil	Gas	Coal
1950	17.4	2.3	66.1
1955	21.1	2.4	64.8
1960	30.5	7.9	53.9
1965	35.8	15.5	42.7
1970	41.1	19.1	35.4
1971	41,8	19.5	34.6
1973	43,2	19.9	33.0

E.Ovcharenko, "Stanovleniye i Razvitie Gazovoi Promishlennosti v Rossii (1913-1975gg)", 71.

Notwithstanding the high rates of gas production growth, it is worth recalling that there was also another side of the coin, as discoveries of gas reserves were only half the job of the Soviet Union. The extracted gas should also be transported to potential customers through the vast territory of the USSR. In order to do so, the Soviet government had to arrange an interconnected pipeline grid for the construction of which, steel pipes, compressor stations and other types of equipment were required. But due to

[35] Robert V.Roosa, Michya Matsukawa, Armin Gutovski, **East-West Trade at a Crossroads: Economic Relations with the Soviet Union and Eastern Europe** (New York and London: New York University Press, 1982), 38, http://www.trilateral.org/download/doc/east_west_trade_crossroads.pdf [19.07.2015].
[36] GAZPROM Mezhregiongaz Kazan`, http://www.tatgazinvest.ru/razdel/7/ [21.03. 2015].
[37] Giprospecgaz Open Joint Stock Company, http://www.gsg.spb.ru/node/47 [21.03. 2015].

the Soviet-type economic planning, it was always difficult to purchase required machinery and equipment, since they were not always available. Even when the official support of Khrushchev was gained in 1956, Soviet gas industry still faced a pipe deficit, as the Soviet metallurgy sector was slow and undeveloped[38]. Therefore, the Kremlin had no option but to import all necessary technology from Western European countries on a barter basis: Moscow acquired Western currency and equipment, the Western Bloc, in return, received red gas[39]. This barter-type of business accelerated the process of integration between the USSR and Western European states and laid the foundations for interdependence of the parties, details of which will be discussed in the next subchapter.

The third phase of the Russian gas industry evolution started after the collapse of the Soviet Union, and end of the Cold War. As Dmitrii Orlov[40] concluded during this time frame successor of the USSR, Russia, was projected to transform from the status of an energy exporter (in our case, gas) to an energy superpower. In order to reach this aim, in the words of the author, Russia, firstly, should have control over energy infrastructures not only within the country, but in the newly independent countries of the former Soviet Union (FSU). Secondly, it has to safeguard its sovereignty. Thirdly, the Russian state needs to launch an appropriate policy. And finally, Russian energy resources should be under the state control[41]. Interestingly, some Western analysts, for instance, David Ignatius, also referred to Russia as "the global capital of energy"[42]. However, owing to the fact that all these forecasts were made before the 2014 Ukraine-crisis and anti-Russian sanctions, it does not seem unreasonable to suggest that nowadays these optimistic predictions, despite large gas reserves of Russia, are unlikely to be realized. The anti-Russian sanctions involve financial restrictions and prohibition of energy technology transition, which Russia desperately needs in order to develop its gas sector. Nevertheless, it could be safely concluded that even after the Soviet Union`s fall, Russia has continued to play a significant role in the global energy market.

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[38] Per Högselius, op.cit, Chapter 1.
[39] Susanne Nies, op.cit, 17.
[40] Dmitry Orlov, "Bit` li Rossii "Energeticheskoi Sverhderjavoi"", **Izvestiya**, 17 January 2006, https://archive.today/20120803081509/www.izvestia.ru/comment/article3054583/ [22.03.2015].
[41] Ibid.
[42] Fiona Hill, "Russia: The 21st Century`s Energy Superpower?", **Brookings**, Spring 2002, http://www.brookings.edu/research/articles/2002/03/spring-russia-hill [20.03. 2015].

This section attempted to show how the Soviet gas industry emerged and developed. The subchapter`s main conclusion is that, the Kremlin, thanks to enthusiastic gas men and Western equipment and know-how, made a considerable breakthrough in developing its gas industry: as we have seen, at the beginning of the first phase (1913-1960) the overall amount of extracted gas constituted only 0.2 bcm, while at the end of the second phase this figure was as high as 800 bcm. In the next subchapter we will consider how this increase in gas production reflected on Soviet- European trade relations.

2.3. Origins of European Energy Dependence: Western and Eastern Blocs Energy Trade with the USSR

2.3.1. Soviet Gas Trade within the Eastern Bloc

It is commonly accepted that the first export pipeline that traded Soviet oil to the other members of Council for Mutual Economic Assistance[43] was Druzhba (Friendship), a pipeline which was constructed during the period of 1959-1964, and transported the Soviet gas, first, from the USSR to Eastern Germany, traversing the territory of the Russia, Belarus and Poland, and later to Czechoslovakia through Ukraine and Belarus[44]. These pipelines, as Russian analysts state, did not aim at gaining any commercial profits, but on the contrary, supplied the Soviet gas on a non-commercial base[45]. Therefore, the pipeline was mostly significant from a political perspective as the Soviet Union targeted

[43] Council for Mutual Economic Assistance (further CMEA) is an economic confederation, which was founded by the Soviet Union, Bulgaria, Czechoslovakia, Poland, Romania and Hungary in 1949. Later on this list was extended by German Democratic Republic (GDR) in 1950, Mongolia in 1962, Cuba in 1972, and Vietnam in 1978. Yugoslavia became the part of the CMEA but as a partner in 1965. The main aim of the CMEA, according to Russian press, was to enhance economic collaboration and provide mutual assistance within its members. V. Elisabeth Bekmann, Jarko Fidrmuc, "Oil Price Shock and Structural Changes in CMEA Trade: Pouring Oil on Troubled Waters?" **The European Journal of Comparative Economics,** Vol. 9, Issue 1 (2012): 31-35.

[44] Nataliya Esakova, op.cit, 155; Susanne Nies, op.cit, 15.

[45] Although, according to some western sources, this question could be disputed, since as they state "intra-CMEA trade had been favorable [only] to the Soviet Union, that the Soviet Union had been exploiting other CMEA members and that it was able to do so because of its military power". V. Elisabeth Bekmann, Jarko Fidrmuc, op.cit, 35-37.

to provide the CMEA members with oil for the reduced prices in order to increase economic and political dependence of the CMEA members on the Kremlin[46].

In regard to Soviet- Eastern Block gas relations, the Soviet Union commenced to supply its socialist neighbors with gas in order to ensure the Soviet Union`s political and economic integration with the newly appended territories of Poland, Lithuania, Latvia and Estonia. Therefore, as mentioned earlier, the Kremlin started to provide its gas to Belarus (1960), Lithuania (1961), Latvia (1962) and Moldova from the Dashava and Schebelinka gas fields. However, one must remember that Soviet gas was already exported to Central and Eastern Europe, namely to Poland, much earlier in 1949 but in small volumes[47]. But since the 1949 Polish pipeline had not been well analyzed neither in Western nor in Eastern studies, it is often argued that the first pipeline that linked the Soviet gas with other members of the CMEA was constructed in 1964 — "Bratstvo" (Brotherhood, Fraternity) pipeline. Originated in Western Ukraine, the "Bratstvo"`s principal duty was to provide Czechoslovakia with "Schebelinka-gas" until the Siberian gas became available. In accordance with the 1964 Soviet-Czech contract, it was estimated that in 1967 the Kremlin was to import 270 million of cubic meters (mcm) of gas to Czechoslovakia. Later on, this figure was projected to rapidly increase, from 500 mcm in 1968 to 1 bcm in 1970. Furthermore, since the estimated gas volumes could not fully meet Czechoslovak domestic needs, a second gas contract had to be signed in 1967. This time the Soviet Union, starting in 1970, had to export an additional 1.5 bcm, therefore, a total annual Czechoslovak export would amount to 2.5 bcm[48]. From the Czechoslovak perspective, it could be argued that these volumes were sufficient for its domestic necessities, though, from the Soviet perspective — the projected amount of gas imports in relation to total Soviet gas reserves was very marginal. However, from a general standpoint, the Soviet-Czechoslovak gas pipeline had played an important role in the global gas industry. Actually, its construction paved the way for integration within the Eastern Bloc and prepared favorable conditions for the Soviet entrance into Western

[46] S. Zhiznin. "Nujna li Rossii "Druzhba"? **Nezavisimaya Gazeta,** 9 February 2010, http://viperson.ru/wind.php?ID=620314&soch=1 [22.03. 2015].
[47] Jonathan Stern, "Natural Gas in Europe -The Importance of Russia", **Centrex,** http://www.centrex.at/en/files/study_stern_e.pdf [2.03.2015]; Susanne NIES, op.cit, 17.
[48] Per Högselius, op.cit, Chapter 8.

markets, since via this route Soviet gas was transported across the Iron Curtain to Austria in 1968.

As outlined earlier, the Brotherhood pipeline`s main mission was to supply Czechoslovakia with Ukrainian gas on a temporary basis until estimated Siberian gas fields were ready to be exploited. However, Siberian abundant gas did not arrive as quickly as estimated. Due to the lack of long-distance pipelines that could bring the gas from the Eastern part of the USSR to the western one, and inefficiency of the Soviet metallurgy industry to produce pipelines, Siberian gas development had been hampered until the mid-1970s. Until that time the Soviet Union fulfilled its export obligations to Austria by Ukrainian gas fields, which were already overexploited. As a consequence, the socialist republics and states, who were mostly dependent on Ukrainian gas such as Belarus, Latvia, Lithuania, Poland Czechoslovakia, found themselves in a difficult situation, since the Schebelinka and Dashava gas fields were depleting at a dangerous rate. Moreover, after red gas exports to West Europe commenced, these countries started to often suffer from an insufficient and irregular supply of Soviet natural gas[49].

With the solution of the transportation problem, the discovery of super-giant fields in Medvezh`ye, Urengoy, Zapolyarnoe, etc. in 1970s, as it has been seen, the problems of gas depleting in Ukrainian SSR and the gas shortage in Eastern and Central Europe, respectively, had been partly solved (see Chapter 2.1). Therefore, it could be claimed that starting in the 1970s the general situation in the CMEA members was improved and imports of Soviet gas boomed. As a result, as of 1973, some counties of the Eastern bloc, like Poland, Hungary, Czechoslovakia and Eastern Germany, became principal Soviet gas customers, whereas some of them - just started to export Soviet gas, Bulgaria is a case in point.

With the signing of the multilateral contract (1974) between the founding members of the CMEA, the situation changed radically. The estimated pipeline, nicknamed “Soyuz” (Union)[50], was to transport Soviet gas from Orenburg to Central and Eastern Europe. In fact, the nickname Soyuz was not given by accident, since the pipeline was constructed with the joint efforts of workers and engineers from Poland,

[49] Ibid., Chapter 6.
[50] Susanne Nies**,** op.cit, 17; Nataliya Esakova**,** op.cit, 157.

Hungary, Bulgaria, Romania, Czechoslovakia and East Germany. Each of these countries was obliged to construct a definite part of the pipeline; in return, they were to receive 2.8 bcm per annum. The gas already commenced to flow in 1978 and hit a plateau in 1980. Later on, the list of Soyuz-exporters was enlarged by Yugoslavia, which was used in Serbia, Bosnia-Herzegovina and Vojvodina[51]. It is also significant to mention that gas, dedicated to CMEA countries, was sold at more reduced prices and through a complex barter system, whereas Soviet Union`s Western customers had to pay hard prices[52].

To sum up, by the end of the second phase of Soviet natural gas development (see Chapter 2.2.) mostly all USSR republics and socialist neighbors were tightly interconnected with each other and were highly dependent on their "Soviet parent." Moreover, all gas routes, which were used for Soviet exports to Eastern and Western Blocs, crossed the territory of either Soviet republics (Ukraine is a case in point) or CMEA members, therefore, any problems regarding transit risks did not come up[53]. During the Cold War, the Eastern Bloc`s energy reliance on the USSR was not so problematical, after the collapse of the Soviet Union and Eastern Bloc, the problem of dependence on Russian gas imports, as transit countries issue, became one of the crucial topics.

2.3.2. West European-Soviet Energy Relations

Why did Western European countries start to collaborate with their political adversary during the Cold War? Perhaps nowadays this question does not make any sense for analysts, but if the question was to be asked fifty years ago, it would have been a controversial issue. It goes without saying that there should be plenty of facts and objectives of the parties, which have pushed them to cooperate with the USSR (see next section), but one of the main reasons why Western European countries initiated to export red gas was because of their geographical location.

[51] Per Högselius, op.cit, Chapter 10.
[52] Nadejda M. Victor, David. G. Victor, "Bypassing Ukraine: Exporting Russian Gas to Poland and Germany" in **Natural Gas and Geopolitics: From 1970 to 2040**, ed. by David G, Victor, Amy M. Jaffe, Mark H. Hayes (Cambridge: Cambridge University Press, 2006), 132.
[53] Nadejda M. Victor, David. G. Victor, "The Belarus Connection", 12.

In the 1960s most of the European countries were exporting their gaseous fuels either from the Netherlands or Algeria. For some countries, to name but a few, Spain, Portugal and southern parts of Italy, to export Saharan gas appeared to be the most logical decision, since they are geographically close to the African continent. As for Belgium, Britain (which was a gas producer itself), and Northern Germany, Dutch gas was much more attractive and profitable than Saharan gas. However, there was another group of countries, for which neither of the two alternatives was suitable, since they are located in the middle of the continent. France, Switzerland, Austria, southern parts of Germany and northern Italy are classic examples of such in-between markets. As one might expect they needed a third alternative, which happened to be the Soviet Union[54].

At that time, Soviet gas was growing rapidly and seeking up-to-date Western technology that was needed to investigate not-yet-discovered gas fields. The first country that took this opportunity was Austria, which decided to export red gas after the USSR signed the gas contract with Czechoslovakia, a neighbor of Austria. Austria, thus, was a pioneer in importing red gas among Western European countries. The Austrian-Soviet negotiations had begun in the mid-1960s and triggered, as outlined earlier, the construction of the "Brotherhood" pipeline. However, the contractual arrangements were only finalized in 1968. According to the long-term contract, the Soviet Union was to export 0.12-0.19 bcm of natural gas in 1968. These figures were to increase gradually, so in 1969 Austria was to receive 0.75 bcm, in 1970-0.93 bcm and in 1971- 1.40 bcm. Overall, Austria was anticipated to import 30 bcm of natural gas for the contractual period of 23 years, or, until 1991[55].

The conclusion of the Austrian-Soviet contract was very significant from the standpoint of both parties. As for Austria, which for the time being was suffering from depleting gas fields, red gas came at the right moment: starting in the 1960s its major gas fields reached their plateau, while domestic gas demands were increasing. With regard to the Kremlin, it understood the Austrian-Soviet gas trade as a reference for other Western countries, the success of which would directly influence the success of Soviet gas exports as a whole. Therefore, it did its utmost to fully live up to its export

[54] Per Högselius, op.cit, Chapter 3.
[55] Ibid., Chapter 4.

commitments, even though the Kremlin had to make many efforts and sacrifice a lot[56]. Thus, the Austrian red gas exports, though they constituted the small volumes, paved the way to the Soviet-West European gas collaboration.

Starting in the 1970s the situation had drastically changed, since the list of Soviet sole gas importers was increased by other West European countries such as Italy, Western Germany, Finland, France. etc. This change was due to the following reasons:

- Gas became dominant in overall energy complex in some countries, in particular in the Soviet Union. This fact was accelerated by the discovery of giant gas fields in Western Siberia, Komi ASSR and Turkmenia (see Chapter 2.2);
- The first oil crisis had happened, in the aftermath of which European states started to have concerns about their dependence on imported fossil fuels from the Middle East and were aware of the necessity to diversify oil supplies. Moreover, after the 1973-74 oil crises, it became obvious that energy importers could use energy imports as a "weapon" at any time and shut off supplies due to political or economic reasons. However, with regard to the USSR, it was concluded that "long-term disruptions stand against the self-interest of the USSR"[57]. Owing to this fact, the USSR was regarded as a reliable supplier[58].

All these events were favorable to "blue fuel", due to which Soviet gas was rapidly expanded to Western European markets by signing 11 gas contracts with Western European countries during 1968 and 1977[59]. In order to understand the nature

[56] As it was mentioned earlier, most of the domestic gas demands of the USSR and its socialist satellites were met by Ukrainian gas fields in Dashava and Schebelinka, which due to the overexploitation started to deplete. With the signing of Czechoslovak-Soviet and Austrian-Soviet gas contracts the situation got even worse, since now the already decreasing gas fields had to supply gas to these countries too until the Siberian giant gas fields would be available. But owing to the fact that implementation of Siberian gas project was behind schedule, the domestic gas users in the USSR suffered from insufficient gas supply and gas interruptions, which, in turn, triggered the republics to close some plants, schools, etc. Ibid.
[57] Per Högselius, op.cit, Chapter 10.
[58] Nataliya Esakova, op.cit, 156.
[59] Thane Gustafson, "Soviet Negotiating Strategy: The East-West Gas Pipeline Deal, 1980-1984" (The Rand Corporation, 1985), http://www.rand.org/content/dam/rand/pubs/reports/2007/R3220.pdf [14.03.2015].

of these contracts and Soviet-West European gas trade, a brief analysis of French, West German and Italian gas deals is presented below[60].

West Germany. The case of West German-Soviet gas trade can concluded as a significant event in the history of international relations, because, firstly, it was a good example of Western-Eastern interdependence, and secondly, it served as a catalyst in West-East rapprochement[61]. From the political perspective, the gas pipeline became one of the important components that constructed a pioneer bridge between isolated markets of the CMEA and the Western Bloc: divided Germany and Berlin were one of the powerful indications of the fact that Cold War Europe was divided, therefore, establishment of cooperative relations between political adversaries (in particular, between East and West "Germanys") could be accepted as a breakthrough[62].

The first gas-pipe contract between the parties was signed in 1970. According to the contract, the USSR was to export 51.5 bcm of gas over a 20-year period starting in 1973. The trade was to be realized on a "gas-for-pipe" basis, when the Soviet Union traded its gas exports for German steel pipes. In this respect, the first major exchange had occurred in 1970, when more than 1.2 million tons of steel pipe were exported to the East[63]. However, generally German companies started to export the pipes in 1958[64].

With the signing of subsequent contracts in 1972 and 1974 Soviet gas exports to West Germany had increased more; thus, in 1979 the Federal Republic of Germany (FRG) imported more than 9.8 bcm of Soviet natural gas annually, while in 1974 this figure made only 2.1 bcm. As table 3 below shows, this constituted about 24 % of the

[60] This group of countries had been intentionally selected in order to show how West European and Soviet interdependence had emerged. Nowadays Italy, Germany and France represented a group of countries that are exhibiting medium energy dependence on Russia. V. Nataliya Esakova, op.cit, 163.
[61] "West European-Soviet Energy Relations" in **Technology and Soviet Energy Availability, Congress of the United States of Technology Assessment (**New York: OTA, 1981), http://babel.hathitrust.org/cgi/pt?id=umn.31951d00810869x;view=1up;seq=5 [10.03. 2015].
[62] Jonathan Stern, "Gas Pipeline Co-operation between Political Adversaries: Examples from Europe", **Chatham House,** January 2005, https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/jsjan05.pdf [2.03.2015].
[63] "West European-Soviet Energy Relations", 355-360.
[64] Bogdan Musial, "Die Westdeutsche Ostpolitik und der Zerfall der Sowjetunion", **Bundeszentrale für Politische Bildung**, 8 February 2011, http://www.bpb.de/geschichte/zeitgeschichte/deutschlandarchiv/54107/ostpolitik-und-zerfall-der-su?p=all [21 July 2015].

overall gas imports of West Germany[65]. Thus, even at a time of East-West political, cultural and ideological antagonism, Germany had been the USSR`s main gas buyer.

It is significant to mention that none of these developments could have taken place without the official support of the state that was gained as a result of Willy Brandt and Egon Bahr`s Ostpolitik. According to Angela Stent, Brandt decided to choose the path of rapprochement with the East, because of the fact that he thought Western Germany`s non-recognition of Eastern Europe`s existence decreased the FRG`s bargaining power. In order to correct the situation and strengthen intra-German relations, Brandt applied Ostpolitik[66]. As a result, thanks to Brandt`s new policy FRG improved its relations with GDR.

France. In contrast to the FRG, France and the Soviet Union were interconnected with each other neither politically nor economically, since there was no city like Berlin in France, and it never was the USSR`s major supplier of energy equipment. However, since all Soviet-West gas exports were based on the "gas-for-pipe' basis, the Kremlin imported French steel pipes and exported its gas to France[67].

The first two contracts were signed in 1975, and starting from 1976 Soviet gas exports commenced to flow via the Slovakian-Austrian border. The subsequent deal was within 8 years, according to the provisions of which Soviet gas was to be delivered through the Czech-German border[68]. In 1979, France imported 1,9 bcm of Soviet gas — about 10% of the overall gas imports during that year. Therefore, it can be concluded that French dependence on Soviet gas, in contrast to West Germany's, was modest[69].

Italy. As it can be seen from table 3, Italy in 1980s was recognized as the Soviet Union`s major gas importer, since Soviet gas exports constituted more than 43% of Italian total imports. In addition, Italy, like Germany, was the Kremlin`s major supplier of energy related equipment since the early 1960s.

[65] "West European-Soviet Energy Relations", 360.
[66] Angela Stent, From Embargo, op.cit, 154-155.
[67] "West European-Soviet Energy Relations", 361-363.
[68] OOO Gazprom Export, http://www.gazpromexport.ru/en/partners/france/ [24.03.2015].
[69] "West European-Soviet Energy Relations", 363.

Table 3: Energy Reliance of the Western Bloc, 1979 (in million tons of oil equivalent/mtoe)

	Oil and oil products	**Gas**	Hard coal	Total energy
FRG				
Total energy needs	145.4	49.6	833	283.3
Total energy imports from the world	150.8	33.5	6.0	190.3
Total imports from the Soviet Union	9.3	8.0	0.1	17.4
Imports from USSR, percent of total imports	6.2%	**23.9 %**	1.7%	9.1%
Imports from USSR as percent of total energy requirements	6.4%	16.1 %	0.1%	6.1%
FRANCE				
Total energy needs	117.8	22.7	34.2	184.9
Total energy imports from the world	139.1	16.1	20.2	176.8
Total imports from the Soviet Union	6.5	1.6	0.5	8.6
Imports from USSR, percent of total imports	4.7%	**9.9 %**	2.5%	4.9%
Imports from USSR as percent of total energy requirements	5.5%	7.4%	1.5%	4.7%
ITALY				
Total energy needs	93.4	24.1	10.6	132.5
Total energy imports from the world	120.9	13.2	9.1	143.8
Total imports from the Soviet Union	6.8	5.7	0.6	13.1
Imports from USSR, percent of total imports	5.6%	**43.2 %**	6.6%	9.1%
Imports from USSR as percent of total energy requirements	7.25	23.7 %	5.7%	9.9%
UNITED KINGDOM				
Total energy needs	90.3	43.2	87.2	224.0
Total energy imports from the world	70.4	8.2	3.0	81.6
Total imports from the Soviet Union	2.9	-	-	2.9
Imports from USSR, percent of total imports	4.1%	-	-	3.6%

Table 3 – continued

Imports from USSR as percent of total energy requirements	3.2%	-	-	1.3%

Jonathan Stern, "Natural Gas".

As we have seen from these examples, the Kremlin`s main Western European customers commenced to import Soviet gas since the 1970s. Therefore, it is sometimes argued that the 1970s were the years, when Europe was seen as having "fallen in love with [Soviet] natural gas"[70] .

In the 1980s the Soviet gas was not accepted any more as a supplementary fuel, since due to the development of the Siberian projects, the existing list of European gas buyers was extended by new customers, for instance, Turkey (1986) and Greece (1987); and volumes of gas exports of "old" customers were scaled-up. As a result, by 1990, West Europe imported a total of 63 bcm of Soviet natural gas, whereas only 10 years ago this figure was equal to 26 bcm[71]. Nevertheless, the Soviet Union supplied only a small proportion of West European`s natural gas demand. Therefore, the role of Soviet gas in these countries was not as crucial as in East European countries[72].

To sum up, the East-West gas trade — which was realized on a basis of the gas-for-pipe countertrade deal — started in the mid-1960s because of the Austrian-Soviet gas contract. As a result of which, Soviet natural gas, for the first time, crossed the borders of the Iron Curtain. The Austrian gas exports served as a reference for the Soviet Union, therefore, the Kremlin, despite the shortage of gas in its own republics and socialist satellites, did everything possible to fulfill its export obligations. As we have seen, all the Soviet efforts were not in vain and the Austrian contract, in reality, had been an example to other countries of the Western Bloc, since right after the first successful Soviet gas flow, some European countries commenced their negotiations with the Kremlin: West Germany, Italy and France, to name but a few. Thus, the Soviet Union managed to establish eleven export contracts with Western European countries in quite a

[70] Per Högselius, op.cit, Chapter 10.
[71] Jonathan Stern, "Natural Gas".
[72] Robert V.Roosa, Michya Matsukawa, Armin Gutovski, op.cit, 37.

short time (from 1968 to 1977). This European desire for natural gas, however, was not unreasonable; it was motivated by definite reasons, which will be discussed later.

It is worth pointing out that the Western Bloc had to purchase Soviet "blue gold" at a much higher price in comparison to the Eastern Bloc. Because, as a matter of fact, the main purpose of the CMEA was to intensify cooperation between members of the Warsaw Pact. However, it is not accurate to state that the Kremlin supplied cheap gaseous fuel to its "communist comrades" only for a noble reason: Soviet energy exports were used as a political tool to increase the Eastern Bloc`s dependence (for details see Subchapter 2.4). As outlined earlier, this target was achieved by the end of the 1970s, when practically all the USSR`s socialist satellites were dependent on Soviet gas (with a start-up of the "Union" gas pipeline).

In short, by the fall of the Berlin Wall, both Western and Eastern Blocs were dependent on Soviet/Russian gas, though on different levels. In the subsequent chapter we will consider the key objectives of such kind of interdependence in more detail.

2.4. Soviet Energy Policy vis-à-vis European Countries and vice-versa: What Lies behind the Trade

2.4.1. West-European and Soviet Gas Trade from the Western Perspective

As we have seen from the previous sections, West European countries became the USSR`s major gas importer, while the Soviet Union – the Western Bloc`s main buyer of energy equipment in such a short span of time. By doing so, the parties increased interdependence with each other.

How did the Eastern and Western blocs, despite the ongoing ideological, political and economic antagonism, manage to maintain trade relations with each other? Obviously, there should be a good reason or several reasons for that. Generally speaking, there were five significant motives for West European countries to collaborate with the Kremlin. These reasons can be found in energy, economic, political, geographical and environmental realms[73].

[73] "West European-Soviet Energy Relations", 355-357, p.361, 363-364, 367-368.

In the energy realm, the Soviet Union`s western customers referred to "blue gold" as a new energy source which could diversify their energy mix. Owing to the fact that a majority of European countries were utilizing coal and oil as a major fuel during that time, most European states were enthusiastic about changing them to a more innovative fuel like gas. Moreover, Soviet energy — especially natural gas — proposed an alternative for some Western energy planners, which were keen on decreasing their energy (oil) dependence from the Middle East[74]. These kinds of West European ambitions, later, had been accelerated by the oil crises, in the aftermath of which most European energy importers had to rethink their energy policy with their major oil supplier and question its reliance. In the event of more oil crises, including oil supply disruptions, most of the European gas leaders decided to diversify away from oil which was mainly imported (and still imported nowadays) from the Middle East. Soviet natural gas, in this case, was part of the solution and the problem. "Blue gold" from the USSR was a resolution, because by importing it the West European countries could reduce dependency on the Arab oil. Similarly, it could be the source of a problem, since it was not guaranteed that the Soviet Union would not follow suit and disrupt gas supplies once the Western Bloc started to import it. However, as we have seen, West European countries were more prone to consider Soviet gas as a part of the solution, rather than problem[75].

[74]Robert V.Roosa, Michya Matsukawa, Armin Gutovski, op.cit, 33; Klaus Matthies, "Soviet Natural Gas-A Threat to Western Europe`s Security?" **Intereconomics,** Vol.16, Issue 5 (1981), 204. It is important to bear in mind that not all of the West European countries "had suffered' from import dependency on the Middle East. Take, for instance, the United Kingdom, Norway or the Netherlands, which were more self-sufficient in energy, in contrast to other West European states. Thanks to the domestic production of energy, these countries had a very limited import reliance on the Middle East, and consequently, were marginally, if not at all, required red gas. See "West European-Soviet Energy Relations".

[75] As time went on, USSR`s Western customers were convinced about the accuracy of their hypothesis. Since the USSR never had disrupted West gas exports by politically motivated reasons during the bipolar confrontation. However, it would be a mistake to claim that there were no disruptions at all. During the first gas supplies to Austria and Germany, several gas supply disruptions did take place, but they were neither intentional nor politically motivated. The gas supply cutoffs occurred because of the Siberian gas project, gas resources of which were planned to be used for Western customers, was behind schedule. As outlined earlier, the USSR "cherished" its first gas contracts with Austria, as it planned to use them as an example for other potential Western clients. The Kremlin therefore did its utmost to not to upset its first "across-Iron-Curtain client". Therefore, the Soviet Union prioritized its Western customers rather than Eastern one. As a result of such strategy, just domestic and socialist satellites became victims of the afore-said gas supplies. V. Chapter 2.3.2.

Soviet gas was imported due to the **geographical peculiarities** of some West European countries. As was mentioned earlier, some Western Bloc`s members, namely Austria, southern Germany, Switzerland and northern Italy, belonged to the group of in-between markets – markets, which due to their geographical location did not prefer to import energy from European main energy supplies, like Algeria and the Netherlands, because of high costs. Therefore, these countries commenced to import Soviet gas as an alternative to Saharan and Dutch gaseous fuels.

Another reason for West European enthusiasm in energy relations with the Eastern Bloc is that West Europe was interdependent with the Kremlin in terms of energy machinery and equipment supply, which generated **economic reasons for cooperation**. For example, West German exports of energy-related high technology and equipment constituted 30 percent of its gross national product (GNP)[76]. As one might expect, therefore, Germany was recognized as the CMEA`s second largest supplier (after Japan) of energy-related equipment. Bearing in mind that East-West energy trade was based on a gas-for-pipe countertrade deal, it is not unreasonable to conclude that the FRG`s case was not an exclusion: all West European customers of the USSR were dependent to some extent on their equipment exports, in particularly on steel pipes exports[77], to the CMEA. As it can be seen from table 4 below, Italy was highly dependent on energy-related equipment exports, because it made up 33.5% of the total exports of Italy to the Eastern Bloc. However, as outlined earlier, the CMEA`s largest European energy equipment supplier was Bonn, because its machinery and equipment exports constituted more than U.S. dollars (USD) 900 million (see below). Moreover, the Soviet Union, by buying most of West European steel companies` production contributed, even if not intentionally, to the socio-economic development of the Western Bloc, since it created job opportunities and generated income for West European citizens.

[76] "West European-Soviet Energy Relations", 356.

[77] Steel pipes constituted the biggest "pie" of West-European energy exports to the Eastern Bloc. For instance, German steel firms Mannesmann and Salzgitter exported most of their produced pipes, 60% and 40% respectively, to the CMEA during the 1970s. The French steel firms, Creusot-Loire and Vallourec, followed suit and shipped most of their production across the Iron Curtain. Finsider, the biggest steel firm of 1970s Italy market, also exported more one-fourth of its annual production to the Soviet Union. V. Ibid, 356-357, 363, 365.

Table 4: West European Foreign Trade with the Eastern Bloc in 1979 (USD Million)

	Japan	France	FRG	Italy	United Kingdom
Energy-related exports to the Soviet Union	1.097	474	**906**	408	90
Total exports to the Soviet Union A/B	2.442 44.9%	2.005 23.6%	3.619 25%	1.217 **33.5%**	889 10.1%
Total exports to CMEA-6 + USSR	3.243	4.028	11.270	2.633	2.059
Total exports to world C/D	102.802 3.1%	97.981 4.1%	174.092 **6.4%**	72.123 3.6%	90.810 2.2%

"Energy Equipment and Technology Trade with the USSR" in **Technology and Soviet Energy Availability**, 169-225; "West European-Soviet Energy Relations" in **Technology and Soviet Energy Availability**, 353.

The most interesting fact about the economic side of the East-West trade is that these "energy-related exchanges" were vehemently objected by the United States, which was in belief that "the sale of any kind of equipment and technology which would allow the Soviet Union to earn additional hard currency was undesirable on security grounds"[78]. Due to this reason, the newly-elected American president, Ronald Reagan, had tried to persuade West European leaders not to collaborate with the Kremlin; however these attempts proved to be groundless. Therefore, Washington had no option but to impose repeat sanctions[79] against the East-West energy trade which, were not supported by most European countries[80]. Furthermore, the sanctions did not stop further development of West European-Soviet relations, but, on the contrary, enhanced their energy interdependence. Right after the US sanctions, the gas pipeline, STEGAL, was planned to be constructed, a case in point[81].

Moreover, natural gas imports from across the Iron Curtain were economically profitable to the in-market countries, since due to their geographical location they did

[78] Jonathan Stern, "Gas Pipeline".
[79] The first NATO embargo on pipes was imposed in 1962.
[80] Ibid.; For more details Angela Stent, **From Embargo to Ostpolitik: The Political Economy of West German-Soviet Relations, 1955-1980** (Cambridge: Cambridge University Press, 1981), Chapter 5; Per Högselius, op.cit, Chapter 10.
[81] Susanne Nies, op cit, 18.

not have any alternatives to the Soviet gas, and even if they had decided to import natural gas from elsewhere, the prices might have been much higher than Soviet gas. However, as Per Högselius argues, this fact does not allow us to conclude that Soviet gas was much more economical than the prices of other European gas suppliers such as the Netherlands, Libya, Algeria and Norway[82].

Another reason, which explains why the Western Bloc was so obsessed with Soviet natural gas, is **environmental possibilities.** As Per Högselius states, West European countries were always aware about the environmental advantages of natural gas, but with a rapid development of Soviet gas this aspect became more significant. Red gas, a new, relatively eco-friendly fuel, assisted the USSR`s Western customers in gradually replacing their major fuels such as coal and oil. As time went on, natural gas was partly responsible for the decrease of nuclear power`s role in the European energy market too[83]. To be blunt, the Western Bloc accepted red gas imports as part of the solution to environmental issues.

Last but not least, West European states preferred to import natural gas across the Iron Curtain on the basis of **political considerations.** The political dimension of the Western and Eastern Bloc interdependence, however, for some countries like West Germany played a significant role, while for some others it did not have much importance. From the West German perspective, the East-West trade constituted a stimulus for détente and served as a particular tool which decreased potential conflict between the East and West[84]. As Stent claims, the beginning of Ostpolitik in FRG meant that West Germany started to define its autonomous policy towards the USSR which was not looking to the United States. In line with this policy West Germany accepted the status quo of European boundaries that had been established after World War II. This means that the existence of East Germany was also recognized by West Germany. The Chancellor of the FRG Willy Brandt believed that "…Germany will not rise again and will not be able to maintain herself if she fails to find an adjustment with the East as well

[82] Per Högselius, op.cit, Chapter 12.
[83] Ibid.
[84] "West European-Soviet Energy Relations", 357; see previous subchapter.

as the West, regardless of an East or West orientation."[85] France also had a firm belief that West-East trade was crucial and mutually beneficial, since Paris, like its West German colleagues, was prone to think that interdependence between the political adversaries could enhance détente and overall French-Soviet relations[86]. Italy also had a political interest in the promotion of East-West trade, as it believed that CMEA-West European energy collaboration was mutually favorable. Moreover, Italian approach towards the Soviet Union was also influenced by the Communist Party (the PCI) which had thirty percent of the national vote,[87] and was willing to improve Italian relations with a leading communist power of the world, the USSR[88]. Thus, East-West interdependence was comprehended as a politically favorable process in most West European countries.

The main conclusion to be drawn from this discussion is that, from the West-European perspective, the East-West gas trade was reasonable, since it had many benefits, including energy, geographical, political and economic.

2.4.2. West-European and Soviet Gas Trade from the Eastern Perspective

As we have seen from the previous section, West European countries had at least five good reasons for supporting East-West energy trade. The Soviet Union, in its turn, was also generally positive about the trade, and successfully exported its gas across the Iron Curtain. In this subchapter we will consider what lies behind the Soviet enthusiasm to collaborate with Western Bloc.

As in case with the West European countries, there were a number of reasons which motivated the Kremlin to integrate with the West. These reasons could be divided into four groups such as ideological, environmental, economic and, finally, political.

The most significant of them, perhaps, is connected with the **political dimension** of the event, because it is believed that the Kremlin via exporting its "blue fold" to West European countries tried to split the USA and its transatlantic partners. As we have seen

[85] Angela Stent, **From Embargo**, 154-156.
[86] "West European-Soviet Energy Relations", 362.
[87] Ibid., 364.
[88] Per Högselius, op.cit, Chapter 12.

in the preceding pages, after the pioneering gas contract with Austria had been concluded, most of the other West European countries started to "get in line" to purchase Soviet natural gas. The Soviet Union, in its turn, having realized the extent of gas` popularity, started its gas negotiations with definite European states, intentionally ignoring and isolating West Germany, a political adversary of East Germany and the USSR. By doing so the USSR intended to punish the FRG, a loyal partner of the USA, which after the 1962 NATO pipe embargo refused to provide the CMEA with steel pipes, whereas other members of NATO, such as Italy or UK, continued to live up to their export commitments[89]. However, during the 1981 anti-Soviet sanctions on components of gas compressor stations, Bonn did not follow Washington`s suit[90]. Thus, the Kremlin was using gas exports as an indirect tool in the bipolar confrontation, that's main mission was to encourage West European independence from the United States of America (USA)[91].

The USSR met West European intentions to import red gas positively for **ideological reasons** too. By rapidly developing its gas industry and producing gas at an accelerated pace, the Kremlin intended to prove to the world that natural gas could be better operated in the Soviet Union than in Western countries[92]. Therefore, in the 1960s practically most of the Soviet political leaders and leading gas men stressed the fact that Soviet gas industry was capable of outrunning the United States, which at that time was in the leading position in gas production[93]. So, at the early stage of the Soviet gas emergence, Soviet goals could be paraphrased as "to catch up and overtake" the main capitalist enemy- the USA. In 1984, when the Soviet Union moved to first place in gas production[94], the Kremlin was able to announce its victory over capitalism. As a result, the USSR could enhance its international prestige by means of gas production and exports.

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[89] The afore-said steel pipe contracts were concluded between the Soviet Union and West European countries in 1963. In accordance with West-German-Soviet contract, Bonn was to supply the Kremlin with 163.000 tons of large-inch steel pipe, valued at USD 28 million. "West European-Soviet Energy Relations", 357. For more details see Thane Gustafson, op.cit, 2-9.
[90] Jonathan Stern, "Gas Pipeline".
[91] Angela Stent, **From Embargo**, op.cit, 156.
[92] V. Kortunov, "Gazovaya Promyshlennost` k 40-letiyu Velikogo Oktyabrya", **Gazovaya Promyshlennost`,** November 1957, 2.
[93] See Sabit Orudzhev, op.cit, 15.
[94] GAZPROM Mezhregiongaz Kazan`, http://www.tatgazinvest.ru/razdel/7/ [21 March 2015].

From the **environmental point of view**, utilization of natural gas was also comprehended as favorable. According to soviet gas enthusiasts, natural gas was a "smoke-free fuel", which in contrast to wood and coal, was able to "make the work conditions more hygienic"[95]. Motivated by these statements the Soviet Union started to develop its gas industry and achieved a surplus in gas production. This fact, as a consequence, among other reasons facilitated Soviet gas exports` commencements.

Last but not least, the Soviet Union decided to export its gas across the Iron Curtain, since gas exports to the Western Bloc could potentially become a reliable source for Soviet revenue. As time went on and the first gas-for-pipe gas contract with Austria had been concluded, this hypothesis was verified, and the Soviet Union was to earn about USD 450 million during the whole period of the Austrian-Soviet gas contract[96]. With the further expansion of natural gas into the West European market, Soviet gas earnings were increasing too. For instance, between 1975 and 1980, as amounts and prices of the Soviet gas grew threefold, Soviet profits increased nine fold[97]. Along with the hard currency revenues, the USSR also benefited from western technology by means of which the Kremlin could efficiently develop its west Siberian gas fields[98]. At such a pace, however, the USSR became highly dependent on energy exports` earnings, so by the end of the 1980s they constituted more than 62% of the Soviet Union`s GNP[99]. However, it goes without saying that energy trade with West European countries was profitable for the USSR in **economic terms** too.

In conclusion, the results suggest that East-West gas trade was of mutual benefit[100]. By exporting its gas to wealthy West European countries, the Kremlin was able to increase its hard currency revenue, enhance international prestige and influence on the political arena. The Western Bloc, in its turn, also profited from this trade, to name but a few a) it diversified its energy imports from Middle East exporters b) strengthened overall relations with the Soviet Union c) solved its environmental

[95] Per Högselius, op.cit, Chapter 2.
[96] Ibid, Chapter 4.
[97] Susanne Nies, op cit, 19; Nadejda M. Victor, David. G. Victor, "The Belarus Connection", 10-11.
[98] Nadejda M. Victor, David. G. Victor, "The Belarus Connection", 10.
[99] Susanne Nies, op cit, 19.
[100] According to Keith Crane, in case the East European-Soviet gas relations adjective "mutual" was dropped, since those relations were built on unfavorable for the USSR conditions. For more details see Keith Crane, op.cit.

problems, etc. Moscow never used natural gas` supplies for political blackmail against Western Europe, notwithstanding the hostile atmosphere that dominated during the Cold War. In the post-Cold War era, however, we have witnessed that these smooth relationships underwent considerable changes.

3. POST- COLD WAR RUSSIAN-EUROPEAN ENERGY (GAS) RELATIONS

3.1. The End of the Bipolar Confrontation and an "Other Russia"

As the 1980s drew to a close most of the West and East European countries were dependent, albeit in varying degrees, on Soviet gas. None of them had anticipated that after almost two years they would be receiving gas not from the Soviet Union, but its successor- the RF. The USSR was dissolved in one day, December 25, 1991, when Mikhail Gorbachev announced the end of the Soviet Union on television. The dissolution of the USSR was welcoming news in the West (in the United States in particular), since it was accepted as "a victory for Western interests and democratic values"[101]. However, for the Russian nation, in the words of Vladimir Putin, it was "a major geopolitical disaster of the century"[102]. Either way, one thing was obvious- there was not a Soviet Union anymore. The West was hoping that Russia, by getting rid of Soviet totalitarianism, would gradually integrate into the West and liberalize its economy. However, they had miscalculated. Instead of the anticipated "pure white and fluffy" Russia, they had faced one with a "sovereign democracy"[103], which was part heavy-industry, part high-tech economy[104]. In this hybrid Russian system the state prefers to maintain and expand its influence everywhere, energy not being an exception.

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[101] Angela Stent, **The Limits of Partnership: U.S. -Russian Relations in the Twenty-First Century**, (n.p.: Princeton University Press, 2014), 3.

[102] Annual Presidential Address of Vladimir Putin to the Federal Assembly of the Russian Federation, April 25, 2005, http://archive.kremlin.ru/eng/speeches/2005/04/25/2031_type70029type82912_87086.shtml [11.04.2015].

[103] The term is first used by the Deputy Head of the Administration of the President of Russia and aide to the President of the Russian Federation Vladislav Surkov in 2006. According to Surkov, the "sovereign democracy" is "…a society's political life where the political powers, their authorities and decisions are decided and controlled by a diverse Russian nation for the purpose of reaching material welfare, freedom and fairness by all citizens, social groups and nationalities, by the people that formed it."V. Vladislav Surkov, "Suverenitet -Eto Politicheskii Sinonim Konkurentnosposoblosti", http://web.archive.org/web/20060418035317/http://www.edinros.ru/news.html?id=111 [13.04.2015]; V.Surkov, "Nationalization of the Future: Paragraphs Pro Sovereign Democracy", **Russian Studies in Philosophy**, Vol.47, Issue 4(2009), 10.2753/RSP1061-1967470401 [11.07.2015].

[104] According to Stent, the current Russian system could be called as "Russian Inc" where Putin serves as the CEO of the Russian "Corporation". See Angela Stent, **The Limits**, 180-181.

In the energy realm, the collapse of the USSR also changed the environment of the Western European-Russian gas relations. As Nadejda and Victor David claim, there are at least three aftereffects of the Soviet Union`s collapse. Firstly, since the Eastern Bloc had dissolved, new transit countries emerged in its place, potentially causing uncertainty over time. Secondly, as a result of the Soviet Union breaking apart, 15 independent states were created. Among these states, the most important are Ukraine and Belarus, since practically all EU-destined Russian gas travel through their territory. For example, at the time that the Soviet Union dissolved, about 90 percent of Russia's gas exports traveled through Ukraine. And last but not the least, the break-up of the USSR with ensuing economic consequences triggered a rapid decrease in Russian gas demand not only within the RF, but also among former Soviet Union-customers (FSU) too. This fact, nevertheless, impacted the Russian economy positively, since a decrease in gas consumption meant an export surplus to Western European countries. Thus, allowing Moscow to expand its role as the world`s significant supplier of gas and increase its hard currency revenues[105].

Therefore in this chapter, we will scrutinize how the afore-said effects were reflected in Russian-European energy (gas) relations and determine the consequences for Russian and European energy policies.

3.1.1. GAZPROM As The Kremlin`s "Energy Weapon"

It is often argued that the most significant difference between Cold War Russia and post-Cold War Russia is that independent Russia, in comparison to its predecessor, has started to use its energy exports as a strong weapon that has allowed the Kremlin "to press its national interests and exercise political influence"[106]. In order to understand what these words actually mean we should analyze Russian gas industry and Russian energy strategy after the end of the Cold War.

As mentioned earlier, the main body responsible for the Soviet gas industry until 1965 was Glavgaz. In 1965, due to the rapid development of the "blue gold" industry,

[105] Nadejda M. Victor, David. G. Victor, "Bypassing Ukraine", 134-137.
[106] As Peter Rutland claims, this Russian attitude could be explained through "Russian Bear" paradigm. See Debra Johnson, "EU-Russian Energy Links: A Marriage of Convenience?" **Government and Opposition**, Vol.40, Issue 1(2005): 260-161.

the USSR had decided to reorganize the Glavgaz to the Soviet Gas Ministry (Mingazprom). However, following the collapse of the Soviet Union, the Mingazprom was divided into several national entities, i.e. Ukrainian, Belarusian and Russian. Later, each of them was reorganized into joint-stock companies, where the Russian part was presented by OAO Gazprom[107]. Gazprom of the 1990s was a monopolistic hybrid body or, as some experts say, "a state within a state", which, in comparison to the 2000s, was relatively independent from the state[108]. However, it was still obliged to provide the Russian population with gas at a subsidized price[109]. Today`s Gazprom, to be blunt, de jure, is a joint-stock company, de facto—it is "a state body", merging commercial and regulatory functions, and controlling the overall gas industry of Russia in many ways. It is obvious that Gazprom could not have immediately become so powerful. Therefore, the purpose of this section will be to determine how Gazprom achieved such a dominating situation in the Russian gas industry and why it often referred as "the new Russian weapon" in western scholarship[110].

To reach those objectives, I intend to use Stegen`s energy weapon model. According to this model, any entity can be referred as an energy weapon[111] if it has completed the following stages[112]:

- "state consolidation of resources";
- "overall control over transit routes";
- "threats, price hikes, and disruptions";
- "acquiescence and concessions."

The first stage, as the author claims, is strongly connected with Vladimir Putin`s graduate thesis entitled "Mineral Raw Materials in the Strategy for Development of the

[107] OAO stands for "Otkritoe Aktsionernoe Obshestvo", i.e. Open joint-stock company (OJSC).
[108] State owned only 38% of the company`s stakes.
[109] Nadejda M. Victor, David. G. Victor, "Bypassing Ukraine", 137.
[110] Even in Russian-language literature energy was referred as a Russian new weapon. See for example Valery Panyushkin and Mikhail Zygar`s book "Gazprom. Novoye Russkoe Oruzhie" (Gazprom- The New Russian Weapon). For details see Valery Panyushkin, Mikhail Zygar, **Gazprom. Novoe Russkoe Oruzhie** (Moscow: Zakharov, 2008).
[111] It is generally claimed that the term "energy weapon" was first conceived in 1970s during the first oil crisis. See Chapter 2.3.2
[112] Karen Smith Stegen, "Deconstructing The "Energy Weapon": Russia`s Threat to Europe as Case Study", **Energy Policy,** Vol. 39 (2011): 6505-6513.

Russian Federation", which he wrote as a PhD student in St. Petersburg. The major idea highlighted throughout the entire thesis is that the Russian government should control its natural recourses. Because these natural resources "were key to economic recovery, to the "entry of Russia into the world economy", and to restoring Russia`s status as a great economic power"[113]. In other words, as Putin firmly believes and continues to believe even now, energy is an important asset that should be under state control. In line with this belief, therefore, Putin commenced to implement stage 1 of Stegen`s energy weapon paradigm. In the following text, I attempt to show how this process took place.

Following the end of the Soviet Union, due to the fact that the Soviet gas pipelines were old and required significant investments, the Russian government decided to reform its declining energy industry through privatization. This so-called privatization included two stages. The first one was applied after the Presidential Ordinance Decree of November 1992 -"On Privatization and Transformation of State-Owned Enterprises, Production and Research Associations of Petroleum, Oil Refining Industries and Petroleum Product Supply Agencies into Joint Stock Companies." The second one, a shares-for-loan stage, was implemented in 1995. As a result of these stages, some petrol producing enterprises such as YUKOS, Surgutneftegaz, Rossneft and Lukoil, along with Gazprom, were reorganized into join-stock companies. Stakes of some companies were sold to insider banks (during the 2nd phase). However, it is important to mention that Gazprom did not go through the second stage. This was due to the particular importance of the gas sector for the Russian economy and unwillingness of the government to lose control over the sector[114]. Moreover, the Russian privatization did not actually lead to a capitalistic-based market system. By the end of this process, only two companies, Itera and Novotek, were known as major independent gas producers on the Russian market[115].

With the rise of Vladimir Putin, privatization left no trace. Mr. Putin started to renationalize the Russian energy sector and transform the Kremlin into PetroKremlin. Putin`s de-privatization process commenced with restructuring 'the Ministry of Fuel and Energy' into 'Ministry of Energy' and further replacing it by 'the Ministry of Industry

[113] Angela Stent, **The Limits,** 191.
[114] Nadejda M. Victor, "Gazprom: Gas Giant under Strain", http://pesd.fsi.stanford.edu/sites/default/files/WP71,_Nadja_Victor,_Gazprom,_13Jan08.pdf [2.04.2015].
[115] Karen Smith Stegen, op.cit, 6507.

and Energy.' All changes were connected to Putin`s willingness to appoint bureaucrats, who would serve "in the interest of the state", not in the interest of the capitalist-based markets. By the same token, he had reformed Gazprom. Viktor Chernomyrdin, the founder and chairman of Gazprom`s board of directors, and Rem Viyakhirev, Gazprom`s chief, were replaced by Dmitry Medvedev and Aleksei Miller. As a result of such kind "cleaning", the company`s Management Committee was replenished by 16 new members[116].

After taking Gazprom under state control, Mr. Putin made several changes in legislation- "allowing the government to have a controlling interest in the gas monopoly, by holding 50% plus one share, while controlling the sale of Gazprom`s shares to foreign investors"[117]. Furthermore, Putin, as Marshall Goldman claims, followed the "national champion" policy by attacking companies and urging them to sell their stakes to Gazprom. YUKOS and Sibneft, for instance, were two of those victims[118]. As a result of such manipulation, the Kremlin became the largest shareholder in Russia's overall energy super-structure. In addition to this, Putin`s Russia started to challenge the FSU and the former CMEA members, since, as Russian officials claim, the South Caucasus and Central Asia allegedly belong to "historic zones of Russian interests"[119].

In regard to the second stage, "state control over transit routes", the Kremlin attempted to accomplish this stage following the collapse of the USSR. It is important to mention that the Russia`s willingness to control delivery routes does not cover only the territory of the Russian Federation, but Russia`s Near Abroad too. From the domestic realm, while almost 90% of Russian oil is transported by state-owned Transneft, Gazprom owns and controls Russian Unified Gas Supply System (UGSS), the world`s biggest transportation system,[120] and is also a sole owner of gas storage sites in the

[116] Ibid, 50-51. Most of these entrants were from the definite circle of people: they had either worked with Mr.Putin during his tenure spent in St. Petersburg (so-called "St. Petersburg Team") or served with him in the former Soviet KGB/*siloviki* (now Federal`naya Sluzhba Bezopasnosti (FSB) - Federal Security Service). V. Kevin Rosner, **Gazprom and the Russian State** (London: GMB Publishing Ltd., 2006), 31-38; Valery Panyushkin, Mikhail Zygar, op.cit, Chapter 6.
[117] Nadejda M. Victor, "Gazprom: Gas Giant under Strain".
[118] See Marshall Goldman, **Petrostate: Putin, Power, and the New Russia** (New York: Oxford University Press, 2008), 93-135.
[119] Karen Smith Stegen, op.cit, 6507.
[120] Gazprom, http://www.gazprom.com/about/ [23.04.2015].

country[121]. International transit routes are also Gazprom-dominated; since it owns "blocking stakes" in about 70% of gas distribution organizations[122]. Transit pipelines outside of Russia are very critical for the Kremlin, since they transfer Russian energy to Europe and therefore allow Moscow to earn valuable hard currency. Considering the fact that the largest part of the external Russian transit pipelines pass through the territories of the FSU, Gazprom has thus put pressure on its near abroad to make them give or sell ownership of these transit pipelines. As the major method for implementing its goal, Gazprom uses FSU`s energy debts "as a bargaining chip"[123].

After gaining control over the pipeline routes and energy resources, Gazprom, as Stegan says, began to "convert its power into political gains" within the third stage of the energy weapon model[124]. This plan is intended to be realized by "implementation of threats, prices hikes [and] disruptions"[125]. In other words, in accordance with this stage, Russia would attempt to use its energy as a tool of Russian state power in order to gain its political and economic aims[126].

The transfer of control of the Black Sea Fleet from Ukraine to Russia in 1993 is a classic example of Russia utilizing the energy weapon design`s third stage. According to Ukraine, a 300-ship fleet that had remained after the dissolution of the USSR rightly belonged to Kiev, since it had been left on its territory. However, according to the Russian side, Sevastopol, the location of this ship, actually belonged to the Russian Federation, not Ukraine. In order to "convince" Ukraine to give up the Black Sea Fleet, the Kremlin cut the gas supplies to Ukraine by 25% a week before the Massandra Summit[127]. As a result, Ukraine gave Russia the ship and the entire Black Sea Fleet. It is quite clear that Russia had used gas as an "energy weapon." Though, according to the official version of the Kremlin, the cut-offs were commercial in nature and due to Kiev`s

[121] Rudiger Ahrend, William Tompson, "Unnatural Monopoly: The Endless Wait for Gas Sector Reform in Russia", **Europe-Asia Studies**, Vol. 57, Issue 6 (2005): 802.
[122] Ibid.
[123] Karen Smith Stegen, op.cit, 6508.
[124] Ibid.
[125] Ibid., 6507.
[126] "Energy Strategy of the Russian Federation up to 2020" clearly states that Russian energy resources and fuel and energy complex are the basis of economical development and, above all, an important vehicle in furthering internal and international policy of Russia. V. Institute of Russian Federation, http://www.energystrategy.ru/projects/ES-28_08_2003.pdf [27.04.2015].
[127] The main aim of the summit was to solve the fleet issue.

unpaid energy bills[128]. However, the Black Sea Fleet is not the only instance that Russia used this "energy weapon." It is generally accepted that Moscow often demonstrated its new weapon toward other transit countries, of which are discussed in greater detail below.

The fourth stage of the "energy weapon model" is "acquiescence and concessions." In the words of Stegan, at this stage, the "targeted state's responses must modify its behavior on account of the threats or actual disruptions"[129]. Simply put, this stage is considered to be a "stage of rewards' for Russia. This stage is intended to determine whether Russia's utilization of the "energy weapon" actually helps Russia gain its original intentions[130]. Since this stage, much like the previous one is tightly connected with the following subchapters, it would be appropriate to scrutinize their implementation later.

With regard to Russia using energy, in our case gas, as a strong geopolitical weapon, the following conclusion may be drawn: the state-owned Russian giant Gazprom has hegemony over Russian and CIS[131] markets, and sometimes uses its dominant position in order to achieve its political and economic goals. Whether or not Gazprom`s gas disruptions were always intentional will be discussed in the following sections.

3.1.2. New Transit Countries- New Vulnerabilities

As previously argued, "the biggest geopolitical disaster of the twentieth century" radically altered the existing European-Russian gas relations by dividing them into categories such as: the gas supplier (Russia), transit countries (mostly the FSU, in particular Ukraine and Belarus) and end-customers (European countries). The most vulnerable being transit countries, since they could serve as a potential source of ambiguity and complication in the actual situation. This was due to the fact that the parties had to create a new import-export system and agree on contractual terms and

[128] Karen Smith Stegen, op.cit, 6509. With annexation of Crimea by the Russian Federation the issue of Sevastopol is at the top of Ukrainian-Russian relations.
[129] Ibid., 6510.
[130] Ibid.
[131] The Commonwealth of Independent States.

transit fees. However, given the particularly controversial relations between Russia and the transit countries, the parties were not able to find a common ground. As a consequence, Russia attempted to solve such problems by shutting off gas supplies to them. This move by Russia was considered as a sign of political blackmail in Eastern European countries. In contrast, "Old Europe"[132] at that time had portrayed Russia as a reliable gas supplier, one who never uses its energy for political gains. However, the Western European opinion changed after the Russo-Ukrainian price crisis in 2006[133]. Therefore, we can safely come to the conclusion that the end of the Soviet Union made Russian-European energy relations very vulnerable, largely due to the emergence of transit countries.

However, it would not be right to say that deliberately cutting off the delivery of natural gas is typical only for post-Cold War Russia, since cases of this can be seen even before the collapse of the Soviet Union. By way of illustration, consider the events that followed the Lithuanian declaration of independence in 1990. Russia vehemently objected to the declaration and blackmailed Lithuania with threats to cut off gas supplies. As Vilnius refused to follow the Kremlin`s advice, Moscow decreased its gas supplies to Lithuania by 80%. Moreover, it had prohibited Estonia and Latvia from assisting their neighbor[134]. Therefore, for the first time the Eastern Block experienced disruptions from the Russian side. However, as time went on, international disruptions became more frequent; for instance, they have been repeatedly going on in the Baltic States, Belarus, Moldova, etc. Though the most serious, not to mention most numerous, disputes were connected with the major transit country for the EU—Ukraine. Analysis of this is provided in greater detail in the following pages.

It is interesting to mention that it is difficult to determine what motives were guiding the Kremlin and whether the gas interferences were applied because of political

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[132] The concept of "Old" and "New" Europe was firstly introduced into circulation by the US Minister of Defense Donald Rumsfeld during the Iraq War, differentiating those European countries which supported the USA (mostly former Eastern Bloc`s members) and the countries which have opposed them (specifically Germany and France). See "Secretary Rumsfeld Briefs at the Foreign Press Center", **U.S. Department of Defense**, 22 January 2003, http://www.defense.gov/transcripts/transcript.aspx?transcriptid=1330 [17.04. 2015].

[133] Tim Boersma, "European Energy Security and Role of Russia", **GMF**, 17 July 2013, http://www.gmfus.org/publications/european-energy-security-and-role-russia [23.03.2015].

[134] Per Högselius, op.cit, Chapter 11.

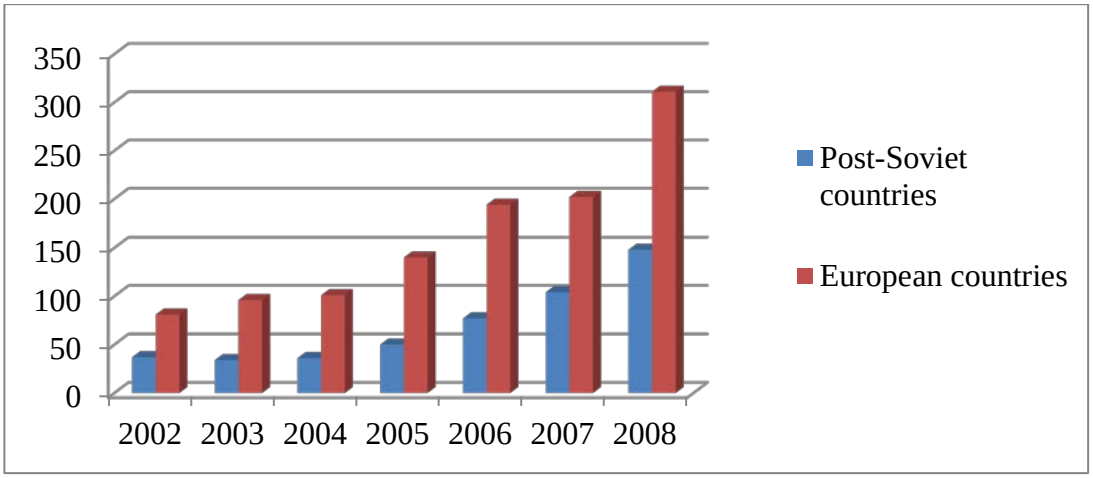
or economic reasons. The case of the Baltic countries again could serve as a good example. Right after the end of the Cold War, Estonia's new national parliament ratified a controversial citizenship law, in which its indigenous Russian-speaking population seemed to be discriminated against. In response, Russia stopped supplying its "blue gold" to Tallinn, arguing that these cutoffs were due to Estonian energy debts. Further, Gazprom cut off its gas supply to Lithuania, although Vilnius had not adopted any legislation regarding the Russian-speaking population in the country, but had had huge gas debts to Gazprom[135]. In the first example regarding Estonia, it was evident that politics played a part in gas disruptions, while the latter, concerning Lithuania, were implemented more because of commercial motives.

The price disputes situation between Russia and its Western CIS[136] partners, in particular Belarus and Ukraine, becomes even more complicated because most of Russian gas exports to Europe are transited through these countries. So, any gas supply disruptions in these areas directly influence customers in the West. As gas interruptions to Ukraine and Belarus were beginning, European scholarship, thus, started to raise serious concerns about their energy security[137]. It was after these gas interruptions that everybody began discussing about the possibility of Russia using its energy weapon. As it is sometimes suggested, Russia would suddenly increase gas prices for transit countries as a punishment for them wanting to move out of the Russian sphere of influence or for achieving the political aims of the Kremlin. In order to confirm these suggestions, we need to analyze the roots of the price confrontations.

It is generally accepted that the former Soviet countries paid lower prices for Russian gas than their Western counterparts (see Figure 2). In 2005/2006 Gazprom started to "fix" the situation by demanding that the neighboring countries pay European prices for their gas, i.e. by doubling its average price charged to the FSU from USD 63

[135] Ibid.
[136] Commonwealth of Independent States.
[137] Such price confrontations have taken place in Azerbaijan, Moldova and Georgia too. But due to the fact that these countries were not transit countries for EU-destined gas, they did not receive the same attention, as Ukraine and Belarus, in Western media. See Dimo Böhme, **EU-Russia Energy Relations: What Chance for Solutions? : A Focus on the Natural Gas Sector** (Potsdam: Universitätsverlag Potsdam, 2011), 100.

to USD 115[138]. In response, the FSU rejected to accept the new prices and continued to pay the old prices, thus, accumulating gas debts. The FSU argued that such a sudden increase in price was triggered by political reasons of the Kremlin. Russia, in turn, claimed that the increase was primarily due to commercial reasons, and the price increase is not targeted on any particular country but instead applied on an equal basis to all transit countries. If we consider both explanations in detail, we can see partial truth in both accounts. Gazprom, without exception, increased prices to all transit countries (including pro-Western Kiev and pro-Russian Minsk), as can be seen in Figure 3 below. However, it is also obvious that the Kremlin`s tone and nature of dialogue with a transit country was driven by political reasons too. For instance, Yafimava in her article, "The June 2010 Russian-Belarusian Gas Transit Dispute: A Surprise That Was To Be Expected", claims Moscow possibly started to treat Minsk strictly, "resulting from the latter not recognizing Abkhazia and South Ossetia, granting asylum to the outset Kyrgyz president, and boycotting the Russia-led CU"[139]. Therefore, the author believes that the price disputes between Moscow and Minsk could neither have been caused solely by politics nor solely by economics, since both aspects were present[140].



[138] Ibid., 87.
[139] Katja Yafimava, "The June 2010 Russian-Belarusian Gas Transit Dispute: A Surprise That Was to Be Expected", **OIES,** NG 43, (2010), http://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/NG43-TheJune2010RussianBelarusianGasTransitDisputeASurpriseThatWasToBeExpected-KatjaYafimava-2010.pdf [2.04. 2015].
[140] Ibid.

Figure 2: Gas Prices Charged to Post-Soviet and European Countries, 2002-2008 (in USD/1,000cm)

Dimo Böhme, op. cit, 87.

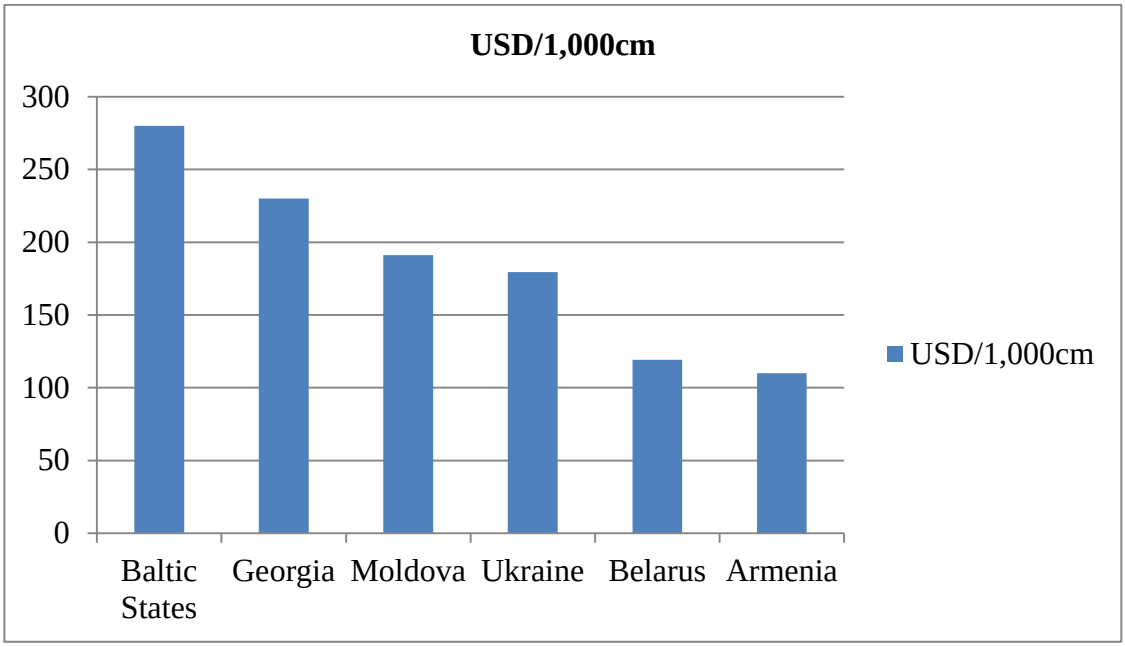


Figure 3: Gazprom`s New Pricing for the FSU, 2008

Dimo Böhme, op. cit, p. 89.

From a general standpoint, it does not seem unreasonable to suggest that politics played a significant role in the decision-making process of the Kremlin; since the countries in better relations with Russia received lower gas prices (compare, for example, gas prices of Ukraine and Belarus). In other words, Russia, using the multiple pricing schemes, gave lower gas prices to the "Russia-friendly" countries, while the "unruly" ones were surcharged. In the following subchapter, we will consider the case of the "unruliest" transit country- Ukraine.

To sum up, as we have seen from the numerous examples of transit-related issues, the transit countries became a real Achilles heel of Russian-European gas relations after the collapse of the Soviet Union. Post-Cold War gas pricing disagreements between Russian and the afore-mentioned transit countries led to several interruptions in gas exports to Europe. The motives of such gas disruptions were

interpreted differently by the parties. However, it can be safely concluded that during these crises the Kremlin used its gas as an energy weapon in order to generate desired results.

3.1.3. The 2006 and 2009 Ukrainian Gas Crises

Ukraine plays a crucial role in Russian-European energy relations, since more than 80% of EU-destined Russian gas passes through Ukrainian territory[141] (see Figure 4 below). By the same token, Ukraine is not just a major crossroad between Russian and Europe, it is also a large gas consumer and producer[142], as well as owner of a storage reservoir.[143] Therefore, any serious Russo-Ukrainian gas misunderstandings, such as ensuing gas disruptions, could directly impact Europe and generate significant discussion in the West; as it did during the 2006 and 2009 gas disputes. In this subchapter we will analyze the reasons of these disputes and define whether they are influenced by political developments.

The 2006 Russia-Ukraine gas crisis. The roots of both conflicts actually date back to the early 1990s, when Ukraine started to face difficulties meeting the world market prices Russia was implementing after the fall of the Soviet Union. As a member of the Soviet Union, Ukraine always had a limitless access to low-cost natural gas, and therefore lack of "blue gold" was never a subject of concern in Kiev. As outlined in the Chapter 2, Ukrainian gas fields, Schebelinka and Dasheva, even provided gas to the entire Soviet Union, the CMEA members and Western European countries at one time (until the discovery of West Siberian giant gas fields). To put it bluntly, during the Soviet Union period, Ukraine never had a problem with gas supply and consumed majority of Soviet energy. By way of illustration, Ukraine alone imported half of Russia`s oil and gas products in 1990[144].

[141] Dimo Böhme, op. cit, 100.
[142] Although its production could not meet domestic demand: Kiev was importing 47-57 bcm of Russian gas annually, while its production constituted only 19-21 bcm/year in 1990s.
[143] Ibid.
[144] Lucjan T. Orlowski, "Indirect Transfers in Trade among Former Soviet Union Republics: Sources, Patterns and Policy Responses in the Post-Soviet Period", http://econstor.eu/bitstream/10419/47138/1/256860653.pdf [20.04.2015].

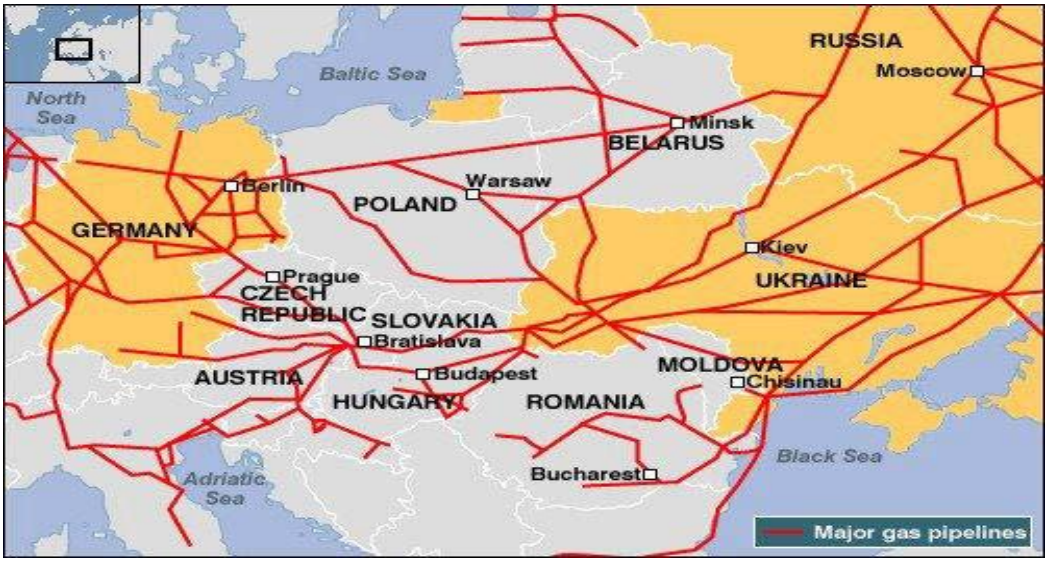


Figure 4: Ukrainian Transit Pipelines

Susanne Nies, op.cit, 97.

However, with the fall of the USSR everything had changed. Since Kiev`s domestic production was declining, Ukraine was unable to meet its domestic demand and therefore had to annually import up to 50 bcm of gas from Russia. However, due to lack of money, Ukraine could not pay the gas bills and therefore, accumulated high levels of debt to Russia[145]. In 2004 the situation seemed to be solved after an agreement between Kiev and Moscow concerning the delivery of Central Asian gas to Ukraine and settling Ukraine's gas debt to Gazprom. However, following the Orange Revolution and the arrival of new, pro-Western President Viktor Yushchenko, the situation started to deteriorate. Yushchenko advocated the idea that Russia should pay gas tariffs to Ukraine according to European levels and in dollars. In response to this proposal, the Kremlin raised a question of increasing gas prices to "world' market prices, i.e. from USD 50 to USD 230 per 1000 cubic meters. As one might expect, Kiev rejected such a huge increase in price and demanded any changes phased in. Both parties` positions were strong; hence they failed to reach any agreement and Gazprom cut off supplies to Ukraine. In January 2006 Gazprom`s European customers also experienced a shortfall in

[145] Jonathan Stern, "The Russian-Ukrainian Gas Crisis of January 2006", **OIES**, 16 January 2006, http://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/01/Jan2006-RussiaUkraineGasCrisis-JonathanStern.pdf [4.04.2015].

gas supplies: Hungary by 40%, France- 25-30%, Poland- 14% etc. However, since the disruptions were brief (only 4 days), no EU country needed to interrupt supplies to customers[146].

Nevertheless, the January disruption made a considerable impact on the EU. Western experts started to question Russia`s image as a reliable gas exporter and raised concerns about the possibility of these interruptions continuing in the future. The most crucial question, however, was to determine whether these gas cutoffs were politically motivated.

In the words of Gazprom (Russia), gas shutoffs to Ukraine were driven only by commercial goals, and suspended gas supplies to European countries were not Russia`s fault, but due to the alleged theft from the transit system. The Ukrainian side, however, claimed that Gazprom`s new pricing was aimed to constrain energy supplies to Ukraine and denied the fact that it siphoned gas off[147]. However, it is not unreasonable to suggest that the 2006 Russia-Ukraine gas crisis was due to economic reasons only on the surface, and actual the intentions of the Kremlin were far from being a purely commercial one.

The 2009 Russia-Ukraine gas dispute. This gas crisis was actually not unexpected, since it was a continuation and a part of the persistent Ukraine-Russia "gas wars." Therefore, similar to the preceding case, it had commenced due to disagreements about gas prices and Ukraine's gas debt and ended similarly with gas disruptions. However, in comparison to the 2006 crisis, this pricing dispute had significant, long-term and severe implications for the economic situation in the EU, since it lasted several weeks[148], not four days such as the previous one. With Russia`s gas supply disruption to Ukraine, all the EU countries which were importing Russian gas through the Ukrainian territory were seriously affected. Consider the case of South Eastern Europe. With the exception of Romania and Croatia, almost the whole region was fully dependent on

[146] Ibid.
[147] "Q&A: Ukraine Gas Row", **BBC News**, 4 January 2006, http://news.bbc.co.uk/2/hi/business/4569846.stm [19 April 2015].
[148] Gazprom`s disrupted gas supplies to Ukraine on January 1st, 2009. After six days gas deliveries to 16 European countries were stopped and resumed only after 14 days. V. Dimo Böhme, op. cit, 103.

Russian gas exports through Ukraine. Therefore, the 2009 January gas disruption seriously affected the region`s economy[149].

As in the 2006 gas dispute, the stumbling stone of the 2009 gas dispute was the failure to agree on gas prices that Ukraine should pay for Russian gas and transit tariffs that Russia was to pay for its gas crossing the Ukrainian territory. The Russo-Ukrainian accusations followed a scenario of the previous disputes: Ukraine found the latest price offer of USD 250 per 1000 cubic meters very high and demanded that the transit fees be increased in case of a possible increase in gas price[150]. Furthermore, Ukraine accused Russia of using the gas disputes as political leverage. Russia, in turn, claimed that the gas shutoffs were because of commercial reasons and blamed the dispute on a "clan war" between Prime Minister Yulia Tymoshenko and President Viktor Yushchenko"[151]. These kinds of mutual accusations, however, did not help resolve the gas conflict and did not prevent gas interruptions.

It is worth pointing out that; nevertheless, the Kremlin vehemently denied the fact that it utilized the "blue gold" as an energy weapon. According to Stegen, "the timing and Russia's propagandistic use of the cut-off have raised suspicions that the disruption was also a means to rally European support for Nord Stream"[152]. To put it simply, the author believes that Russia might have cut gas supplies on purpose in order to rush Baltic countries into giving a confirmation on the realization of Nord Stream, a project that they were not backing due to potential environmental implications. In other words, Stegen did not exclude the fact that the gas interruptions were politically motivated. The most convincing proof of this is that the Kremlin employed the multiple pricing schemes towards the FSU customers. This meant that often Moscow-friendly FSU countries would pay less than the countries with pro-Western orientation.

[149] For a detailed discussion regarding the influence of the 2009 January/February gas crisis on South Eastern Europe see Aleksandar Kovacevic, "The Impact of the Russia-Ukraine Gas Crisis in South Eastern Europe", **OIES,** NG 29 (2009), http://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/NG29-TheImpactoftheRussiaUkrainianCrisisinSouthEasternEurope-AleksandarKovacevic-2009.pdf [2.04.2015].

[150] "Ukraine Gas Dispute Moves into Post Cutoff Stage", **RT**, 2 January 2009, http://rt.com/business/ukraine-gas-dispute-moves-into-post-cutoff-stage/ [21.04.2015].

[151] "Q&A: Russia-Ukraine Gas Row".

[152] Stegen, op, cit, 6509.

Therefore, it is not surprising that pro-Western Yushchenko had to pay more than relatively pro-Russian Lukashenko (see Figure 3 above).

To sum up, both the 2006 and 2009 Ukraine-Russia gas disputes were just a part of chronic Russo-Ukrainian gas misunderstandings, which had begun well after the fall of the Soviet Union. The cause of the escalation of conflicts lies in Russo-Ukrainian failure to agree on contractual terms and gas prices. Since it is difficult to comprehend the real motives of both parties, the 2006 and 2009 gas disputes with ensuing gas interruptions cannot be classified as either purely economic or political. Both aspects were present. However, the EU never portrayed Russia as an unreliable gas exporter until the 2009 Ukrainian "gas war" and long-lasting gas disruptions. So, the possibility of Russia`s use of its gas as political blackmail was unexpected news. Therefore, it could be concluded that a number of Russia-Ukraine gas conflicts, along with other transit-related debates, seriously damaged Gazprom`s (Russia`s) image as a credible gas supplier in the eyes of Europe.

3.2. Interdependence in the EU-RF Energy Relations

In this subchapter we will consider why the parties, despite the above-mentioned "unpleasant moments"- several gas crises with ensuing gas disruptions and persistent problems with transit companies- continue to collaborate with each other. In order to understand the reasons of this continued collaboration, gas markets of Europe and Russia will be analyzed in-depth.

3.2.1. The Gas Industry of Russia: Enormous Natural Reserves, Large Distances and State Monopoly

One can say without overstating that Russia`s role in the global energy industry is absolute. While worldwide natural gas resources constitute nearly 130 trillion cubic meters (tcm), Russia`s proven reserves range from 40 and 50 tcm[153] and make up 23% of the global reserves[154]. Together with Qatar and Iran, Russia forms the "strategic

[153] Dimo Böhme, op. cit, 60.
[154] Ministry of Energy of the Russian Federation, "Energy Strategy of Russia for the Period up to 2030", http://minenergo.gov.ru/aboutminen/energostrategy/ [23.04. 2015].

ellipse" whose overall gas reserves make around 91 tcm, that is to say, 70% of worldwide reserves[155]. Gazprom, a state-owned giant, in turn, possesses 18 % of the global and 70% of the Russian reserves in natural gas[156]. Russia is the world`s largest country, therefore, gas reserves are distributed quite unevenly throughout the country. Most of the production comes from the so-called "Big Three"--three super-giant gas fields[157] Urengoy, Yamburg and Medvezh`ye in Western Siberia- whose production comprises more than 70% of Gazprom`s total gas production[158]. The remainder is produced in the European part of Russia (10 %), Eastern regions (8 %) and continental shelf (6 %)[159]. In regard to proven, but not yet developed gas fields, they are also located in Western Siberia. As we have seen, Russia (Gazprom) possesses vast proven and unproven gas resources and plays a crucial role in the global gas market. However, despite the large gas reserves, there is a possibility that Russia could face a gas deficit in the distant future. This fact is a matter of concern, first of all, for Russia, since gas exports comprise majority of its hard currency earnings, and for Europe, a major gas buyer of Russian "blue gold." In the following we will analyze the causes of such a pessimistic hypothesis and define the potential role of Europe in solving this issue.

First and foremost, this forecast is based on the fact that the three West-Siberian gas fields are now on a steady decline. According to estimates, gas extraction decreases by 20-25 bcm annually[160]. Since the gas deposits were discovered in the early 1970s, practically all of them peaked during the Soviet Union[161]. As a result, Gazprom is striving to find gas deposits that could replace the "Big Three" in the future. As outlined earlier, there is a wealth of undeveloped and unproven gas reserves in Russia. However, most of them are located in different terrains and climatic conditions, so their exploration and development requires large domestic and foreign investments. Also, a certain amount of time would be needed for potential new gas fields to be able to offset the progressive decline in West-Siberian gas fields. Furthermore, bearing in mind that

[155] Dimo Böhme, op. cit, 60.
[156] Gazprom, http://www.gazprom.com/about/production/reserves/ [24.04.2015].
[157] For more information about giant and super-giant gas fields see Dimo Böhme, op. cit, 60.
[158] Kevin Rosner, op.cit, 21.
[159] Dimo Böhme, op. cit, 60.
[160] Kevin Rosner, op.cit, 21.
[161] Nadejda M. Victor, op.cit.

most of the gas from Eastern Siberia and the Far East will target the Asian and Pacific Rim markets[162], it is obvious that only European and CIS gas markets would be affected by the depletion of the "Big Three"[163]. Therefore, the main handicap for Russian gas industry`s growth from a European perspective, as Rafael Fernandez claims, is not "reserves, but investment"[164]. Obviously the gas industry of Russia could either be developed through domestic financing or foreign direct investments (FDI).

However, in regard to domestic financing, Gazprom has been experiencing a lack of domestic investments from the very beginning of its existence. Firstly, the investment deficit was due to the economic crisis, which had commenced following the Soviet Union's collapse. Secondly, due to the short-term strategy that Gazprom applied during the 2000-2004 period. With the rise of Vladimir Putin into power, the situation with investments was projected to improve. However, despite the changes in investment policy of Gazprom, the company was very reluctant to invest. The company preferred not to invest sufficiently in new technology and new fields until the end of 2008, but instead, preferred to further exploit depleting super-giant fields with low operating costs. At the start of Putin's second term of presidency, a new Gazprom investment strategy started to improve and also began to address this problem more seriously[165]. However, this does not necessarily mean that Russia is able to tackle the investment deficit without assistance from a third party (Europe)[166]. Since, according to International Energy Agency estimates, the Russian gas giant has to invest USD 17 billion in production and pipeline infrastructure annually until 2030 in order to keep the company`s organization

[162] Gazprom, http://www.gazprom.com/about/production/projects/east-program/ [25.04. 2015].
[163] Bengt Söderbergh, Kristofer Jakobsson, Kjell Aleklett, "European Energy Security: An Analysis of Future Russian Natural Gas Production and Exports", **Energy Policy**, Vol. 38, Issue 12 (2010): 7827.
[164] Rafael Fernandez, "Russian Gas Exports Have Potential to Grow Through 2020", **Energy Policy**, Vol. 37 (2009): 4029, http://pendientedemigracion.ucm.es/info/epm/miembros/fernandez2009b.pdf [4.04.2015].
[165] Ibid, 4029-4036.
[166] Taking into consideration the fact that Russia lost more than 25% of its hard currency reserves and was "cut" from energy-related Western technology, due to western sanctions, which were imposed to the Kremlin in relation to ongoing Ukraine crisis, it is quite clear that the investment program of Gazprom is restrained. See "Zapadnie Santsii Prakticheski Ne Sigrali Nikakoi Roli v Uhudshenii Ekonomicheskih Pokazatelei Rossii", **Bloomberg**, 30 March 2015, http://mainfin.ru/news/view/1328-bloomberg-zapadnye-sankcii-prakticheski-ne-sygrali-nikakoj-roli-v-uhudshenii-ekonomicheskih-pokazatelej-rossii [24.04.2015].

lean[167]. Needless to say, the Russian government is incapable of affording such a sum every year.

As described above, Gazprom's investment program is far from being promising and ambitious. Therefore, it is in need of European investments, especially in areas like the development of new gas fields, transport and distribution networks[168]. As a matter of fact, the EU member states are the most significant investors in Russia: more than 75% of FDI stocks in Russia come from Europe (including Cyprus)[169]. In 2013, among the main EU investors in Russia were Luxembourg, France, Germany and Spain[170]. As for the European FDI in the energy sector of Russia, it is estimated to increase to 12% of the investment stock[171]. Therefore, European shares in the Russian FDIs serve as a binder in the EU-Russia gas relations.

Another aspect that brings Europe and Russia together is their shared interest in gas exports and its contribution to the Russian economy. According to the BP Statistical Review of World Energy, nearly 70% of Russian gas was consumed by domestic customers, while the remainder (30%) was exported in 2009. Thirty-four percent of the total export amount was destined to the FSU (including the Baltic States) and 64% to the Far Abroad, i.e. EU members and Turkey. However, even though EU-destined gas exports (including Ankara) comprised nearly 20% of the Russian gas export volumes, in 2008 they made more than 60% of Russia's revenues (see Table 5)[172]. As outlined earlier, the reason of such disproportion lies in Gazprom`s multiple pricing scheme. As a

[167] Lisa Pick, "EU-Russia Energy Relations: A Critical Analysis", **Polis Journal**, Vol. 7 (2012): 353, http://www.polis.leeds.ac.uk/assets/files/students/student-journal/ug-summer-12/lisa-pick.pdf [4.04.2015].
[168] Rudiger Ahrend, William Tompson, op.cit, 804-805.
[169] European Commission, http://ec.europa.eu/trade/policy/countries-and-regions/countries/russia/ [24.04.2015].
[170] Ibid, http://ec.europa.eu/eurostat/statistics-explained/index.php/Foreign_direct_investment_between_the_European_Union_and_BRIC [25.04. 2015].
[171] Vasily Astrov, "Current State and Prospects of the Russian Energy Sector", **WIIW**, Research Report No. 363 (2010), http://wiiw.ac.at/current-state-and-prospects-of-the-russian-energy-sector-p-2174.html [24.04.2015].
[172] Bengt Söderbergh, Kristofer Jakobsson, Kjell Aleklett, "European Energy Security: An Analysis", 7829.

result of which, Gazprom`s European customers pay higher prices than Gazprom`s internal[173] and the CIS customers (see Figure 2 in the previous pages).

Table 5: "Obshestvennoe Aktsionernoe Obshestvo"/OAO Gazprom: Sales Data, 2008

Sales	Volume of natural gas in bcm	Profit
Domestic sales	292.2 (51%)	USD 16.317 Billion (18%)
Sales to post-Soviet countries	96.5 (17%)	USD 12.999 Billion (14%)
Sales to Europe and other countries	184.4 (32%)	USD 63.543 Billion (68%)

Nataliya Esakova, op.cit, 171.

Therefore, in light of above, it could be concluded that Russia is heavily reliant on Europe, since it is one of the important gas markets of Russia which, moreover, despite the relative small share in Gazprom`s overall gas sales, accounted for more than 60% of Russian hard currency earnings. Furthermore, EU members contribute to solving the issue of investment and energy-related technology deficit in Russian gas industry that has emerged due to Russia`s inefficient investment program. In other words, Russia is greatly in need of European customers because of economic and financial reasons. Therefore, it does not seem unreasonable to suggest that, despite Gazprom`s willing to achieve geographical diversification and expand its market to the Asia-Pacific Region (APR), Europe will remain Russia`s main gas market.

[173] Gazprom, just like other national companies of China, Brazil, India and Mexico, is required to provide the domestic market with oil and gas products at state-regulated prices. This is fact is not favorable for Gazprom, since, as we have seen, despite the fact that Russian internal customers consume more than half of Gazprom`s production, most of the profits are brought not by domestic consumers, but foreign one. Therefore, bearing in mind a continuing decline of major gas-producing fields, Russian Federation Government started to take certain steps to improve the Russian gas market in compliance with market-based principles. See Gazprom, http://www.gazprom.com/about/marketing/russia/ [26.04.2015].

3.2.2. European Gas Reliance on Russia

The European Union is one of the world`s most developed regions and, hence, one of the significant gas consumers. The EU, on the one hand, is the world`s second largest energy market behind the United States and ahead of Russia[174], on the other hand, Russia`s most important export market.

As we have seen from the previous pages, though Russia-European Union gas relations can be traced back to the Cold War, popularity in the energy security issue reached its heyday on the European agenda first in 2006 and 2009 during the so-called "gas wars", when the Ukrainian and Russian debates around gas prices triggered the Russians to shut off the Ukrainian supply and, consequently, European gas supply; secondly, in 2010 during the Belarusian interruption of gas and last but not least, in connection to the ongoing crisis in Eastern Ukraine. Only through the evolution of these crises can the European countries comprehend to what extent they are dependent on and vulnerable from energy imports and to what extent is their principal energy supplier, Russia, reliable.

For the time being Europe imports more than half of its energy, since its domestic energy production (provided mainly by Norway, the Netherlands, the United Kingdom, Denmark and Romania) meets only 46% of the total consumed energy[175]. The domestic production in Europe reached its peak in 1996 and entered a state of decline starting from 2004[176]. However, according to experts of the Oxford Institute for Energy Studies, this declining trend is followed by all EU gas producers, except for Norway, since Norwegian production, despite a relatively slow growth, is expected to rise from 103 bcm of gas in 2013 to 75-115 bcm in 2025[177]. Basically, European total gas productivity was projected to decrease from 216 bcm/year in 2006 to 90 bcm/ year in 2030, whereas the EU`s need for gas was estimated to quickly grow, reaching 680 bcm/

[174] Anouk Honoré, "The Outlook for Natural Gas Demand in Europe", **OIES**, NG 87 (2014), http://www.oxfordenergy.org/wpcms/wp-content/uploads/2014/06/NG-87.pdf [27.04.2015].
[175] Nataliya Esakova, op.cit, 159.
[176] Bengt Söderbergh, Kristofer Jakobsson, Kjell Aleklett, "European Energy Security: The Future of Norwegian Natural Gas Production", **Energy Policy**, Vol. 37, Issue 12 (2009): 5037.
[177] Ralf Dickel et al., "Reducing European Dependence on Russian Gas: Distinguishing Natural Gas Security from Geopolitics", **OIES**, NG 92 (2014), http://www.oxfordenergy.org/wpcms/wp-content/uploads/2014/10/NG-92.pdf [2.04. 2015].

year in 2030 from 532 bcm/year in 2006 (forecast from 2009)[178]. This means that the level of imports, i.e. European dependence on energy imports, will rise so as to cover the energy demand. Therefore, it could be concluded that European overall energy expenditure will increase, while the EU`s self-production will follow the opposite trend.

In terms of EU natural gas imports, Europe imported more than 160 bcm of Russian gas annually in 2014, while in the early 1990s this figure comprised only 100 bcm/year[179]. However, despite the fact that the amount of imported gas is huge, the "blue gold" is distributed disproportionally throughout the European continent. This means that some EU countries receive more Russian gas; consequently, they are more dependent on Russian gas imports, while the others who receive a less amount of gas and, accordingly, are more independent from Russia, as illustrated in Figure 5. According to Youngs, European gas importers could be divided into three groups. The first group consists of those states with low reliance on Russian gas such as the UK, the Netherlands, Portugal, Belgium, Spain, etc. The second one is represented by the states with medium dependence, for example, Germany, Italy and France. The last group of countries, respectively, is highly dependent on Russian "blue gold": Austria, the Czech Republic, Greece, the Baltic States, Hungary, to name but a few[180]. As we have seen, the last group primarily comprises of the representatives of the Eastern Bloc. They, due to historical reasons, became dependent on natural gas during the Cold War, since the Soviet Union actively supplied them with gas at a subsidized price in order to increase economic and political dependence of the CMEA members on the Kremlin. Turning back to the case, despite the differences between member states` import profiles, overall European dependence on Russian natural gas is high.

[178] Bengt Söderbergh, Kristofer Jakobsson, Kjell Aleklett, "European Energy Security: The Future", 5037.
[179] Ralf Dickel et al.,op.cit.
[180] Nataliya Esakova, op.cit, 163.

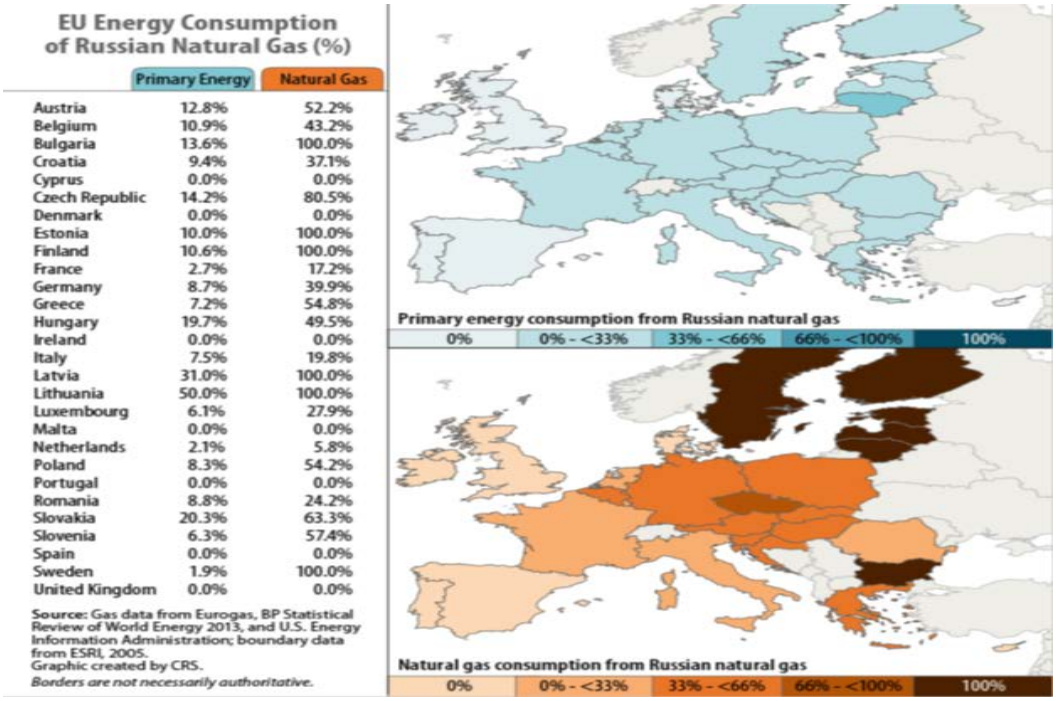


Figure 5: EU Imports of Russian Gas

Sanan Azeroğlu, "The Role of Russia in Europe`s Energy Security and Its Effects on EU`s Foreign Policy", **Uluslararası Politika Akademisi**, 24 December 2014, http://politikaakademisi.org/the-role-of-russia-in-europes-energy-security-and-its-effects-on-eus-foreign-policy/ [22.06.2014].

The dependence on Russian gas was put high on the EU agenda in the aftermath of turbulences in conjunction with never-ending gas crises between Russia and transit countries. Moreover, past and current gas crises have forced the EU to improve its energy security mechanisms and look for alternatives to Russian gas, i.e. to reduce its reliance on gas (to use Cold War language) from the East[181]. To this end, numerous alternatives to diversify EU gas imports, including possible gas supplies from Central Asia, Iran and Iraq, North Africa, etc.[182] have been considered. However, long-term contracts (LTC) between Europe and Russia, varying from 10 to 35 years in length and obliging European companies to import more than 100 bcm/year of Russian gas[183], are significant hurdles that could inhibit EU gas-supply diversification projects in the short

[181] See following sections of the thesis.
[182] These and other gas-supply diversification plans of EU are analyzed in Chapter 3.3 and Chapter 4.
[183] Most of the LTC have so-called take-or-pay clause, according to which EU consumers have to "to pay for a minimum annual quality of gas, irrespective of whether they take that quantity." In other words, the agreed amount of gas has to be paid whether taken or not by Gazprom`s European customers. See Ralf Dickel et al., op.cit.

run if alternatives to Russian gas were to be found. Therefore, it should be emphasized that due to the estimated increase in European gas demand, increased imports of Russian "blue gold" will be significant for "meeting the anticipated growing gas demand of the EU"[184] and Europe will continue to rely on Russian exports in the foreseeable future.

3.2.3. Mutual EU-Russia Interdependence?

"In energy sector, Russia needs Europe as much as Europe needs Russia"
Andris Piebalgs[185]

Based on the figures presented above, we can exclude the possibility of unilateral dependence of one party on another, since gas relations between Russia and Europe are relations of mutual interdependence of supply, demand and investment. Russia is highly reliant on the EU -as its most profitable gas export market -European FDI and technologies; European countries, in turn, are dependent on Russian "blue gold" and other types of energy exports.

From an overall perspective, though, it seems that Europe and Russia equally need each other, following circumstances could reveal the fact that Russia is slightly more contingent on EU-destined exports than Europe is on Russian gas supplies (asymmetrical dependence). However, this term, i.e. asymmetrical dependence, could be applied only to the gas trade between "Old Europe" and Russia. In case of interruptions of natural gas supplies from Moscow, representatives of "Old Europe" can tackle the situation by replacing the "blue gold" with different energy sources such as renewable and nuclear energy, liquefied natural gas (LNG)[186] or even supplanting Russia with other suppliers (raising import amounts from Norway, whose production, inter alia, is predicted to increase as outlined earlier, North Africa or Saudi Arabia (oil)). In this scenario, Russia would be more vulnerable than Europe and most probably would end up losing, because Russia`s Far-Abroad-gas-sale makes "a large part of state

[184] Bengt Söderbergh, Kristofer Jakobsson, Kjell Aleklett, "European Energy Security: An Analysis", 7828.
[185] EU Energy Commissioner between 2004 and 2010; V. European Commission, **The European Union and Russia: Close Neighbours, Global Players, Strategic Partners** (Brussels, 2007), http://eeas.europa.eu/russia/docs/russia_brochure07_en.pdf [1.05 2015].
[186] Gazprom also became active in the LNG market, and for the time being exports its LNG to Japan, Korea, China, India, Taiwan, the UK, the USA and etc. V. Gazprom, http://www.gazprom.com/about/production/projects/lng/ [4.05. 2015].

revenues and forms an essential part of the Russian budget and share exports." Moscow, as we have seen, also requires additional investments for exploration of new fields and infrastructure renovation, for this purpose the Kremlin needs assistance from its lucrative customers from Europe[187]. Furthermore, the Kremlin has a slim chance to diversify its client base and supplant European gas, since none of its potential clients are able to purchase Russian gas under the same circumstances as "Old Europe" does, even the promising clients of Gazprom`s Eastern project. For instance, the recent Russia-China 30-year gas agreement envisages that Russia, starting from 2018, should supply around 38 bcm of gas a year, which is expected to be worth USD 400 Billion[188]. As it was mentioned in the previous subchapter, under the "take-or-pay" clause European companies are obliged to export 100 bcm of Russian gas annually within the next 2-3 decades; hence the new Sino-Russian gas deal is actually not a big deal, because even if the deal works out as planned, Gazprom`s envisaged gas sale to Beijing would be not as significant as European one. However, one could argue that the above amount of gas, i.e. 100 bcm/year, comprises all European countries, not only "Old Europe." Therefore, Gazprom`s contracted amount of gas to "Old Europe" could be less, in consequence, envisaged gas exports to China are huge. In response to this critique, it could be mentioned that "Old Europe" involves countries like Germany and France, which, inter alia, despite their medium dependence on Russian gas[189], are among the largest consumers (in terms of volumes of consumed gas) of Russian gas among all European countries. Hence, it could be concluded that most of contracted gas from Russia would be consumed by these states.

In regard to "New Europe", the gas trade between these countries and Russia can also be called "asymmetrical dependence"; however, in this case, it is not Russia who is asymmetrically reliant on Europe, but vice versa. This is due to the fact that most of the Central and Eastern European countries (see the previous chapter) are 100% dependent

[187] Lukáš Tichý, Petr Kratochvíl, "The European Union`s Discourse on Energy Relations with Russia", UACES 43rd Annual Conference, 2-4 September 2013, Leeds, http://uaces.org/documents/papers/1301/tichy.pdf [6.04.2015].
[188] Marc Adomanis, "The Russia-China Gas Deal Matters but Its Ultimate Significance Is Unclear", **Forbes**, 21 May 2014, http://www.forbes.com/sites/markadomanis/2014/05/21/the-russia-china-gas-deal-matters-but-its-ultimate-significance-is-unclear/ [3.05.2015].
[189] See previous pages of the thesis.

on Russian gas, and Russia is their sole natural gas supplier. In addition, Russia is not dependent on these countries for earnings or energy-related technology[190]. Therefore, if Russia disrupts its exports to Europe, "New Europe" would suffer catastrophic consequences, for example, as it did during the Russo-Ukrainian gas crises[191]. This situation serves as a great asset and Russia`s leverage over Europe. Since, with this in mind, most of Russian *siloviki*[192] tend to claim that "while Russia can live at least one year without any European/Western investments and technologies, Europe cannot survive even 30 days without Russian gas"[193]. These boastful expressions, however, have some element of truth, and both Europes (Old and New) are aware of this fact.

Thus, in conclusion, the EU-Russia gas relations are based on interdependence, though asymmetrical: 1) Russia experiences asymmetrical interdependence towards the so-called "Old Europe", because most of the representatives of this group are medium-dependent on Russian gas, and in case of gas cut-offs from the Russian side, are able to find alternatives, even with considerable costs, to Gazprom`s "blue gold." Russia, in turn, is very reliant on gas exports to this part of Europe, since Europe is a source of investment and a profitable market. 2) Gas trade between "New Europe" and Russia is also based on asymmetrical interdependence. However, in the present case, Central and Eastern European countries have unfavorable position against Russia due to their high dependence on Russian gas exports. Taking into consideration these two facts, we can say that **for the time being**[194] there is no other option but to repeat the words of former EU Energy Commissioner Andris Piebalgs, "Russia needs Europe as much as Europe needs Russia." In other words, it could be concluded that EU-Russia gas relations are based on partnership of necessity.

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[190] Dimo Böhme, op.cit, 159.
[191] Lukáš Tichý, Petr Kratochvíl, op.cit.
[192] The term is generated from a Russian word "sila", which means "strength" or "power" and refers to "members of security services police and armed forces". Moreover, the word is also used to identify high-level politicians who had served with Vladimir Putin in the Federal Security Service at the beginning of his career. Oleg Dmitriev, "Of Russian Origin: *Siloviki"*, http://russiapedia.rt.com/of-russian-origin/siloviki/ [12.07.2015]; See also Chapter 3.1.1.
[193] Frank Umbach,"Russian-Ukrainian-EU Gas Conflict: Who Stands to Lose Most?" **NATO**, http://www.nato.int/docu/review/2014/nato-energy-security-running-on-empty/Ukrainian-conflict-Russia-annexation-of-Crimea/EN/index.htm [30.04.2015].
[194] The word "for the time being" is intentionally made bold, since in the following pages it is intended to analyze implications of ongoing Russo-Ukrainian gas crisis for EU-Russia gas relations and EU attempts to reduce its dependence on Russian gas. See Chapter 4 of the thesis.

3.3. Cooperating to Secure Energy Security

In the following subsection attention will be paid particularly to the energy dialogue between the EU and Russia, and an institutional base for the dialogue will be analyzed in-depth. Also, I will consider Russia- and EU-supported diversification supply routes, which are aiming at providing security of supplies to European countries.

3.3.1. Institutionalization of EU-Russia Energy Dialogue

While the preceding sections paid much attention to the gas trade and gas pipelines, in this passage we will focus on institutional basis[195] of energy cooperation between the EU and Russia.

Energy cooperation between the parties that started in the second half of 1960 could be mostly characterized as an energy dialogue, since the parties started to engage with each other to meet their energy, economic and political needs[196]. As we have seen earlier, the then West European-Soviet gas trade was absolutely based on bilateral gas contracts that were agreed between West European leading gas companies and the Soviet state; fraternal socialist neighbors of the Kremlin were relatively following the same path, but, in contrast to West European countries, were mostly integrated with the USSR. With the end of the bipolar confrontation, however, this political division of East and West European countries was removed; this fact, as a consequence, gave way for a great opportunity for Europe "to overcome previous economic divisions." Therefore, the European countries initiated to deepen their cooperation in the energy sector with the "new" Russia" and, as a whole, with the newly independent states of Eurasia. To that end, the European Energy Charter was born in 1991[197]. Later on, the Treaty to the Energy Charter aiming to "build a legal foundation for energy security, based on the principles of open, competitive markets and sustainable development" was signed. Being a multilateral groundwork for energy cooperation, the Charter ensured a clear

[195] For a brief description of institualization process between the EU and Russia till 2010 see "EU-Russia Energy Dialogue: The First Ten Years: 2000-2010", 10th Anniversary Conference, 22 November 2010, Brussels, https://ec.europa.eu/energy/sites/ener/files/documents/2011_eu-russia_energy_relations.pdf [5.05.2015].
[196] See Chapter 2.4.
[197] For more details see Website of the Energy Charter, http://www.encharter.org/index.php?id=604&L=1%2F%2F%2F [7.05. 2015].

departure from the former approach based on bilateral contracts or non-legislative instruments. As of today, 54 states of Europe and Asia, including Russia, have signed the Energy Charter Treaty (ECT)[198]. Therefore, the Europe-initiated ECT is on the one hand a huge step to enhance the rule of law in energy problems between Europe and its principal energy supplier- Russia-, but on the other is also a challenge for the parties, since though Russia signed the Treaty in 1994, it did not ratify it yet for some reason[199].

Following the signing of the ECT by Russia, Russia and EU signed the Partnership and Cooperation Agreement (PCA) which was then accepted as a legal and institutional basis for energy dialogue[200]. In accordance with the PCA, two summits of the heads of the states or the governments, a meeting of the Permanent Partnership Council, a meeting between the European Parliament and the State Duma (in Russian, *Gosudarstvennaya Duma* or *Gosduma)* must be held. The summits had to be organized by the Cooperation Committee and its subcommittees, one of which is engaged with the energy sector. But due to the fact that the subcommittee responsible for energy cooperation between Russia and Europe stopped working, the energy dialogue between Brussels and Moscow is observed only at the intergovernmental level[201].

Another significant event that has once again proved the parties` will to improve the energy relations was the signing of Memorandum between the Ministry for Fuel and Energy of Russia and the European Commission (EC), the main aim of which was "to foster industrial cooperation in the energy sector"[202]. However, despite the ambitious goals of the Memorandum, the energy dialogue between Brussels and Moscow did not

[198] Ibid, http://www.encharter.org/index.php?id=7&L=1%2F%2F%2F [7 May 2015]; for the list of Members and Observes of the ECT see http://www.encharter.org/index.php?id=61&L=1%2F%2F%2F [7.05. 2015].
[199] This issue is analyzed in-depth in Chapter 4.
[200] See Treaties Office Database of the European External Action Service, **Protocol Agreement to the Partnership and Cooperation Establishing a Partnership between the European Communities and their Member States, of the One Part, and the Russian Federation, of the Other Part** http://ec.europa.eu/world/agreements/prepareCreateTreatiesWorkspace/treatiesGeneralData.do?step=0&redirect=true&treatyId=203 [8.05.2015].
[201] Tatyana Romanova, "EU-Russia Energy Cooperation: Major Development Trends and the Present State", **Baltic Region,** Vol. 17. Issue 3 (2013): 4, http://dx.doi.org/10.5922/2079-8555-2013-3-1 [6.05.2015].
[202] Ministry of Fuel and Energy of the Russian Federation and the European Commission, **Memorandum of Understanding on Industrial Cooperation in the Energy Sector between the Ministry of Fuel and Energy of the Russian Federation and the European Commission, Moscow** (Moscow, 1999), http://www.russianmission.eu/userfiles/file/memorandum_on_industrial_cooperation_in_energy_sector_1999_english.pdf [9.05. 2015].

improve, because neither Russian nor European sides took any commitments that were outlined in the Memorandum.

A stable framework for conduct of energy cooperation between the parties, however, was achieved only with the formation of the Energy Dialogue institute during the EU-Russia Summit in Paris, 2000. The Dialogue has five primary objectives[203]:

- To improve the investment climate between the parties "through the opening up of the energy markets";
- To establish secure infrastructure;
- To promote utilization of eco-friendly technologies and energy resources;
- To exchange data on legislative frameworks;
- To "promote energy efficiency and energy savings on the way to a low-carbon economy."

To achieve these objectives, several special groups were set up such as thematic groups, energy strategies, forecast and scenario groups, market development groups, energy efficiency group and Gas Advisory Council. Within the framework of the thematic groups, mid and lower level officials from the Ministry of Energy of Russia and the EC, financial groups, and academic community representatives have a great opportunity to gather and discuss ways of improving the energy dialogue between Russia and Europe[204]. However, a Russian expert, Tatyana Romanova claims, such "work at the transgovernmental and transnational levels was strictly limited in time (six months)." In addition, Romanova says that due to the politicized nature of EU-Russia energy relations, these developments did not facilitate deeper integration among the parties[205]. Within the above-mentioned energy strategies, forecast and scenario groups, it is envisaged that the parties will exchange bilateral information and monitor the systems

[203] European Commission, http://ec.europa.eu/energy/en/topics/international-cooperation/russia [9.05.2015].
[204] Ibid.
[205] Tatyana Romanova, op.cit, 8.

to increase "transparency and mutual confidence in energy matters"[206]. However, as some critics mentioned, this group is able to "monitor only", thus no interaction could be gained[207].

Due to the inefficiency of some groups and the occurrence of the second gas dispute between Ukraine and Russia in 2009 with ensuing gas disruptions, Moscow and Brussels decided to establish an Early Warning Mechanism, the main mission of which would be to prevent further gas shutoffs in EU-destined gas, oil, electricity supplies of Russia[208]. But as we have seen from the ongoing Russia-Ukraine crisis, the mechanism could not fulfill its task and prevent gas disruptions.

Since the EU-Russia energy relations are based on mutual interdependence[209] and both are interested in enhancing the energy cooperation, despite the above-mentioned "failures", Moscow and Brussels formed *permanent* thematic groups by reorganizing the former ones in 2007. As a result, three Thematic groups ("a Thematic Group on Energy Strategies, Scenarios and Forecasts", "a Sub-group on Energy Economics under Thematic Group I" and "the Thematic Groups on Trade, Investments, and Infrastructure merged into a single Thematic Group on Energy Market Developments")[210] were re-established and paved the way to promote permanent dialogue and cooperation at the transgovernmental level[211]. In 2011, the adopted cooperation scheme underwent further changes[212]: the EU-Russia Energy Dialogue from now on is based not on three, but five thematic groups, which are engaged with electricity, nuclear energy, strategy, and energy efficiency. The principal objective of these groups is to set up common European market by 2050[213]. Apart from these thematic groups, contacts between Russian and European associations, societies and companies related to energy security have been established[214].

[206] European Commission.
[207] Tatyana Romanova, op.cit.
[208] European Commission.
[209] See previous pages of the thesis.
[210] "EU-Russia Energy Dialogue: The First Ten Years: 2000-2010".
[211] See Appendix 1.
[212] For the Energy Dialogue`s modified structure see Appendix 2.
[213] Tatyana Romanova, op.cit, 9.
[214] Ibid.

In regard to the legal bases of the energy dialogue between Moscow and Brussels, the formation of the legal tools could be divided into three stages. The first stage covers the period from the collapse of the Soviet Union until 2006. As outlined before, the most significant documents that were adopted during this timeframe are the problematic ECT[215] and the PCA. According to the Russian side, most of the first-stage agreements were concluded with dominance of Europe. Therefore, in the second stage, Moscow decided to fix the situation and proposed the general declaration and principles[216], which, as the Kremlin states, are "based on the needs of not only consumers, but also suppliers"; however, they were not well received by the EU member states. The third stage started in 2012 and was mostly connected with Russia`s accession to the World Trade Organization (WTO)[217]. With the continuing Ukraine-Russia crisis and, as a consequence, deterioration of the EU-Russia relations, it is not unreasonable to suggest that the existing legal and institutional frameworks between the parties appear to be ineffective.

In 2013, the parties adopted the "Roadmap EU-Russia Energy Cooperation until 2050." This document considers the current EU-Russia interaction in energy sectors like oil, gas, electricity and renewable energy. In regard to the gas dialogue between Russia and the EU, the Roadmap reiterates the fact that successful continuation of the EU-Russia gas partnership is only possible with a fully integrated and open gas market. It also emphasizes the fact that the future of gas demand and gas imports, as a consequence of the role of Russia, in post-2035 and especially post-2040 periods is unpredictable[218].

Apart from *joint* documents, the parties adopted some documents that also play a significant role in the EU-Russia Energy Dialogue. By way of illustration, in 2003 Russia adopted "Energy strategy of Russia for the period up to 2020", where the Kremlin highlights the significant role of Europe as an energy market and makes a

[215] The reason for such definition is clarified in the Chapter 4 of the thesis.
[216] For details see the Official Website of Russia`s G8 Presidency, http://en.g8russia.ru/docs/russia_and_g8/history.html [9.05.2015].
[217] Tatyana Romanova, op.cit, 11.
[218] European Commission, **Roadmap EU-Russia Energy Cooperation until 2050** (Brussels, 2013), http://ec.europa.eu/energy/sites/ener/files/documents/2013_03_eu_russia_roadmap_2050_signed.pdf [7.05. 2015].

forecast regarding the volumes of gas that will be supplied to the EU[219]. Since the Russian government decided that an energy strategy should be renewed at least once in five years, other strategies have been adopted for the period up to 2030[220] and 2035[221]. We see in the main provisions that the focus slightly shifted from Europe to the APR.

In the EU, in contrast to Russia, it is always hard to adopt a common energy document, since the EU member-states are more likely to accept the energy policy as a part of national policy rather than a supranational one. Notwithstanding, several documents related to the energy policy were adopted at a level of the EU. The "Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy" of 2006 is a case in point. The Green Paper defines six key fields, where the collaboration among the EU members-states is required. These areas are "competitiveness and internal energy market", "diversification of energy mix", "solidarity", "sustainable development", "innovation and technology" and lastly "external policy." It argues that the EU could provide energy security by reducing its overall import dependence, diversifying its energy supplies through additional pipelines and LNG-terminals, and increasing energy efficiency. Furthermore, the paper appeals for a coherent energy policy; since it is envisaged that only through the common policy and concerted efforts "sustainable, competitive and secure energy"- the main objective of the EU energy policy - could be achieved. It also makes recommendations regarding the energy market liberalization, environmental issues and so on[222]. The need to establish a coherent and united energy policy is also mentioned in the Lisbon Treaty (2009), which is accepted as "a new legal framework for energy cooperation"[223].

Since the EU is very concerned with climate issues, the 2020 Energy Strategy was adopted. According to this, the EU member-states should decrease greenhouse

[219] Ministry of Energy of the Russian Federation, http://minenergo.gov.ru/activity/energostrategy/ch_2.ph [9.05.2015].
[220] Ibid., http://minenergo.gov.ru/activity/energostrategy/ch_6.php#l5 [10.5. 2015].
[221] Ibid., http://minenergo.gov.ru/upload/iblock/621/621d81f0fb5a11919f912bfafb3248d6.pdf [10.05.2015].
[222] Commission of the European Communities, "Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy" (105 final; Date 8 March 2006), http://europa.eu/documents/comm/green_papers/pdf/com2006_105_en.pdf [10.05.2015].
[223] Tichý Lukáš, "Controversial Issues in the EU-Russia Energy Relations", **CENAA**, http://cenaa.org/analysis/controversial-issues-in-the-eu-russia-energy-relations/ [28.04. 2015].

emissions by 20% by 2020 as compared to 1990, increase the share of renewable energy by 20% in the EU mix and improve the energy efficiency by 20%[224]. However, recently the EU raised the bar and set even more ambitious targets: a 40% reduction in EU greenhouse emissions compared to the 1990 levels, at least a 27% share of renewable energy consumption and increase of energy efficiency by 30%[225].

As we have seen above, within the EU-Russia Energy Dialogue numerous documents were adopted, numerous conferences and seminars were held, and numerous thematic groups were created[226]. Also the required institutional and legal bases for successful cooperation were formed; however, "energy security based on the principles of open, competitive markets and sustainable development"[227] is still not achieved between the parties. From the Russian perspective, the reason is that "…a number of previously adopted decisions in the EU do not seem to us [Russians] to promote reconciliation of our [Russia-EU] positions"[228]. In the following pages we analyze how the parties, apart from the above-mentioned ways of improving the energy dialogue, tried to cooperate in order to secure energy security.

3.3.2. Improving Energy Security through Diversification of Routes

Along with establishing the legal and institutional bases in the energy sector, the parties are actively engaged with securing energy security through diversification of gas-supply routes. By doing so, however, the EU and Russia are pursuing different targets: the former is trying to secure its gas supplies, while the latter- its gas demand.

As we have seen from Chapter 2, the origins of EU-Russia gas interdependence can be traced back to the 1960s, when Austria, as a pioneer (to use the Cold war terminology) from the West European countries, started to export the red gas across the Iron Curtain. Since then, Europe has become a permanent and lucrative customer of the

[224] European Commission, http://ec.europa.eu/clima/policies/package/index_en.htm [10.05.2015].
[225] Ibid., http://ec.europa.eu/energy/en/topics/energy-strategy/2030-energy-strategy [10.05.2015].
[226] Both at national and supranational levels.
[227] The aim of the ECT, see previous pages.
[228] Amelia Hadfield, Adnan Amkhan-Bayno, "From Russia with Cold Feet: EU-Russia Energy Relations, and the Energy Charter Treaty", **International Journal of Energy Security and Environmental Research**, Vol.1, Issue1 (2013):12, http://www.menachambers.com/people/adnan-amkhan-bayno/From%20Russia%20with%20Cold%20Feet%20-%20MENA%20Chambers.pdf [23.5.2015].

Kremlin. Even after the end of the bipolar confrontation, Europe, despite the organizational turmoil in the Russian energy sector, continued to export gas from Russia through an existing Soviet pipeline grid that mostly passed through the territory of Ukraine, as shown in Table 6[229].

Table 6: Russia`s Europe-destined Gas Pipelines[230]

Pipeline	**Direction**	**Capacity 2012 or 2015 (bcm)**
Brotherhood & Union / Soviet pipeline grid	Russia / *Ukraine* / Central Europe	130
Polar Lights / Soviet pipeline grid	Russia / Belarus / *Ukraine* / Central Europe	25
Trans-Balkans / Soviet pipeline grid	Russia / *Ukraine*/Balkans	20
Finland Connector / Soviet pipeline grid (extended in1999)	Russia / Finland	20
Yamal-Europe (1999)	Russia / Belarus / Poland / Western Europe	33
Blue Stream (2002)	Russia / Black Sea / Turkey	16
Nord Stream (2011)	Russia / Baltic Sea / Germany	27.5
South Stream / Turkish Stream/Balkan Stream	Russia / Black Sea / Turkey / Europe	63, including 47 to be supplied to the Turkish-Greek border

Susanne Nies, op.cit, 70; Gazprom Export, http://www.gazpromexport.ru/en/projects/ [11.05. 2015].

Ukraine after the collapse of the USSR, like other newly independent states, had a tough time. It was not capable of paying for Russian gas and had accumulated a large gas debt to Russia, which later resulted in the gas disputes between Russia and Ukraine.

[229] As outlined in the subchapter 3.1, current situation does not change so much, and Ukraine continues to be as a major transit country for EU-destined Russian gas. See subchapter 3.1.3.

[230] Apart from the afore-mentioned pipelines Gazprom is developing alternative routes destined to consumers in Far East and China (within the framework of its Eastern Gas Program). The estimated projects aim at diversifying Russia`s exports and include itself construction of a LNG plant (first in Russia) in Sakhalin and the "Power of Siberia" pipeline with a capacity of 61 bcm. The above-said LNG plant was built in 2009; by 2014 it has already liquefied 50 million tons of natural gas. For more details about the projects and Gazprom"s Eastern Gas program see the Website of Gazprom Export, http://www.gazpromexport.ru/en/projects/2/ and Gazprom http://www.gazprom.com/about/production/projects/east-program/ [30.07.15].

Russia, not willing to lose its image as a reliable gas supplier which it had earned during the Soviet Union, therefore, started to search for ways to bypass Ukraine. To this end, the *Yamal- Europe Pipeline or Belarus Connector*[231] decided to be constructed[232]. The Yamal Pipeline, as it seen from Table 6, runs through the territories of Russia, Belarus, Poland and Germany and its main aim, according to Gazprom, is to improve "flexibility and reliability of Russian gas supply to Western Europe"[233]. What makes this project significant is that it was the first post-Cold War pipeline built jointly by Russia and European countries.

The next route, which also aims at circumventing Ukraine, is the *Blue Stream* (see Table 6 above), built during 2001 and 2002. The main particularity of the pipeline is that it is Russia`s first offshore and simultaneously "mountain-crossing" pipeline[234]. It brings Russian gas to Turkey across the Black Sea bypassing third party countries and supplements an already existing route, which runs through Ukraine, Moldova, Romania and Bulgaria. Being constructed by joint forces of Gazprom, Italian ENI and Turkish Botaş, the Blue Stream is particularly important for Gazprom and Turkey. By doing so, the former has expanded its export routes by bypassing Ukraine and has increased its presense in the strategic Turkish market; the latter, in turn, has increased its role as a main energy hub[235] between the East and the West[236]. With the cancellation of the Russia-invested South Stream (for reasons which are presented below), Ankara`s role as a transit country is expected to be strengthened.

In contrast to the afore-said diversification of supply routes, an alternate route *Nord Stream*[237]- a pipeline that transports gas from Russian Vyborg to German Greifswald under the Baltic Sea, thus circumventing Ukraine and Poland- was not

[231] For more details about this pipeline see Nadejda M. Victor, David. G. Victor, "The Belarus Connection".
[232] Susanne Nies, op.cit, 71; Dima Böhme, op.cit, 113.
[233] Gazprom, http://www.gazprom.com/about/production/projects/pipelines/yamal-evropa/ [11.05. 2015].
[234] The pipeline crosses a highland terrain of Kobyla and Bezymyannny Ridges.
[235] Ankara is aiming at improving its role as a reliable transit country not only in the East and West energy axis, but also in the North and South one too. V. Türkiye Cumhuriyeti Dışişleri Bakanlığı, **Türkiye`nin Enerji Stratejisi**, http://www.mfa.gov.tr/turkiye_nin-enerji-stratejisi.tr.mfa [11.05. 2015].
[236] Dima Böhme, op.cit, 118; Website of Gazprom, http://www.gazprom.com/about/production/projects/pipelines/blue-stream/ [11.05.2015].
[237] History, status quo and technical features of the project can be found in Susanne Nies, op.cit, 73-76.

evaluated positively[238] by some European countries. The project was controversial as it had provoked debate among the EU member-states because of the bypassing of new member states, environmental issues, economic concerns and its sustainability in comparison to the Yamal-Europe, for example[239]. With respect to the bypassing issue, Nord Stream was accepted as "a disregard for small countries", which, inter alia, were newly accepted into the EU,[240] and a great chance for Russia to decrease supplies and transit fees to states it had difficult relations with due to historical reasons. Thus, the project was perceived by some states, in particular by Poland[241], as "a new version of the 1939 Molotov-Ribbentrop pact –a German-Russian condominium that was against Poland`s interests"[242].

There were ecological issues that were related to the ammunition that had been sunk in the Baltic Sea during and after World War II. However, despite the extensive political debates regarding merits and demerits of the Nord Stream, the pipeline has been operating since 2011 with an annual capacity of 27,5 bcm[243].

Generally speaking, all these pipelines were constructed in order to diversify gas supply and ensure European energy security and Russian security of demand, thus we can say that the above-listed pipelines are based on cooperation. However, the following routes, which envisage involvement of gas resources of Caspian Sea and Central Asian region (CAR), is a case, when the EU and Russia`s opinions are divided. Hence, in the case of the Caspian energy, the parties are not cooperating for energy security, but on the contrary, are *competing* to secure the energy security: the EU is trying to reduce its gas dependence on Russia and looking for alternative gas suppliers, while Russia, obviously, is not letting the EU break away from Russian dependence, thus securing the demand on its supply and blocking European attempt to enter the CAR, the region which, in the words of the Kremlin, belongs to traditional spheres of influence of Russia.

[238] Though relatively.
[239] Susanne Nies, op.cit, 77.
[240] Ibid.
[241] In response to the project, Warsaw proposed an "Amber pipeline" passing through all bypassed Baltic States and Poland, but the proposal was rejected by Moscow. V. Dima Böhme, op.cit, 115.
[242] Angela Stent, **The Limits,** op.cit, 196.
[243] Ibid.

The origins of the "Caspian battle" can be traced back to the 1990s, when the idea of a pipeline or pipelines, connecting the Caspian Sea gas producers[244] and Europe, was being actively discussed among the EU member-states. However, the first negotiations, backed by the European Commission, commenced in the early 2000s. Within these negotiations, it was decided to construct a new *Nabucco*[245] pipeline, which would transit Turkmen gas through the territories of Azerbaijan, Georgia and Turkey to south-Eastern Europe. In 2008 the project turned into the "Southern Gas Corridor" (SGC), which, inter alia, was officially supported by the European Commission. The main problem of the project was that Europe could neither firmly agree on gas supply with Turkmenistan nor clarify the question of actual demand of this project[246]. For these and other reasons, later a shorter version of Nabucco – "Nabucco-West" Project was proposed, which would transport Azeri gas through Turkey and Bulgaria to Austria. However, in 2013 due to the fact that the Azeri gas operator preferred the rival Trans-Adriatic Pipeline (TAP) (which will be presented below) instead of the "Nabucco-West", the realization of the project came to a deadlock before it even started[247].

As we have seen, Turkmenistan and Azerbaijan play a role of potential gas suppliers in the SGC. However, since the link to Azerbaijan has been established already, for the time being the Azeri project, according to which gas from the Shah Deniz Field 2 is developed for European countries, occupies a prominent place in EU`s diversification plans. Along with the Shah Deniz 2, the following routes could contribute to European energy security[248]:

- The Trans Anatolian Pipeline (TANAP) through which 16 bcm/year of the Caspian gas could be transported through Turkey to Europe;
- The Trans Adriatic Pipeline (TAP) which will bring 10 bcm/year of the Caspian gas to Albania, Greece, Italy;

[244] Information regarding gas reserves of Central Asian countries could be found in Appendix 3.
[245] Named after the Verdi Opera, during which the idea of such pipeline was born. V. Ibid., 200.
[246] Ralf Dickel et al., op.cit, 24.
[247] "Nabucco Bitti TAP Gündemde", **CNN Türk**, 28 June 2013, http://www.cnnturk.com/2013/ekonomi/genel/06/28/nabucco.bitti.tap.gundemde/713397.0/index.html [12.05. 2015].
[248] Ralf Dickel et al., op.cit, 24.

- The South Caucasus Pipeline (SCP) through which the Caspian gas will be transported to Georgia and Turkey.

As we have seen, the EU is making tremendous efforts to reduce its gas dependence on Russia; whereas Russia is suspiciously observing those efforts and trying to prevent the EU`s SGK with rival projects like *South Stream/Turkish Stream/Balkan Stream* which are projected to follow relatively the same transit route as the EU`s Nabucco.

The Russian South Stream began with Italian ENI and Russian Gazprom announcing their joint venture to construct a new pipeline across the Black Sea in 2006. Subsequently, other countries also showed interest in the South Stream: Germany, France, Hungary, Bulgaria, Greece, to name but a few. Thus, the project serves as a competitor with EU-supported "Southern Gas Corridor", especially with Nabucco and TAP (see above), since it would channel Caspian gas via the Russian grid, and "Russianize" the gas[249].

According to the experts of the Oxford Institute for Energy Studies, the timing of commencement (2006) regarding the South Stream was not a coincidence, but a planned decision of the Kremlin. Since Gazprom announced about the South Stream -another diversification route that circumvents Ukraine -right after the 2006 Ukrainian gas dispute, thus, allegedly showing European countries that Ukraine is not a reliable transit country, and therefore this transit dependence should be eliminated as soon as possible[250]. However, it is not unreasonable to suggest that the real reason for Gazprom`s initiative was to block the route to the SGC and prevent EU`s active involvement in the CAR. However, no matter what had triggered Russia to start the South Stream, the important thing is that Russia again managed to divide Europe into two groups: one who supported the Russia sponsored project and the other who supported the EU sponsored SGC. Despite the promising beginning, the project was never carried out, since it was not compatible with the EU`s Third Energy Package

[249] Susanne Nies, op.cit, 87.
[250] Jonathan Stern, Simon Pirani, Katja Yafimava, "Does the Cancellation of South Stream Signal a Fundamental Reorientation of Russian Gas Export Policy", **OIES** (2015), http://www.oxfordenergy.org/wpcms/wp-content/uploads/2015/01/Does-cancellation-of-South-Stream-signal-a-fundamental-reorientation-of-Russian-gas-export-policy-GPC-5.pdf [27.04.2015].

(TEP)[251], a package which includes ownership unbundling, i.e. a separation of companies` production, sales and transmission grids[252]. In other words, according to the European side, the South Stream Project had been cancelled due to the TEP incompatibility in December 2014; whereas Russia blamed Bulgaria for its constant postponing of the project construction on its territory and triggering the cancellation of the project[253].

However, Russia managed to quickly replace the South Stream by Turk Stream[254]- an offshore project which envisages bringing Russian gas across the Black Sea to Turkey and further to the EU member-states through the Greek territory. Therefore following the cancellation of the South Stream, Ankara and Moscow signed a Memorandum of Understanding. Moscow and Athens also recently signed a Memorandum of Cooperation on the construction of the Turk Stream[255]. Moreover, it is often argued that the Turk Stream might be connected with the so called Balkan Stream- a Russia-sponsored pipeline in Macedonia being constructed since 2014[256]. According to Nurşin Ateşoğlu Güney, a possible implementation of this Balkan-Turkish Stream could have a positive impact on Central and Southern Eastern European countries which are in high need of natural gas. On the other hand, it is also suggested that the expansion of the Turk Stream to the Balkan Stream could hamper the operation of TANAP/TAP project[257]. It is hard to say something concrete regarding the further development of the project, however, it is possible to say the cancellation of the South Stream and potential realization of the Balkan-Turkish Stream may considerably change EU-Russia gas relations. If realized, the project could divide the EU Europe and non-EU Europe like the Balkan countries due to the fact that the latter group of states would be unlikely to decline additional volumes of 10-20 bcm of "door-to-door" delivered Russian "blue

[251] Ibid. The TEP issue is analyzed in-depth in Chapter 4 of the thesis.
[252] As we have seen in the previous subsections, Gazprom dominates both upstream and downstream activities.
[253] Jonathan Stern, Simon Pirani, Katja Yafimava, op.cit.
[254] Another name Turkish Stream.
[255] Gazprom, http://www.gazpromexport.ru/en/projects/6/ [12.07.2015].
[256] Nurşin A.Güney, "Turkish Stream and Balkan Stream: Reality or a Myth?", **Bilgesam Analysis**, No.1214 (2015), http://www.bilgesam.org/Images/Dokumanlar/0-100-20150514591214.pdf [12.07.2015].
[257] Ibid.

gold”[258]. In that case, the EU Europe would be unable to implement its energy diversification projects in a proper way and, consequently, to lessen its heavy dependence on Russian hydro-carbons.

[258] Ibid.

4. THE EU-RUSSIA ENERGY DIALOGUE: WHAT WENT WRONG AND FUTURE EXPECTATIONS

From the previous chapters we have seen that the EU and Russia have established the institutional and legal bases of the energy dialogue, and have made considerable efforts in order to *ensure European energy security*. To that end, additional diversification routes have been constructed such as Nord Stream, Blue Stream and Yamal-Europe; others like the "Southern Gas Corridor" and "Turkish Stream" are potential gas pipelines, which are not operational yet. However, nowadays it is quite clear that the above-mentioned joint target has not been achieved; therefore, the following question arises: "If both parties would like to cooperate and, as they state, have similar objectives, why is the "energy security based on the principles of open, competitive markets and sustainable development" still not achieved? In the following sections we will try to understand the reasons that have caused this failure.

4.1. Politicization of the EU-Russia Energy Dialogue

First and foremost, the main reason for the failure is that the EU-Russia energy relations are too politicized in both the European Union and Russian Federation. The term "politicization of gas relations" is actually used in cases when a gas trade starts to take a political overtone, and general gas relations between a gas supplier, buyer and transit countries are impacted by political reasons. Moreover, it is often argued that the term "politicization" is synonymous with "securitization", a process when gas supplies are turned into a security issue[259]. And every actor tends to politicize an issue or process which is of particular importance to them; for example, Russia securitizes/politicizes gas demand, the EU gas supply and transit countries- their transit role.

[259] Marina Zvonareva, "Dr Andrey Belyi on the EU-Russia Troubled Relationship", **Natural Gas Europe**, 29 January 2015, http://www.naturalgaseurope.com/dr-andrey-belyi-russia-troubled-relationship [13.07.2015].

The reason of the politicization, according to Viatcheslav Morozov, lies in the fact that the EU and Russia as political projects perceive themselves as an empire- one with the center in Brussels, the other- in Moscow[260]. An interesting fact is that both of the empires are seeking to ensure energy security —that is to say they have the same aim. But due to the fact that one of them is a gas exporter, the other a gas importer, they utilize different approaches to reach that target.

The Brussels-centered empire strives to guarantee long-term security of supply—that is to say, long-range security of supply from *Russia*[261], since, as it was outlined earlier, the EU`s domestic production is already on a path of decline. Russia, as one of the world`s top energy producers, has sufficient experience in providing Europe with gas supplies since the Cold War times. From the EU perspective, this means that since the EU is "destined to be dependent" on Russia`s gas imports, it has to build stable energy relations with its major gas supplier in order to be able to ensure its energy security. However, the EU-presented tools of gaining stable energy relations with Russia combine both economics and politics, since they envisage that "the only way to ensure stability of supplies on the part of Russia is to spread the principles of the EU internal market beyond the Union`s borders." Toward this end, Brussels attempts to push the issues of Gazprom`s monopolization of the gas market, improvement of investment climate and energy efficiency, a limited access of foreign companies to upstream and downstream sectors of Russia`s gas production processes and a closed market in every document. In other words, it calls for reforms in the gas sector of Russia, since it believes that only with de-monopolization of the Russian gas sector and improvement of investment climate the EU energy security could be ensured[262]. Furthermore, the Brussels-centered Empire strives to integrate Moscow into its market regime through the package of bills on energy liberalization and ratification of the Energy Charter Treaty, the thorough analysis of which will be presented below.

According to the Russian expert Tatiana Romanova, the EU is trying to apply not only its market mechanisms on Russia, but also legal norms too. As the expert claims,

[260] Pami Aalto (Ed.), **Energy Dialogue and the Future of Russia: Europe`s Future Energy Security**, (USA: Ashgate Publishing Company, 2008), 43-61.
[261] Ibid. 46-49.
[262] Ibid.

the EU attempts to push Moscow to accept those norms and mechanisms, despite the fact that those norms cannot "ensure optimum solutions even within the EU, and simply represent the conditions acceptable to the majority of its members." Russia, in response, states that by doing so Brussels further complicates already politicized energy relations and denies the principle of equal partnership "which is [allegedly] key to Russia`s foreign policy"[263].

Another Russian expert, Gusev, stated that Brussels attempted to bind Moscow to "integrate" during the negotiations regarding the prolongation of the PCA (see the previous chapter) too. According to this expert, while the Kremlin was trying to conclude a quite laconic agreement which covers only basic principles and aims of cooperation between the parties, Brussels was seeking for a more comprehensive agreement, one that had to be based on democratic standards and rule of law, and also had to stipulate insurance of European energy security[264].

However, it is erroneous to assume that Brussels forces only Moscow to accept its internal economical mechanisms and legal norms, since representatives of the so-called "New Europe" and other states have also went through this during the EU enlargement process[265].

As mentioned in the beginning of this chapter, the EU-Russia energy dialogue is not politicized unilaterally by either Brussels or Moscow: both parties` energy policy includes a combination of economy and politics. Russia, similar to the EU, conceives itself as an empire with the centre in Moscow and the sphere of interest extending to members of the former Soviet space. That means that as soon as the EU starts to interfere with Russia`s "historical spheres of interest", the Kremlin, in order to defend its

[263] Tatiana Romanova, "Russia-EU Energy Ties: Problems and Possibilities", **Russian International Affairs Council** (2013), http://russiancouncil.ru/en/inner/?id_4=1790#top-content [13.05.2015].
[264] A.S. Gusev, "Sotrudnichestvo Rossii i ES v Oblasti Energetiki v Svete Novogo Energeticheskogo Dogovora**",The Bulletin of Lobachevski State University of Nizhni Novgorod**, Vol. 3, Issue 1 (2010), http://www.unn.ru/pages/issues/vestnik/99999999_West_2010_3/46.pdf [14.05. 2015].
[265] According to Morozov, this could be explained by the fact that EU as an empire is attempting to guarantee its external security by continued enlargement. For details see **Energy Dialogue and the Future of Russia: Europe`s Future Energy Security**, 45.

Moscow-centered empire, starts to use its energy as an effective tool of foreign policy—that is, to politicize the energy dialogue. As Morozov clarifies[266]:

> "Being confronted with the tough position of the EU bureaucracy, which refuses to consider any proposal about a "special relationship" with Russia or any other way of recognizing Russia`s role as an independent power in the new Europe, Moscow reacts by using all means –real or imaginary –of insisting on its independent position and influencing the pan-European development."

Russia`s attempts to politicize the energy issue is abundant with examples, in particular in the cases regarding the transition issue, diversification of gas supply routes and so forth. Moreover, Russia is "destined" for the politicization of its energy security, since its energy giant`s (Gazprom`s) executive management is presented by the circle of people who have very close relations with the Kremlin (see Chapter 3.1.1.). Therefore, no matter how many times Moscow reiterates that their "energy problems with Europe are purely economic"[267], it is obvious that any decision of state-owned Gazprom cannot contradict the Kremlin`s interests, since Gazprom and the state form a whole —the name of which has assumed Petro Kremlin. Russia-supported diversification routes to the EU, in particular Nord Stream pipeline, are a case in point. Even though the official aim of the project was to ensure Russian natural gas supplies to Europe via bypassing problematic Ukraine, it is sometimes argued that the project was also aimed at reducing the importance of the small states like Poland or the Baltic States as transit countries, since their foreign policies mostly pursue an anti-Russian vector[268]. In addition, as some experts claim, the German-Russian Nord Stream came at a high cost, since it was constructed *under the Baltic Sea* bypassing all third party countries. Moreover, according to Nicholas Watson`s estimation, the Nord Stream was three times more expensive than a proposal by Poland for a land pipeline like Amber[269]. Thus, it could be concluded that Russia`s Nord Stream construction was not driven mostly by economic considerations, but by political ones.

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[266] Ibid., 50.
[267] Angela Stent, **The Limits**, 195.
[268] Ibid., 196.
[269] Nicholas Watson, "Poland Plots Downfall of Russia`s Nord Stream Pipeline with Allies` Help", **BNE Intellinews**, 23 January 2008, http://www.bne.eu/content/story/poland-plots-downfall-russias-nord-stream-pipeline-allies-help [16.05.2015].

Competing projects of Russia and Europe (South Stream/Turkish Stream/Balkan Stream versus the Southern Gas Corridor) regarding the Caspian gas reserves are also good examples of politicization of the EU-Russia energy relations. It is generally accepted that Russia controls the production and distribution of oil and gas in the Caspian Sea region (CSR)[270] and does not welcome any Western attempts to enter Caspian resources —alleged historical spheres of interests of the Kremlin. Therefore, Moscow, in order to obstruct the realization of the EU gas diversification projects, has decided to construct the rival pipeline to the EU`s Nabucco (see the previous chapter), light out some frozen conflicts in the Caucasus and take advantage of the undetermined legal status of the Caspian Sea[271]. It is important to mention that the last incidents could be used by Russia as political leverage systematically, whenever it wishes to challenge the EU energy policy in the CSR and "punish ambitious Europe."

Gazprom`s/Russia`s politicization of the EU-Russia energy dialogue is also clearly seen in the case of Russia`s gas disputes with transit countries. As we have seen from the previous chapter, though Gazprom claimed that the price increase or gas disruptions were not politically intended but purely commercial, we have seen this was the case when Gazprom used gas as an energy weapon in order to generate desired results. It is also obvious that the Kremlin`s tone and nature of dialogue with a transit country was due to political reasons. In the case of the Belarus-Russia energy dispute, it is argued that in 2010 Belarus-Russian relations had sharply deteriorated due to the fact that Minsk did not support Abkhazia and South Ossetia`s independence, and boycotted the Russian-led Customs Union[272]. As we have witnessed, this deterioration resulted in further gas disruptions in 2010. Thus, it would be fair to conclude that Russia`s gas crises with transit countries were also caused, even if not entirely, by political considerations.

The lack of a single "energy voice" in Europe and the energy security issue`s perception as a part of EU member-states' national security can also cause politicized gas relations between the EU and Russia.

[270] Nataliya Esakova, op.cit, 228.
[271] Ibid., 229.
[272] Katja Yafimava, "The June", op.cit.

It is generally accepted that several EU member-states tend to combine economics and politics when it comes to concerns regarding Russian gas. This kind of attitude is likely to be bound with historical stereotypes, as in the case of Poland and the Baltic countries.

According to analysts, the existing assymetric interdependence between some European countries and Russia (see Chapter 3.3) can impact relations between the respective EU member-states and Russia. Therefore, Mark Leonhard and Nicu Popescu allege that there are five different approaches of the EU member-states that best explain energy relations between European countries and Russia: "Troyan Horses", "Strategic Partners", "Friendly Pragmatists", "Frosty Pragmatists" and "New Cold Warriors"[273]. The first approach best describes Cyprus' and Greece's relations with Russia. These two countries always tend to defend Russian interests in the EU, and when required, even veto common EU suggestions. The "Strategic Partners" of Russia are France, Germany, Spain and Italy – countries which enjoy a "special relationship" with Russia and therefore enjoy benefits that go beyond EU strategy and sometimes speak out against some common EU objectives. In regard to the "Friendly Pragmatists" (Austria, Belgium, Bulgaria, Finland, Hungary, Malta, Luxembourg, Portugal, Slovenia and Slovakia) , these states also enjoy close relations with Russia and consider their business interests more important than political goals. The next group of countries like Czech Republic, Estonia, Ireland, Denmark, Latvia, Romania, Sweden and the United Kingdom also put importance on their business interests, but in contrast to the previous group are prone to criticize Russian policy when required. The last group "New Cold Warriors" -the most controversial one – includes two countries, Lithuania and Poland, which have a very hostile attitude towards the Kremlin and therefore often prevent the EU from negotiating with Russia[274].

Based on these groups, Mark Leonhard and Nicu Popescu defined two conflicting approaches that shape the energy strategy of the EU. Proponents of the first approach consider Russia as a potential partner that can contribute in gaining energy security on the European continent. Therefore, they attempt to integrate Russia into the

[273] Nataliya Esakova, op.cit, 165.
[274] Ibid.

EU market and encourage investment of Russia in the EU`s energy sector even if Russia does not always comply with European market rules and procedures[275]. Take, for instance, Germany's attitude towards Russia: Berlin always promotes Russian integration into the European unified energy market (perhaps it is due to historical reasons, see Chapter 2, i.e. Willy Brandt`s Ostpolitik), even after several gas disputes between Russia and transit countries, because it considers Russia as the major economic partner with whom it is necessary to collaborate[276]. On the other hand, there are some EU member-states (mostly from the 4th and 5th groups, see above) who view Russia as a threat and as a country who uses its energy as a weapon. According to them, in order to be able to contain that threat and weapon, Russia should be excluded from the G8, NATO should be extended to Georgia and Ukraine and so forth. In our case, in case of EU-Russia gas interdependence, these countries appeal to create an "Energy NATO"[277] and exclude Russian investments from the energy sector of Europe[278].

As we have seen, European energy strategy is split into two conflicting groups: one which puts its business relations above political goals and the other which decisions are strongly influenced by its political goals. Moreover, Russia and EU`s perception of themselves as a political Empire with different centers one in Brussels and the other in Moscow is further exacerbating the situation. Due to the existence of these reasons, the EU-Russia gas relations become more complicated and politicized.

4.2. The European Liberalization of Energy Markets and Implications for Russia

Generally speaking, the European attempt to politicize gas relations is clear from its decision to liberalize its energy market[279] and integrate Russia into it. To that end, the

[275] Ibid.
[276] However, Berlin`s such soft and positive stance towards Russia undertakes some changes during the ongoing Russia-Ukraine crisis. See Chapter 5.
[277] The idea to form the "Energy NATO" belongs to the one of the "New Cold Warriors" Poland. Within the "Energy NATO" it is supposed that the USA and the EU would combine its efforts to guarantee the security of Europe`s gas supplies. V. Aleksandra Gawlikowska-Fyk, Mark McQuay, Roderick Parkers, "A Dummy`s Guide to Forming an Energy Union", **The Polish Institute of International Affairs,** Vol.9, Issue45 (2014):1, https://www.pism.pl/files/?id_plik=17539 [25.05. 2015].
[278] Nataliya Esakova, op.cit, 165-166.
[279] For a brief history of the EU`s energy liberalization process V. Katja Yafimava, "The EU Third Package for Gas and the Gas Target Model: Major Contentious Issues Inside and Outside the EU", **OIES**, NG 75, http://www.oxfordenergy.org/wpcms/wp-content/uploads/2013/04/NG-75.pdf [17.05. 2015].

EU adopted the so-called "Third Energy Package for Gas" —a set of documents. Full implementation of these documents would bring considerable changes to the existing nature of energy exporter-importer relations —in particular the EU-Russia energy relations. Therefore, in this passage we will consider the main provisions of the "Third Energy Package for Gas" (or just "Third Energy Package", or TEP[280]) and possible implications of the TEP for Russia`s Gazprom.

The principal aim of the EU energy liberalization process is to form a competitive atmosphere inside and outside the EU through creating a competitive unified energy market and integrating existing and potential suppliers into it. It also targets at securing the EU energy gas supplies at low-cost prices[281]. As a tool for achieving the single energy market the EU envisages to apply the TEP. The major criteria are as following[282]:

- Unbundling (separation) of business segments;
- Improving regulative agencies;
- Transition from existing Point-to-Point regime to Entry-Exit one;
- Improving transparency in retail markets.

The unbundling criterion envisages mandatory "separation of energy supply and generation from the operation of transmission networks". To put it simply, the unbundling aims at eliminating "vertical integration", an arrangement which allows one company to control production, supply and distribution processes in the same industry[283]. In our case, the case of natural gas, the unbundling prohibits a single entity to be engaged with extraction of gas (producing networks) and gas pipelines (transmission networks) at the same time. According to the EC, "vertical integration"

[280] Since analyzing the overall liberalization process of the EU energy market is not our main aim, only several provisions of the TEP realization, of which would potentially influence on the EU major gas supplier- Gazprom -would be considered.
[281] Dominique Finon, Catherine Locatelli, "The Liberalization of the European Gas Market and Its Consequences for Russia", https://hal.archives-ouvertes.fr/halshs-00177828/document [20.05.2015].
[282] Katja Yafimava, "The EU"; European Commission, https://ec.europa.eu/energy/en/topics/markets-and-consumers/market-legislation [21 May 2015]; Tatyana Romanova, ""Tretii Paket" I Budushee Gazproma", **Global Affairs**, 15 December 2007, http://www.globalaffairs.ru/number/n_9959 [20.05.2015].
[283] "Vertical Integration", http://www.investopedia.com/terms/v/verticalintegration.asp [21.05. 2015].

poses a challenge to fair competition which, in turn, leads to high-cost energy (gas). To liquidate this disadvantage, the EU insists on separation processes, which could be done in one of three ways, depending on the choices of the EU`s member-states[284].

The first way is an ownership unbundling (OU). This way of separations envisages big producers to sell off their gas networks to independent companies. In this case, any natural gas supply or production company cannot own majority of the share and intervene in the transmission system operator[285].

The second way of separation envisages the preservation of assets of producing companies on gas pipelines on the condition that "the entire operation, maintenance, and investment" is given to an independent company/Independent System Operator (ISO)[286].

The last unbundling scenario`s main actor is the Independent Transmission Operator (ITO). In accordance with this scenario, a single energy supply company still has a right to possess and operate gas, but should do it through a subsidiary. In addition, "the owner" cannot influence the decision-making process if it is of particular importance[287].

After the first implementation of the above-mentioned unbundling requirements, the TSOs have a right to apply for certification with their national energy regulator. Without this certification none of the operators, including Gazprom, are able to work within the territory of the EU[288].

According to the EC, the unbundling process, despite its "apparent" complex way of implementation, will lower costs and provide the EU energy consumers with more choices[289]. The EU member-states also emphasize the fact that the overall liberalization process will have positive effects on the energy sector of the EU.

[284] European Commission, https://ec.europa.eu/energy/en/topics/markets-and-consumers/market-legislation [21 May 2015]; initially the EC campaigned for the OU only, when the transmission system operators (TSOs) are unable to own and control a transmission network. However, later, Brussels had to add two supplementary and less strict ways of unbundling due to a resistance of many EU`s member-states. See Katja Yafimava, "The EU".
[285] Ibid.
[286] European Commission, https://ec.europa.eu/energy/en/topics/markets-and-consumers/market-legislation [21.05. 2015]
[287] Ibid.
[288] Ibid.
[289]Ibid., http://ec.europa.eu/news/energy/081010_1_en.htm [21.05. 2015].

However, the unbundling requirement was not met unanimously by the member-states, since several TSOs and states, for instance, Germany and France, fiercely contested the process by questioning the economic benefits and legislative "accuracy" of the ownership unbundling[290]. With the addition of less rigid models of unbundling, the fierce disagreements among the member-states seem to be allegedly solved[291]. The concerns of Russia, however, have not yet been "solved": the envisaged unbundling is accepted as a discriminatory measure against Russia and even as a direct confiscation of property[292]. As we have seen from Chapter 3.1.1. the Russian state-owned giant`s expansion strategy is based on gaining overall control over all transit routes, including those within the EU; to that end, it purchased "blocking stakes" in about 70% of gas distribution organizations. With the implementation of the unbundling, Gazprom is not able to have full control over those transmission networks.

All these disagreements between the EU and Russia concerning the unbundling process later were known as the **"Gazprom Clause".** The "Clause" was believed "to be established" after the opinion that the first model of unbundling —the OU —weakens the bargaining position of a supply company against an external energy supplier that they rely on. In addition, EU legislators claimed that possession or management of the transmission system, or the TSOs, by a non-EU country is a serious threat to the security of energy supply in the EU. These and other circumstances, therefore, triggered the EC to adopt the special directive that obliges companies from third countries to follow the same unbundling requirements at home (read in Russia) before buying European network assets[293]. This requirement was recently named as "reciprocity" or "third country" clause[294].

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[290] Due to the oppositions the EC has to enlarge the list of models of unbundling with two less strict forms. See the previous page.

[291] Christian Growitsch, Marcus Stronzik, "Ownership Unbundling of Gas Transmission Networks – Empirical Evidence", http://www.ewi.unikoeln.de/fileadmin/user_upload/Publikationen/Working_Paper/EWI_WP_11-07_unbundling_gas.pdf [21.05.2015]; Tatyana Romanova, ""Tretii Paket".

[292] Cheslovas Ishkaukas, "Tretii Energeticheskii Paket: Bor`ba mejdu Rossiei i ES", **Geopolitika**, 21 March 2011, http://www.geopolitika.lt/?artc=4555 [21.05. 2015].

[293] Thomas Cottier, Sofya Matteotti-Berkutova, Olga Nartova, "Third Country Relations in EU Unbundling of Natural Gas Market: The "Gazprom Clause" of Directive 2009/73 EC and WTO Law", **Swiss National Centre of Competence in Research**, Working Paper No 2010/06 (2010),

According to the Directive, as it already outlined, the non-EU countries should satisfy definite criterion if they are wanting to be in charge of the EU`s strategic transmission systems. Moreover, the EC, in order to control the open gas market and guarantee the energy supply security, has declared that representatives of third countries should receive, as was mentioned before, certification. However, not every gas supplier can get the certification from national legislators if the "unbundling of transmission systems and transmission system operators and the security of supply risk assessment" are not met[295].

Incompliance with the TEP requirements with ensuing "uncertification", inter alia, might have an adverse impact on **investment capacity of Gazprom**. In that scenario Gazprom has to either desist from further investment in the EU market or open up to rule-based investment by EU companies. This situation could cause reciprocity and limit European investments into the Russian energy sector — at least until the market rules in Russia are changed[296]. Bearing in mind that Russia is greatly in need of European FDI (see Chapter 3.3), it could be fairly concluded that the above-mentioned scenario will considerably retard the development of the Russian gas industry or even Russian economy[297]. This investment-reciprocity clause, according to Tatiana Romanova, once again proves the fact that the EU-Russia energy cooperation is perceived through the prism of security policy by Brussels; while Moscow just strives to maximize its profits[298].

Another "stumbling block" in EU`s gas market liberalization relates to the EU`s intention to **move from the existing point-to-point system (PP) to an "entry-exit" (EE) system.** This clause is especially problematic for Russia, since all of Russia`s

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http://www.wti.org/fileadmin/user_upload/nccr-trade.ch/wp5/Access%20to%20gasgrids.pdf [21.05. 2015].

[294] Since Gazprom is the EU`s largest gas exporter, it is sometimes suggested that the directive intends to prevent especially Gazprom to make acquisitions in the EU gas market; therefore, the clause is often named as "Gazprom Clause".

[295] The reasons that could lead to the rejection of the certification are considered in-depth in Thomas Cottier, Sofya Matteotti-Berkutova, Olga Nartova, op.cit.

[296] Jonas Grätz, "Energy Relations with Russia and Gas Market Liberalization", http://library.fes.de/pdf-files/ipg/ipg-2009-3/06_a_graetz_us.pdf [21.05.2015].

[297] Russia receives most of its hard revenue earnings from energy exports. Russia cannot export the "blue gold" if its gas industry will not be invested. See the previous chapters.

[298] Tatiana Romanova, "Tretii Paket".

existing gas supply contracts with EU members are mainly LTCs —which are based on the PP system. Under the PP regime Gazprom is obliged to deliver its gas to the delivery point at the border flange, from where gas is purchased by a trader and put into a hub. Later the gas is bought by a "downstream" shipper, whose main duty is to ship the gas across the transmission system to an end-customer. As Katja Yafimava, an expert from the Oxford Institute for Energy Studies, mentions, the main characteristic of the PP regime is that gas starts being traded before it enters the transmission system[299].

As for the EE system, it stipulates that gas trading would be realized after gas enters the transmission system; gas could enter the transmission system only when a seller books entry capacity. The "downstream" shipper is also required to have exit capacity to take gas from the transmission system. Furthermore, the regime obliges a gas seller (in our case, Gazprom) to pay an entry tariff, so its gas can be delivered to a virtual trading point (VTP) and then resold to traders. In other words, under the EE system, old contracts based on the PP regime have to be divided in two contracts, since an "entry" shipper is required to have an entry capacity contract and an "exit" shipper — exit capacity contracts[300]. So implementation of the EE system might envisage re-negotiations of traditional contracts.

In addition, it is sometimes suggested that transitioning to the EE system could trigger a 20% **gas capacity loss** by TSOs. Because under the EE system TSOs could propose only guaranteed capacity, though they might have additional capacity which would not be guaranteed. So Gazprom[301] under the new regime could have less transportation of gas capacity than under its existing capacity contract and therefore could fail to meet its contractual obligations[302].

Another contractual clause of the TEP is **market pricing** and the possible **cancellation of the LTCs in favor of spot gas deals**. This situation could seriously

[299] Katja Yafimava, "The EU", 37.
[300] Ibid., 37-38.
[301] As experts from the Oxford Institute for Energy Studies state, every gas supplier/shipper can experience the problem of insufficient capacity in theory. However, due to the fact that none of the other gas suppliers export tens of bcm of natural gas to Europe (as we have from the previous chapter, Gazprom exports 160 bcm/year) and crosses multiple borders to reach delivery points, it could be fairly concluded that the problem of capacity loss would be more destructive to Gazprom only. See Appendix 4 for information about Russian gas supplies to Europe and its borders and delivery points.
[302] Ibid., 38.

damage Gazprom`s interests, since all conducted gas contracts between Russia and European countries are long term and linked to the oil prices[303]. Termination of the LTCs (with take-or-pay clause), from the Russian perspective, results in a vicious circle: it reduces scale of investments which help to develop gas fields and infrastructure, and ensure deliveries and stable earnings[304].

As we have seen above, the EU liberalization of the gas market, notably the so-called Third Energy Packages creates significant problems for the future role of Gazprom on the European gas market. However, as it was mentioned at the beginning of the passage, by doing so Europe hopes to integrate Russia into its liberalized market and contain its increasing influence on the energy sector of Europe. Russia, in turn, perceives the adopted TEP as a direct anti-Gazprom clause, blames the EU in attempts to threaten Gazprom`s security of supply and naturally shows no willingness to follow the TEP. As a consequence, almost already politicized EU-Russia gas relations have become more complex with little to no likelihood of a positive outcome. This is due to the fact that both parties probably are pursuing different targets. Russia's target — to ensure the security of demand and maximization of profits, the EU's — to ensure security of supply and liberalization, with perhaps one joint objective- security of transit. In connection with the ongoing crisis in Ukraine, the old disagreements between the parties intensified, and as a result, the EU member-states seem to accept the rigid principles of the TEP and reconsider the existing disputes regarding having one voice.

4.3. The ECT and its Non-Ratification by Russia

As it was previously outlined in Chapter 3.3 Brussels and Moscow started to work together on the institutional base of the energy dialogue since the collapse of the Soviet Union. And the very first document, after the European Energy Charter (EEC), that was adopted between "new" Russia and Brussels was the Energy Charter Treaty (ECT). An interesting fact is that Russia was very active in the negotiations of both the

[303] "Otnyat` u "Gazproma" Truboprovodi", **Interfax**, 9 April 2013, http://www.interfax.ru/300387 business/ [22.05. 2015].
[304] Catherine Locatelli, "EU Gas Liberalization as a Driver of Gazprom`s Strategies?", **IFRI,** February 2008, http://www.ifri.org/sites/default/files/atoms/files/Ifri_RNV_locatelli_gazprom_ANG_janv2007.pdf [17.05.2015].

EEC and the ECT throughout the early 1990s, and even signed the ECT in 1994, however never ratified it. Therefore, this sub-section intends to provide brief information about the ECT in order to understand the reasons that lead to Russia`s non-ratification of the ECT.

4.3.1. The Energy Charter Treaty: A Summary

Established as a framework for international cooperation, ECT`s principal aim is that it "establishes a legal framework in order to promote long-term cooperation in the energy field, based on complementarities and mutual benefits, in accordance with the objectives and principles of the Charter"[305]. The main ideas of the ECT are related to "protection of investment, trade in energy materials and products, transit and dispute settlement." Under the investment security clause it is assumed that contracting parties of the ECT should provide foreign investors with favorable and transparent terms, and moreover, not discriminate against them and provide them with the same treatment that is given to domestic investors. The "Trade in energy materials and products" clause envisages that signatories of the ECT are subject to the GATT[306] or WTO rules even if signatories are not participants of the above-mentioned agreements. The most contentious clause[307] is a transit issue. The ECT says that every signatory is required to[308]:

> "…facilitate the transit of energy materials and products in line with the principle of free transit without distinction made on the origin, destination or ownership of such energy materials or products, nor discriminatory pricing on the basis of these distinctions, and without imposing delays, restrictions or unreasonable taxation."

In other words, according to the clause, every ECT signatory may allow free access to its transmission network to a third party without any discriminating requirements[309]. The clause also emphasizes the fact that energy products and materials' shipment are not the subject to any disputes regarding transit arrangement, that is to say,

[305] Amelia Hadfield, Adnan Amkhan-Bayno, op.cit.
[306] General Agreement on Tariffs and Trade.
[307] It is one of the significant concerns of Russia.
[308] European Union, Summaries of EU Legislation, http://europa.eu/legislation_summaries/energy/external_dimension_enlargement/l27028_en.htm [23.05. 2015].
[309] But this not a mandatory condition.

the amount of transported energy materials and products cannot be reduced or disrupted due to any transit disputes. The last important provision is related to the "dispute settlement". According to the clause, the ECT[310]:

> "…provides for strict procedures for settling disputes either between countries or between private investors and the state in which the investment has been made. In the case of a dispute between an investor and a country, the investor may decide to submit the dispute to international arbitration. In the case of a dispute between countries, and if diplomacy is unsuccessful, an ad hoc arbitration tribunal may be set up. The settlement solutions provided by these mechanisms are binding."

The Treaty highlights other issues regarding sovereignty, transparency, taxes and ecology too. However, since these provisions are considered less controversial (from the Russian perspective) than the above-mentioned, their details will not be presented.

4.3.2. The Russian Federation and the ECT: Disagreements

The ECT was signed in 1994 and put into effect in 1998. Moscow had signed the Treaty, but on a "temporary basis", i.e. by accepting the provisional application of the ECT pending ratification. But as we have witnessed the ECT was never ratified by Russia. The reason of the non-ratification lies in several provisions, which, according to Russia, could impede national interests of Russia. From the Russian perspective there is an abundance of "controversial issues" that prevent Russia to ratify the Treaty. In this passage only the most controversial issues will be considered such as disputes concerning free access to Russian energy infrastructure and transmission networks, narrowness of the Treaty and politicization of the ECT`s ratification.

In the early stages of the discussions regarding the ratification of the Treaty, Russia was concerned only about two **transit issues**: concerning non-discrimination of energy products, transportation of materials from external (in our case, non-Russian) resources and transportation issues during any gas disputes. In 2001, it was decided to adopt a special Protocol to the Energy Charter, so the aforementioned problems could be solved. In response, the EU proposed a project –the "integration amendment of EU" or "provision about Regional Economic Integration Organization (REIO) –which alleges that border crossing of the EU member-states` territory should not be accepted as a

[310] Ibid.

transit. In other words, the territory of EU member-states is seen by Europeans as a single space, therefore border-crossing of EU member-states` is not a transfer. This claim by the EU, in the words of Russian expert Konoplyak, could threaten transit of Russian gas during its multiple crossing through the territory of the EU, since it could result in contractual mismatch[311].

Alongside these concerns, however, there is a plenitude of misunderstandings that allegedly bar the ratification of the ECT by Russia. One of the most frequent is an opinion that Russia will be obliged to grant a free access to its infrastructure and pipelines to third parties whenever it has available capacity[312]. According to this view, in the event that Europe is successful in realization of its diversification projects in Central Asia, i.e. conclude gas contracts to supply Caspian gas directly to Europe, Russia allegedly has to allow Caspian gas to be transported via Russian gas pipelines at lower tariffs. In this scenario, it is projected that the dominant role of Russia as a main gas supplier in the CIS and EU will be reduced. However, as it was outlined in the previous sub-chapter, the transit clause does not claim mandatory free access to a third party[313].

Another "myth-commitment" of the ECT, according to Konoplyanik, relates to the equality of transit tariffs. This means that Russia is supposed to permit EU-destined Central-Asian gas to travel through its gas pipelines at subsidized domestic transit tariffs. As the author states, the transit provision of the ECT might envisage such kinds of subsidized tariffs, though, it is again not an obligatory clause[314].

However, regardless of whether or not the above-mentioned clauses are misunderstood, it is generally accepted that Russia has never ratified the Treaty due to the transit provisions which want "contracting parties to facilitate transit on a non-discriminatory basis, consistent with the principle of freedom of transit enshrined in the WTO/GATT"[315]. However, Russia is not ready to allow its partners access to its energy

[311] A.Konoplyanik, **Rossiya I Energeticheskaya Khartiya** (Moscow: Gubkin Russian State University of Oil and Gas, 2010), 35, 37-38, http://www.konoplyanik.ru/ru/publications/741m.pdf [23.05. 2015].
[312] Ibid., 39; Amelia Hadfield, Adnan Amkhan-Bayno, op,cit, 7.
[313] A.Konoplyanik, op.cit, 39-41.
[314] Ibid. 41-44; Amelia Hadfield, Adnan Amkhan-Bayno, op,cit, 7.
[315] Energy Charter, http://www.encharter.org/index.php?id=37 [20.05. 2015].

transport infrastructure. Moreover, from the Russian perspective, the Charter is a document which meets the needs of energy importers, not exporters.

Another hurdle that makes Russia to desist from ratifying the Treaty is that the ECT is too limited and does not "provide for global governance." According to the Russian side, Moscow is excited to invest abroad –in Venezuela, Libya etc; however, the ECT does not consider rights of signatories who are interested in a global approach[316].

The last but not least, politicization of the issue is another factor that prevents Russia from fully complying with the ECT provisions. From the Russian perspective, the Treaty is a major instrument of the EU`s energy policy, which was created in order to integrate Russia into "the EU-dominated" rules and institutes. Moreover, it is believed that Brussels forced Moscow to accept the ECT as it is, regardless of the Russian's concerns. Therefore, any European appeal to Russia to ratify the Energy Charter and Transit Protocol is accepted as political pressure, which, inter alia, makes Russia to oppose from ratifying the Treaty even more[317]. In addition, as was outlined before, the EU is seeking to ensure the security of supply. Therefore it accepts the Treaty as a great tool in guaranteeing competition on the market, whereas Russia attempts to ensure the security of demand and security of transit. As Andrei Belyi states, due to these differences, the parties could not agree on a transit regime, as a consequence, Russia has not ratified the Treaty[318].

In addition to the above said Russian views regarding the EU ignoring its concerns, it is worth pointing out that Russia of the 1990s, which had signed the ECT, is not the Russia of the 21st century. From the Russian perspective, Russia in the early 1990s is remembered as a state, which due to its economic and political weaknesses had to follow a path mapped out by the West and sign legal documents (read the ECT) prepared by the West. It is generally accepted that those documents to some extent are discriminative against Russia; therefore one could say that the ECT is not still ratified by

[316] Andrei Belyi, "Meeting Summary: Russia`s Position on the Energy Charter", **Chatham House**, 27 April 2012, http://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Russia%20and%20Eurasia/270412summary.pdf [23.05. 2015].
[317] Ibid.
[318] Ibid.

Russia, since it is believed that the Treaty does not meet and ignores the concerns of 21nd century Russia.

4.3.3. Why Russia Withdrew from the ECT in 2009

In 2009 Russia had declared that it would withdraw from its provisional application of the Treaty. It is quite clear from the above passage that Russia had "sufficient reasons" not to ratify the ECT. However, Russia decided to withdraw from the Treaty only in 2009, why?

As outlined earlier, one of the main provisions of the ECT relates to the dispute settlement. This clause claims that "transit of energy materials and products of energy materials and products may not be interrupted or reduced in the case of a dispute on transit arrangements before the relevant dispute settlement procedures have been followed"[319]. However, as we have seen from Chapter 3, despite the existence of the ECT, there have been numerous examples of "gas wars" that lead to serious gas disruptions of EU-destined natural gas from Russia. During one of those crises, the 2006 Ukraine-Russia gas crisis, most of the energy experts envisaged that the EU and the ECT would have been actively engaged in solving the problem and would have done everything required (for example, urge the parties for greater transparency of deals and gas flows) to prevent a repetition of the crisis. However, from the 2009 "gas war" we have seen that the energy experts miscalculated, and the ECT`s dispute settlement clause could not prevent gas interruptions. As demonstrated in earlier chapters, the "perpetrator" that caused the gas interruptions was not identified, since both parties accused each other in intended gas shutoffs. Ukraine was blaming Russia in using its "blue gold" as an energy weapon, whereas Russia accused Ukraine of theft. However, regardless of who is guilty, the gas debate with ensuing gas interruptions proved that the transit clause was not followed, despite the fact that both parties are signatories of the

[319] European Union, http://europa.eu/legislation_summaries/energy/external_dimension_enlargement/l27028_en.htm [23.05. 2015].

ECT —which obliges them not to reduce or interrupt transit of energy materials and products even during disputes on transit arrangements[320].

Following the 2009 gas crisis, Putin, "disappointed" in the ECT, said that the Treaty "failed to become a working instrument able to regulate emerging problems and that a new international legal framework for energy security was necessary"[321]. Therefore, it does not seem unreasonable to suggest that the 2009 Ukraine-Russia gas crisis and the ECT`s failure to prevent the crisis pushed Russia to withdraw from the ECT.

In addition, as some experts say, the Russia's withdrawal from the ECT is correlated with the YUKOS[322] arbitration claims[323]. Following the bankruptcy of YUKOS, its major shareholders commenced arbitration proceedings (in accordance with "dispute settlement" clause of the ECT, see previous pages) against Russia, blaming Moscow in expropriation of their assets (investments) in YUKOS. As material damage, the claimants required Russia to pay them USD 33.1 billion. However, the main question was whether Russia could have been a subject to an arbitration claim, if it had only applied the ECT on a temporary basis and had not ratified it yet. In 2009 the Arbitral Tribunal held that Russia was indeed subject of the ECT even if it had accepted the provisional application of it, as the provisional application is "as robust a legal

[320] Nataliya Esakova, op.cit, 245.

[321] Ibid., 246; In 2010 "a new international legal framework for energy security" –a Draft Convention on Energy Security" was proposed by the Kremlin, however, Brussels did not accept the document. See Andrei Belyi, op.cit.

[322] The company was a result of privatization that was made by the Russian Federation in the early 1990s (see Chapter 3.1.1.). The company`s largest extraction complex Yuganskneftegaz was very significant, since it produced most of Russia`s oil in 1990s. Since its creation the company aimed for modernization of the old energy infrastructure in Russia and hired international executives in order to transform the "old school" company to an internationally respected and successful company. Later, the stated objective of the company was achieved: YUKOS started to produce over a million of barrels a day and its market capitalization increased from USD 320 million in 1999 to USD 36 billion in 2004. The main shareholders of YUKOS were Hulley Enterprises Ltd (Cyprus), Yukos Universal Ltd (Isle of Man) and Veteran Petroleum Ltd (Cyprus). Following the YUKOS success, however, the Russian state (after the arrival of Putin) commenced the "state consolidation of resources" (see Stegen`s energy weapon model in Chapter 3.1.1.) and expropriation process toward the company. The seizure began from taxes, as a result of which YUKOS had to appeal against the Tax Assessment. However, YUKOS`s efforts were futile, and the company, due to alleged huge debts to the state was bankrupted; See the Yukos Library, http://www.theyukoslibrary.com/en/the-yukos-affair/ [24.05. 2015]; Amelia Hadfield, Adnan Amkhan-Bayno, op.cit, 7-9.

[323] Amelia Hadfield, Adnan Amkhan-Bayno, op.cit, 7-9.

concept as ratification." Thus, it could be stated that Russia was successfully litigated internationally for the breach of the ECT obligations[324].

Therefore, it is suggested that Russia decided to withdraw from it provisional application of the ECT in order to escape its obligations. However, as some experts claim, a withdrawal from the ECT is not a panacea for Russia, since urgent withdrawal and termination of provisional application does not solve the problem, due to the fact that "all investments by investors from other ECT contracting parties are currently covered for the next 20 years under Article 45 (3) (b) ECT, from the time of notification of withdrawal: 2029." Therefore, it seems that Russia reacted unwisely by rejecting the ECT at least for the time being, though, as some experts claim, Moscow even after rejecting the ECT, i.e. without having to comply with the ECT obligations, still has the authority to steer the negotiations[325].

From the YUKOS affair; we have seen that the ECT and "Third Energy Package", or European liberalization of energy market as a whole is a very politicized and controversial issue. Since Moscow considers the ECT as "an instrument based on extreme capitalist liberal principles, effectively sponsored by the EU, that bestows private entities and companies alike broad protection in a sector that is politically very sensitive and increasingly dominated by national (public) power"[326]. Therefore, Russia, in order not to allow the "extreme capitalist liberalist principles" to manage the Russian "market economy", preferred to save state monopoly in the energy sector. This Russian attitude, however, is not surprising. The development of Russia`s economy is based on its energy exports, since they are a crucial source of income.

4.4. The 2014 Ukrainian Crisis and Future Expectations

Before analyzing the current 2014 Ukrainian crisis and its possible repercussions on the existing EU-Russia energy (gas) dialogue or even the relations between Moscow and Brussels, as a whole, it would be good to present a summary of the main findings of the previous chapters in review.

[324] Ibid.
[325] Ibid.
[326] Ibid., 9.

As we have seen from Chapter 2, the Europe-Russia gas trade, being commenced during the Cold War, was of mutual benefit. Therefore, it paved the way for an energy interdependency regime, which has been successfully functioning (although with several failing during the post-Cold War Russia-transit countries gas crises) since the pioneer gas contract had been conducted between the Soviet Union and representative of the so-called (to use the Cold War terminology) Western Bloc, Austria. This pioneer contract, in accordance with which red gas, for the first time, crossed the borders of the Iron Curtain, served as an example for replication in other countries of the Western Bloc. Right after the first successful red gas flow, other European countries commenced their negotiations with the Kremlin and started to export red gas: West Germany, Italy and France, to name but a few. Based on the principle of the gas-for-pipe countertrade deal, the Cold War energy dialogue was mutually favorable. At that time the Kremlin, by exporting its gas to European countries, was able to increase its hard currency revenue, enhance its international prestige and influence in an international arena, and integrate with the fraternal socialist countries and therefore increase their economic and political dependency on the Soviet Union. By collaborating with the enemy the Western Bloc, in turn, diversified its energy imports from Middle East exporters, which after the first oil crises were recognized as unreliable suppliers, strengthened overall relations with the USSR (especially within Willy Brandt`s *Ostpolitik* strategy), solved its environmental problems, etc[327]. Nurşin Ateşoğlu Güney and Vişne Korkmaz in their article entitled "The Energy Interdependence Model between Russia and Europe: An Evaluation of Expectations for Change" allege that the above-mentioned first and second advantages of the Cold War energy dialogue actually became the basis for strengthening trust between the Soviet Union and Western Europe and served as a glue or even a stimulus for continuing the energy interdependence after the collapse of the Soviet Union and end of the Cold War respectively[328]. In other words, the fact that following the Middle East crisis most of the existing energy suppliers from the Middle East revealed to be unreliable energy importers accelerated West European intentions to collaborate with the

[327] For more details see Chapter 2 of the thesis.
[328] Nurşin A.Güney, Vişne Korkmaz, "The Energy Interdependence Model between Russia and Europe: An Evaluation of Expectations for Change", **Perceptions: Journal of International Affairs,** Vol. 19, No.3 (2014): 43-44.

Soviet Union, as a result of which Europeans "had fallen in love with red gas"[329]. The Soviet Union seized the moment and attempted to show itself as a reliable supplier and to that end met its contractual obligations even at its peril[330].

Concerning the second factor which also fortified the Soviet-West Europe energy interdependence —the strengthening of overall relations with the Kremlin —, this policy was applied under a motto "Wandel durch Annäherung" (change by rapprochement) and pursued to spread the Western European norms to the Soviet Union and therefore deepen the interdependence, and mitigate antagonistic atmosphere of the Cold War[331]. Although this policy was generally promoted by Western Germany, there is no doubt that Germany`s such rapprochement-pursued policy had a significant impact on improving and tightening the energy links between the Western and Eastern Blocs, which inter alia, were based on mutual benefit. All in all, these two significant factors served as the basis for continuation of the Soviet-Europe energy dialogue after the fall of the Berlin Wall.

With the end of the bipolar confrontation, as we have seen from Chapter 3, these smooth relations between the parties underwent considerable changes. The collapse of the Soviet Union caused three effects that had a considerable impact on post-Cold War energy dialogue between "new and united Europe"[332] and "new and independent" Russia. Firstly, as outlined, the dissolution of the Eastern Bloc paved the way for an emergence of new transit states, which as we have seen, after a short time became a reason for uncertainty and turbulence in the EU-Russia gas relations. Secondly, the collapse of the USSR itself had resulted in the emergence of 15 independent states, among which most significant are Ukraine and Belarus, since practically all en route to Europe Russian gas travel through their territory. Finally, the break-up of the USSR with ensuing economic hardship triggered a rapid decrease in gas consumption in Russia and its Near Abroad. This fact, nevertheless, impacted the Russian economy positively, since a decrease in gas consumption gave away to export surplus to European countries - allowing Moscow to expand its role as the world`s significant supplier of gas and

[329] See Chapter 2.3.2 of the thesis.
[330] After Soviet gas exports to West Europe commenced, Ukraine, Belarus, Lithuania, etc. often started to suffer from insufficient and irregular supply of Soviet natural gas, since their "gas share" was redirected to West Europe. See Chapter 2.3; Nurşin A.Güney, Vişne Korkmaz, op.cit, 43.
[331] Nurşin A.Güney, Vişne Korkmaz, op.cit, 43.
[332] Europe was no more divided into the Eastern and Western Blocs.

increase its hard currency revenues[333]. Based only on these aftereffects it was obvious that post-Cold War energy dialogue between Europe and Russia would be following a different scenario, as it did during the Cold War.

First and foremost, the emergence of the transit countries had indeed triggered significant problems in EU-Russia gas relations. As I have outlined in Chapter 3, following the fall of the Soviet Union, Europe had faced with "other" Russia –a Russia which utilizes its energy weapon as an important instrument of foreign policy. The Kremlin, represented by the state-owned Gazprom, before showing its energy weapon to Europe and the Near Abroad, however, "had prepared itself". It consolidated energy resources in state hands and acquired control over transit routes, or, in other words, took definite steps in order to dominate its downstream and upstream activities. Meanwhile, "new born" transit countries, on the one hand, incapable of tackling the post-Soviet economic hardship and paying the gas bills to Russia amassed huge gas debts to Gazprom; on the other hand, being aware of their peculiar position in the EU-Russia energy dialogue, they started to demand higher transit fees from Russia for using their territory and gas storages (Ukraine) to transport EU-destined Russian gas supplies following Russia's declaration about an increase in gas prices. As one might expect, Russia did not agree with such development of events, and as a result the parties (Russia and transit countries) failed to find a common ground, and Russia interrupted its gas supplies to Ukraine (2006, 2009 and 2014) and Belarus (2010). These gas disruptions, as most energy experts argue, were the first important signals of "other" Russia –Petro Kremlin, which were the result of Russia`s want of regaining its status as a superpower[334]. According to Nurşin Ateşoğlu Güney and Vişne Korkmaz, Russia`s behaviour towards its Near Abroad, i.e. utilization of the energy weapon, could be explained in the following way:[335]

> "The energy weapon was seen by the Kremlin as a compensation for the change of in the distribution of power in the overall structure of politics at Russia`s expence. The Kremlin tried to use linkage strategy between the energy issue and the military/political issue not to lose control over the former Soviet states."

[333] See Chapter 3.1 of the thesis.
[334] For details see Chapter 3 of the thesis.
[335] Nurşin A.Güney, Vişne Korkmaz, op.cit, 48.

In other words, Moscow following the color revolutions in Ukraine and Georgia and Western alleged interference into its "historical sphere of influence", decided to punish the "unruly countries" which were willing to *get out of Russia`s radar,* by cutting off gas supplies to them[336].

With respect to Europe, until the 2006 and 2009 Ukrainian crises, it mostly preferred to turn a blind eye to Russia`s policy towards the transit countries, owing to the fact that Brussels had a fear that a Russian-transit country crisis could become a Russian-European crisis[337]. In addition, Europe attempted to carry out a rapprochement policy towards the Kremlin, even if sometimes this policy was conducted "at the expense of other post-Soviet European countries"[338]. In the words of Ulrich Speck, 'this has been justified by the fact that in pre-crises times Brussels implemented its policy towards Moscow under a motto "Russia first"', that is to say, permitted Russia to construct "dependency between the producer and transit countries instead of maintaining interdependency"[339]. By way of illustration, consider the policy of the former Chancellor of Germany Gerhard Schröder, which could be called as a logical continuation of Willy Brandt`s Ostpolitik, though with a small correction: Schröder`s policy was conducted under a slogan "Wandel durch Handel" (change by trade), i.e. Berlin tried to integrate Russia into the EU liberalized market[340]. To that end, Brussels initiated the establishment of the Energy Dialogue as major institute of EU-Russia gas relations, adopted the so-called "Third Package", and tried to force Russia to ratify the ECT and so on. However, as we have seen from the previous pages, none of the above-stated initiatives were fully implemented by Russia[341].

Moreover, in the wake of the 2006, 2009 and ongoing 2014-2015 crises in Ukraine, Brussels seemed to understand the implications of the "Russia first" policy on European energy security. The Russian aggression in eastern Ukraine and Crimea acted as a cold shower to the EU member-states, therefore from now on, the EU`s Russia-

[336] For details see Chapter 3 of the thesis.
[337] Nurşin A.Güney, Vişne Korkmaz, op.cit, 49.
[338] Nurşin A.Güney, "The EU-Russia Relations: The Limits of Mutual (Inter) dependency", **Bilgesam Analysis**, No.1175 (2014): 2.
[339] Nurşin A.Güney, Vişne Korkmaz, op.cit, 49.
[340] Ibid.
[341] For details see Chapter 3.3 and 4 of the thesis.

oriented “Russia first” policy is gradually changing to a “Eastern Europe first” policy, which is focused on protecting the rights of EU member-states first, not Russia[342].

Furthermore, the occurrence of the transit crises with ensuing gas disruptions to Europe (in 2006- 4 days, 2009- 14 days) showed the Europeans how vulnerable their gas dialogue with Russia and how dangerous the dependence on the single supplier could be[343]. This, in turn, triggered Brussels to re-think their dependence on Russian gas imports and adopt projects aiming for diversification of the EU energy mix. A case in point is the “Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy”, where “diversification” is mentioned as one of the top priorities of the EU. This document, alongside other EU strategies, aims at creating a coherent and united energy policy for the EU[344].

Generally speaking, all of the EU efforts to ensure its energy security started after the first cutoffs of Russian gas. However, the ongoing Ukrainian crisis, though it is also a continuation of the Ukraine-Russia chronic gas disputes, has been a turning point in the EU- Russia gas dialogue, since, in contrast to the former crises, it turned from the gas disputes to the political crisis with the use of military force. Therefore, it does not seem unreasonable to suggest that the 2014 Ukraine crisis could be the start of fundamental reorientation in the energy policies of both parties (the newly developing Eastern Europe First policy is an obvious example).

On that basis, in this chapter a possible implication of the ongoing crisis in Ukraine on the EU-Russia energy dialogue, the parties` “further steps” and pathways will be considered. In the wake of the 2014 Ukrainian crisis, the EU, bearing in mind that unanimity among the member-states towards Gazprom is one of the key sources of politicization in the EU-Russia gas relations and obstacles to ensuring energy security of Europe[345], started re-emphasizing the idea of establishing a coherent energy policy. Therefore, European efforts on creating the so-called “Energy Union” will be considered first in the chapter. Secondly, as Nurşin A.Güney and Vişne Korkmaz state, the third and

[342] Nurşin A.Güney, Vişne Korkmaz, op.cit, 50; Nurşin A.Güney, “The EU-Russia Relations”, 2.
[343] Most of the countries in the south-east of Europe and the Baltic states are solely dependent on Russian “blue gold”. For details see Chapter 3.2.
[344] See Chapter 3.3.
[345] For details see previous pages.

ongoing Ukrainian crisis triggered "not regime change but re-emphasizing means of diversification routes and indigenous resources"[346], therefore, diversification of routes, suppliers and sources as a basic component of guaranteeing European energy security will be analyzed. By considering the first and second options, it is predicted to evaluate chances of the Europeans to overcome their hydrocarbon addiction to the Russian "blue gold." The worst-case scenario, involving Brussel's inability to realize the afore-mentioned plans to reduce their dependency on the single supplier, will be assumed in the last subsection of the chapter.

4.4.1. "Energy Union"

It is often argued that the 2006, 2009 and latest crisis in Ukraine served as a wake-up call for the European Union to review its energy policy towards its major gas supplier. These gas disputes with ensuing gas disruptions and an annexation of the territory (Crimea) triggered the EU member-states to deepen its energy policy and develop a common energy strategy in the face of the Petro Kremlin using its "energy weapon." As mentioned in the previous pages, the idea of common energy for Europe is not new: it was highlighted within the 2006 Green Paper, and reinforced in the Lisbon Treaty in 2007. In addition, in 2007 the European Commission adopted the TEP[347], the main aim of which was to form a competitive and unified energy market in Europe, hence to facilitate the process of consolidating European solidarity. However, as one might expect this subject received the greatest coverage after the 2014 Ukraine crisis[348] had emerged.

[346] Nurşin A.Güney, Vişne Korkmaz, op.cit, 50.
[347] See Chapter 4.2 of the thesis.
[348] The current political and energy crisis in Ukraine actually dates back to the 2004/2005 Orange Revolution -a political crisis during which pro-Russian and pro-Western groups competed for political power in Ukraine. As a result of this "revolution", pro-Western Viktor Yushchenko became the president of Ukraine. In 2010, however, the "newly-arrived" president was replaced by pro-Russian Viktor Yanukovich. In 2013 Yanukovich`s announcement to collaborate closely with Moscow instead of Brussels triggered huge anti-government protests in Kiev and later throughout the whole of Ukraine. In December 2013, Vladimir Putin in order to calm down the situation announced that Moscow would buy USD 15 billion of Ukrainian debt and make a discount in price of "blue gold" for Ukraine. However, tensions continued to rise and protesters started to demand Yankukovich`s removal and freedom of the former prime minister Yuliya Timoshenko from prison, where she was jailed for abuse of power in 2011. Unable to control the state, Yanukovich left his post as the President of Ukraine, and an interim government was formed in Ukraine. The newly appointed interim President Olexander Turchynov and his cabinet offered

In response to the Russian annexation of Crimea, one of the representatives of the "New Cold Warriors"—Poland, repeated its previous proposal regarding the creation of the "Energy NATO" though with a correction: this time, the prime minister of Poland, Donald Tusk, offered an alternative to the "Energy NATO" — "Energy Union" (EnU). The estimated EnU`s main aim, according to Donald Tusk, is to "break up the Russian gas monopoly and restore free market competition." To that end, the author alleged that the following six principles should be realized[349]:

- First, it is necessary to establish a single European institution which will jointly purchase gas to all 28 EU member states;
- Second, it is necessary to create a solidarity mechanism, the main responsibility of which would be to assist the energy-neediest EU members in case of possible gas disruptions;
- Third, the EnU should co-finance the construction of required energy infrastructures like storage capacity and gas links in the countries that are heavily dependent on Russian gas imports[350];

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to ban Russian as an official second language in Ukraine. This decision triggered backlash in Russian-speaking regions of Ukraine; since then the anti-government demonstrations started to be perceived as nationalistic. Pro-Russian rebels seized regional parliament in Crimea and started to call for a secession referendum of the Crimean Peninsula. Moreover, the Russian government decided to send military support to Crimea, arguing that it should protect the discriminated Russian-speaking population in Ukraine. Later on, as a result of the above referendum, about 97% of the population of Crimea allegedly supported the idea of joining the Russian Federation. Since March 2014, the process of absorbing Crimea into Russia has started. EU and US governments condemning Russian policy in Crimea started to impose sanctions on Russian individuals and businessmen; later on these restrictions were expanded to Russia`s state finances, energy and arm sectors. On April 2014, pro-Russian rebels occupied eastern parts of Ukraine such as Lugansk, Donetsk and Kharkiv, demanding a referendum on independence. On May 2014, the former two regions announced their independence from Ukraine. All in all, Russian aggressive policy in eastern Ukraine and annexation of Crimea set in motion a freeze in relations between Russian and the West, including gas relations. "Timeline: Key Events in Ukraine`s Ongoing Crisis", **The Washington Post,** 12 May 2014, https://www.washingtonpost.com/world/europe/timeline-key-events-in-ukraines-ongoing-crisis/2014/05/07/a15b84e6-d604-11e3-8a78-8fe50322a72c_story.html [14.07.2015]; "Timeline: Ukraine`s Political Crisis", **Al Jazeera**, 20 September 2014, http://www.aljazeera.com/news/europe/2014/03/timeline-ukraine-political-crisis-201431143722854652.html [14.07.2015]; "Ukraine Crisis: Timeline", **BBC News**, 13 November 2014, http://www.bbc.com/news/world-middle-east-26248275 [14.07.2015].

[349] Donald Tusk, "A United Europe Can End Russia`s Energy Stranglehold", **Financial Times**, 21 April 2014, http://www.ft.com/intl/cms/s/0/91508464-c661-11e3-ba0e-00144feabdc0.html#axzz3c52sEGs9 [6.06.2015]; Behrooz Abdolvand, Jacopo Maria Pepe, "Die Ukraine-Krise und die Energiesicherheit Europas: Kann Iran Russische Gaslieferungen ergänzen?" **DGAPanalyse**, No.14 (2014): 4, https://dgap.org/de/article/getFullPDF/25743 [6.06.2015].

[350] At least 10 EU members are fully reliant on Russian hydrocarbons. See Donald Tusk, op.cit.

- Fourth, the EnU has to "make full use of the fossil fuels available", for instance, coal and shale gas;
- Fifth, it is necessary to collaborate with energy suppliers outside Europe;
- And finally, the EU`s neighborhood energy policy (precisely, towards the eastern neighbors) should be improved.

As we have seen, all these efforts are aimed at ensuring of an overall European security of gas supply and reducing European hydrocarbon dependence on Russia. Although it does not seem unreasonable to suggest that the Polish-version of the EnU, also had signs of national interests of Warsaw: firstly, the Tusk`s EnU had left the impression that Poland attempts to consolidate and integrate the EU members-states through creating an image of a common enemy —Russia; secondly, Poland urging the use of fully available fossil fuels like shale gas and coal is not a coincidence, since Warsaw is known as the biggest hard coal producer[351] and the most advanced market for shale gas in Europe[352].

Nevertheless, the idea of the EnU from Poland was generally well received in Europe, which is not surprising in the wake of the enduring crisis in eastern Ukraine and Crimea. At the beginning of 2015, the EC presented the Energy Union strategy, which aims at establishing a "resilient Energy Union with a forward-looking climate change policy." As we have seen, the initial Polish version of the Energy Union has been widened: the EC-backed EnU is projected not only to guarantee the security of supply, but also mitigate energy climate change. All in all, the proposed strategy is based on five pillars: energy security, solidarity and trust among the EU member-states; a fully unified EU energy market; energy efficiency; reduction of hydrocarbon domination (decarbonization) in the EU energy mix; and lastly, research, innovation and competitiveness[353]. Furthermore, the most important aspect that the projected EnU will emphasize is energy security of those EU states which have asymmetric dependence on

[351] European Association for Coal and Lignite, http://www.euracoal.be/pages/layout1sp.php?idpage=76 [6.06.2015].
[352] Ralf Dickel et al., op.cit.
[353] European Commission, "A Framework of Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy" (COM (2015) 80; Date 25 February 2015), http://ec.europa.eu/priorities/energy-union/docs/energyunion_en.pdf [5.06.2015].

Russia such as South-Eastern Europe and the Baltic states. Due to the fact that the choice of energy source and supplier has always been an issue of national competence of each member it is argued that the medium-sized and small-sized EU states like Poland or Bulgaria have less bargaining power towards Russia —their dominant gas supplier. As a consequence, conducted supply deals with Gazprom were sometimes uneconomical[354] and in favor of Gazprom. In order to remedy that situation it is planned that energy will be purchased via centralized procurement, so that energy prices will be competitive and the EU`s purchasing and bargaining power vis-à-vis Russia will be increased[355]. Also, it is projected that the gas and electricity markets of all the EU states will be connected with each other through interconnectors, so that the internal energy market will be able to work properly and supply energy to the EU energy-neediest and less integrated members (South-Eastern Europe, the Baltic and Balkan states[356]) even in the case of an energy crisis or sudden energy disruption[357]. Alongside the above-mentioned "duties", within the EnU the EU plans to improve regional cooperation with neighbors when developing their energy policies[358]. That means that the most significant transit countries` (Ukraine and Belarus) energy policies might be also correlated with the EnU`s estimated targets in order to lessen Russia`s ability to use its hydrocarbons as "weapons" toward those countries.

Furthermore, within the EnU the EU expects to increase its energy efficiency and consumption of renewables, which if implemented will result in a decrease of energy demand, i.e. will reduce European gas import dependency on Russia[359]. All in all, these

[354] It is argued that most of the representatives of South-Eastern and Baltic regions pay highest prices for imported Russian gas. V. Harrison Jacobs, "These 4 Charts Illustrate Russia`s Gas Leverage over Europe", **Business Insider**, 2 February 2015, http://www.businessinsider.com/russias-gas-leverage-over-europe-2015-2 [6.06.2015].
[355] Christoph Hasselbach, "EU-Kommission Will EnergieUnion", **Deutsche Welle**, 25 February 2015, http://www.dw.de/eu-kommission-will-energieunion/a-18278801 [5.06.2015].
[356] Most of the Balkan states are current candidates for EU accession. For details V. European Commission, http://ec.europa.eu/economy_finance/international/non_eu/candidate/index_en.htm [6.06.2015].
[357] "A Framework of Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy".
[358] Ibid.
[359] More than 30% of the EU gas demand is met by Russia in 2013.V. European Commission, "European Energy Security Strategy" (SWD (2014) 330; Date 28 May 2014), http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0330&from=EN [7.06.2015].

EU efforts once again demonstrate that the EU has started to apply its newly developed "Eastern Europe First" policy yet not in practice, but on paper.

As we have seen, after the emergence of the third Ukrainian crisis, the Europeans sped up their previous efforts at reducing some EU member-states` high dependence on Russian "blue gold". However, as some IR analysts claim, the Energy Union`s declared ambitious objectives could only be realized if 28 members of the EU were able to generate real political will and act as a unity[360]. Only in that case a unified energy market and "more assertive European energy diplomacy"[361] could be reached in the EU; hence the Europeans would be able to reduce their reliance on Russia — an energy supplier who tends to use its energy resources as an effective tool of foreign policy.

To sum up, the emergence of the 2014 Ukrainian crisis encouraged the Europeans to accelerate their efforts concerning ways of ensuring their energy security and reducing the EU import dependency on Russia. As a result, different measures have been undertaken, but the projected Energy Union strategy is going to become one of the most ambitious projects among them. Therefore, it could be argued that should the proposed "to-do list" of the Energy Union strategy be realized, Russia`s leverage over some of the energy-neediest members of the EU will be significantly reduced, hence the European energy security would be secured. However, as one might expect, implementation of the Energy Union strategy's five principles —hence the EU`s significant reduction of Russian natural gas, requires a huge amount of time and effort. Therefore, it does not unreasonable to suggest that the EU might speak with one voice only in the foreseeable future.

4.4.2. Diversification of Supply: Energy Sources, Routes and Suppliers

The European Union has been emphasizing the fact that diversification of gas supply and breaking dependence on a single gas exporter is one of the key ways of safeguarding European security of gas supply since the beginning of the 2000s. In view of current events in Ukraine, however, the diversification issue has started to receive a

[360] Nurşin A.Güney, Vişne Korkmaz, op.cit, 51.
[361] Ibid.; Nurşin A.Güney, "Where Does the EU Stand in Energy Dependence on Russia After the Ukrainian Crisis", **Perceptions: Journal of International Affairs,** Vol. 19, No.3 (2014): 19.

particular coverage and actually is one of the principal duties in Brussels' have-to-do list for the time being. Taking into account almost six EU members' full dependence on Russian hydrocarbon imports[362] and the post-Ukrainian crisis EU-Russia gas relations` deterioration[363], the EU has actively taken new measures and adopted legislative framework that is strengthening the importance of diversification of EU energy supplies and overcoming gas dependence on a particular supplier (Gazprom), for example, the 2014 Energy Security strategy[364] and the 2015 Energy Union strategy. Both these documents see diversification of energy supply as a basic condition to reduce EU energy import dependence, which, inter alia, is projected to grow to 340-350 bcm by 2025-2030s[365]. Therefore, in the next section, potential energy sources, suppliers and routes that could reduce the EU`s overall reliance on Russian "blue gold" will be analyzed; thus, potentially safeguarding the energy security of the Europeans, especially of those who are heavily dependent on Gazprom as a single gas supplier (South-Eastern Europe, the Baltic states and so on).

4.4.2.1. Alternative 1: Potential US LNG Exports to Europe

In light of the aggressive policy in Russia's Near Abroad, the Europeans commenced to be actively involved in finding energy resources that could substitute the Russian "blue fuel." With the US gas boom caused by an increase in production of shale gas and, in consequence, decrease in LNG prices in the USA[366] and the outbreak of the third Ukrainian crisis, **US LNG imports** are viewed as an optimal fuel resource for Europe which is able to change the Russian energy monopoly in the south-east and Baltic regions. In addition, the EU —aware that in contrast to the "blue gold" LNG is much more "flexible fuel"[367] —stressed the importance of LNG imports as one of the key ways of overcoming European dependence on hydrocarbon-exports of Moscow[368].

[362] "European Energy Security Strategy".
[363] For details see Jonathan Stern, Simon Pirani, Katja Yafimava, op.cit.
[364] "European Energy Security Strategy".
[365] Ibid.
[366] Ralf Dickel et al., op.cit.
[367] Russian gas is predominantly transported through pipelines, while LNG is exported via cargo tankers, which could be diverted en route.
[368] Nurşin A.Güney, "Where Does the EU Stand", 26.

Therefore, practically every legal framework of the EU appeals to build a pan-European energy market by constructing required infrastructure, including LNG terminals.

The president of the European Commission, Jean-Claude Juncker, in his presentation of the Energy Union project has anticipated that the number of LNG terminals in the EU is projected to increase from 8 to 17 by 2020, as shown in Figure 6 and 7 below.

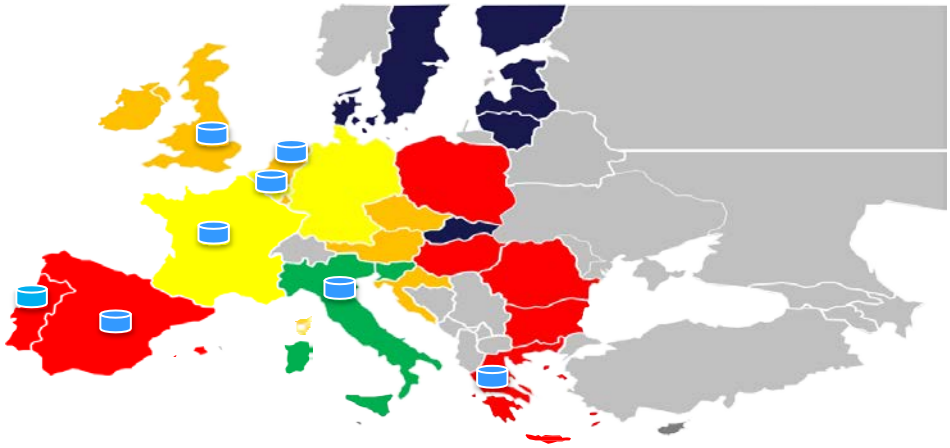

Figure 6: A Map of LNG Terminals in Europe by 2015

Jean-Claude Juncker, "Towards an Energy Union: A Resilient Energy Union with a Forward-looking Climate Change Policy", **European Council**, 19 March 2015, http://ec.europa.eu/priorities/energy-union/docs/20150319_presentation_on_the_energy_union_by_president_juncker_european_council_en.pdf [8.06.2015].

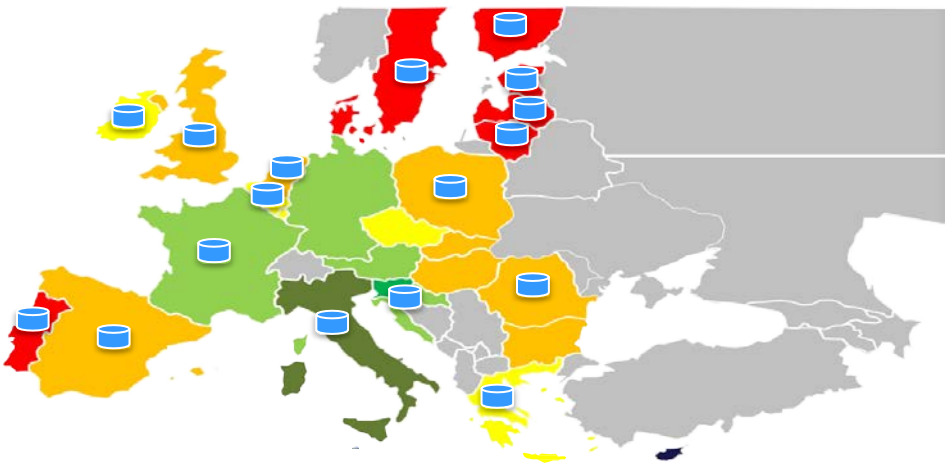

Figure 7: A Map of LNG Terminals in Europe by 2020

Jean-Claude Juncker, op.cit.

As we have seen from these figures, the Europeans are working intensively on building LNG terminals throughout the European continent. However, it is still a very big question whether US LNG imports could be a remedy for European energy concerns regarding its increasing dependency on Russian "blue fuel", since there are several uncertainties that could hinder the EU-destined US LNG imports.

First and foremost, the main question is whether Europe's strong desire to import LNG could be met by the USA and whether prices offered by Washington would be competitive on the European energy market. According to the analysts of the Oxford Institute for Energy Studies (OIES), US LNG export projects have an annual capacity of 113 bcm for the time being; however majority of it is destined to Asian customers like South Korea, China and so on[369]. According to the same experts, Europe could have imported US LNG if the disaster in Fukushima had not happened: with the US shale gas boom with ensuing cheap energy prices in the US market, a surplus of LNG could have been diverted to Europe. However, the Fukushima accident triggered a radical change in the Asian energy market and the US LNG was sold to the APR[370]. This means that Europe has to compete with Asian countries for available LNG in the aftermath of the nuclear disaster in Japan. Moreover, this competition has been constantly fueled by the growing demand of LNG and natural gas in China. Therefore, it is often argued that US LNG exports to Europe are correlated with the LNG demand in the APR. In this respect, the above-mentioned experts consider four prognosis of Chinese demand in gas and US gas production, which directly affect European plans regarding LNG imports. Within these scenarios even a worst-case scenario for the Kremlin (a low Chinese demand vs. a high US production response, hence high additional volumes of available LNG to Europe) envisages that European gas imports from Russia would make at least 120 bcm/year[371] up to 2020s[372].

[369] Nurşin A.Güney, "Where Does the EU Stand", 28.
[370] Ralf Dickel et al., op.cit.
[371] That is slightly more than volumes of gas which are delivered to Europe by Russia through the LTCs until 2020s. For details see Chapter 3.2.2 of the thesis.
[372] Ralf Dickel et al., op.cit.

It is worth pointing out that a high demand for LNG in Asia does not only create strong competition for available US LNG between Asian and European countries, but also leads to an increase in prices. Bearing in mind that LNG prices in the APR are higher than European ones[373] it is not unreasonable to suggest that the USA is not prepared to trade the lucrative Asian LNG market for the less profitable European market, at least for the time being. Europe, in turn, cannot compete with Asian prices and increase domestic energy prices[374]. Such a decision from the EU might be contrary to some of the Energy Union's objectives -"to give EU consumers - households and businesses - secure, sustainable, **competitive and affordable** [emphasis added] energy"[375].

Apart from the problems associated with the high popularity of LNG in the APR, there are also other problems that prevent Europe from becoming a significant LNG importer and reducing its gas addiction to Russian "blue fuel." As Nurşin Ateşoğlu Güney states, European countries, in particular Central-Eastern and Southeastern ones, currently cannot afford to import huge volumes of US LNG due to the economic recession caused by the 2009 financial crisis. In addition, the LTCs between European countries and Gazprom, varying from 10 to 35 years in length and obliging European companies to import more than 100 bcm/year of Russian gas[376], serve as an obstacle for Europe to switch from Russian natural gas to US LNG, even in the case of its availability in the US market. Even if Europe decided to switch, US LNG exports to Europe would not be sufficient in substituting Russian volumes of natural gas, since the USA could only afford to export 66 bcm[377] of LNG annually between 2018 and 2020 because of the above-stated reasons. Taking all of these considerations into account, therefore, it could be stated that LNG gas supplies cannot be seen as a remedy for European gas dependency.

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[373] Ibid.

[374] It is often argued that LNG is more expensive than Russian natural gas.V. Samuel R.Schubert, Johannes Pollak, Elina Brutschein, "Two Futures: EU-Russia Relations in the Context of Ukraine", **European Journal of Futures Research**, Vol.2, Issue 52 (2014): 2, 10.1007/s40309-014-0052-7 [8.06.2015].

[375] "A Framework of Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy".

[376] Chapter 3.2.2.

[377] In the words of Nurşin Ateşoğlu Güney, the volume of gas is projected to meet gas demand of the UK and Spain. Nurşin A.Güney, "Where Does the EU Stand", 28.

4.4.4.2. Alternative 2: Unconventional Gas

Another alternative source which is believed that could mitigate the existing dominance of Gazprom on the European gas market is unconventional production, in particular, **shale gas** production in Europe. Such an optimistic view was fueled in the aftermath of the so-called "shale gas revolution" in America during which the American President declared ambitious goals, stating that thanks to the boom of shale gas production, the USA has become self-sufficient in gas for another 100 years[378]. This view grew stronger in the light of the ongoing Russia-Ukraine crisis. However, Europe's optimistic thoughts about a possible repetition of the American "miracle" in Europe — and hence breaking of some EU member-states` heavy dependence on Russian hydrocarbon imports — faced significant problems that decreased the chances of the EU overcoming energy dependence and safeguarding its energy security. According to Nurşin Ateşoğlu Güney, the EU could not replicate the success of Washington due to geological, legal and environmental reasons[379]. Nevertheless, the shale gas issue divided Europe into two groups -proponents and opponents of European production of shale gas. The former group is represented by 20 states, which have permitted exploratorary drilling, however among these countries only two states — Poland and the UK — are actively engaged in applying newly discovered drilling technology, which is known as horizontal fracturing/fracking. The latter group involves countries like Spain, Bulgaria and France, which have banned exploratory drilling at the national level[380]. All in all, according to the analysts of the OIES, should commercial production of shale gas commence this year in Europe, an overal production could only reach 4,2 bcm in the pre-2020 time frame; by the 2030s this volume is projected to increase by 28 to 100 bcm annually. However, as the experts state, in order to reach this volume around 800-1000 wells is to be drilled[381]. Based on the fact that there are only 65 wells and drills in

[378] Mason Inman, "Fracking: Fragliche Schätze", http://www.spektrum.de/news/fracking-gibt-es-genug-schiefergas/1328459 [8.06.2015].
[379] Nurşin A.Güney, "Where Does the EU Stand", op.cit, 24-25; Nurşin A.Güney, "Can the North American Shale Revolution Help Transform Europe`s Energy Landscape", **Bilgesam Analysis**, No.1169 (2014), http://www.bilgesam.org/Images/Dokumanlar/0-100-20141210441169.pdf [8.06.2015].
[380] Ibid.; Ralf Dickel et al., op.cit.
[381] Ralf Dickel et al., op.cit.

Poland[382] – the country which holds the largest shale gas reserves in Europe, it could be argued that the above-mentoned optimistic prognosis is difficult to implement. Therefore, it is not unreasonable to suggest that shale gas production in Europe could only serve as supplementary fuel to other alternative fuel resources and currently cannot contribute to European efforts to make its energy market more independent from Russian gas imports.

4.4.2.3. Alternative 3: Low Carbon Fuel

The 2014 European Energy Security Strategy also stressed the importance of **low carbon fuel** as a reliable energy source. Its increased production could mitigate EU heavy reliance on Russian "blue gold" and ensure energy security. It is important to mention that this type of fuel is of particular importance to the EU, since de-carbonization of the energy market is one of the principal objectives of the overall EU energy strategy. As the provisions of the 2030 European Energy Strategy state, the EU member-states should decrease greenhouse emissions by 40% in 2030 as compared to 1990, increase the share of renewable energy by 27% in the EU mix and improve the energy efficiency by 30%[383]. Therefore, it could be argued that diversification of EU energy sources through renewable fuel should not be accepted as just an emergency measure to the third Ukrainian crisis, but as a long-term strategy that has evolved in the pre-crisis time frame.

Biogas/ green gas as one of the "prominent representatives" of low carbon fuel is accepted as an equivalent of natural gas, therefore could be utilized in many of the same applications as the Russian "blue gold." According to the statistics of the EU observer, in 2012 the EU produced nearly 14 bcm/year of biogas[384]; by 2020, however, this figure is estimated to double[385]. Despite the gradual increase in biogas production, it is sometimes suggested that green gas "is likely to make a much greater contribution to

[382] "Shale Gas in Poland- from Exploration to Exploitation", **EurActiv**, 12 September 2014, http://www.euractiv.com/sections/poland-ambitious-achievers/shale-gas-poland-exploration-exploitation-308387 [9.06.2015].
[383] European Commission, http://ec.europa.eu/energy/en/topics/energy-strategy/2030-energy of the -strategy [10.05. 2015].
[384] Germany- 53%, the UK-15% and Italy- nearly 10% and others. See Ralf Dickel et al., op.cit.
[385] Ibid.

European natural gas balances" than shale gas only by the 2030s. Notwithstanding, it would be a mistake to think that estimated increase in biogas can actually ensure overall energy security for Europe, since for the time being none of the vulnerable customers in the South-Eastern and Baltic region are involved in production of green gas[386].

4.4.2.4. Alternative 4: Nuclear Fuel

In contrast to the above-mentioned alternative energy source, **nuclear fuel** could contribute to European efforts of breaking its dependence on Russian gas, decarbonize its energy market and ensure its energy security if fully produced within the EU and was not imported from outside[387]. According to the Eurostat, about 27 % of consumed electricity is produced domestically through 136 nuclear reactors[388] that operate in 14 member-states (see Appendix 5). The most significant users of nuclear fuel are France, Belgium and Slovakia[389]. However, there are three main problems that hinder further development of nuclear energy in the EU. Firstly, the majority of EU nuclear reactors (EU plus Switzerland) were technically constructed for a period of up to 40 years, hence require replacement. Secondly, there is no homogenous approach to the production of nuclear energy throughout Europe: some states are planning to build new reactors (Sweden, the Netherlands etc) or introduce nuclear in their energy mix (Turkey, Poland), whereas countries like Germany, Belgium, Spain and Switzerland decided to opt out of nuclear fuel from their energy mixes[390]. And lastly, despite the fact that some of the countries which are heavily dependent on Russia as a single gas supplier have nuclear fuel in their mixes, most of the nuclear plants (existing and planned) in these countries are built with the help of Russian infrastructure and nuclear fuel. For instance, for the time being, Russian nuclear reactors are utilized in Bulgaria, Czech Republic, Finland and Slovakia; Hungary and Finland expressed their will to build nuclear reactor

[386] Ibid.
[387] 95% of uranium is imported in the EU. Nurşin A.Güney, "The Future of European Energy Security: Where Next?" **Bilgesam Analysis**, No.1164 (2014), http://www.bilgesam.org/Images/Dokumanlar/0-100-20141111121164.pdf [9.06.2015].
[388] Ralf Dickel et al., op.cit.
[389] "Nuclear Energy Statistics", Statistics Explained, http://ec.europa.eu/eurostat/statistics-explained/index.php/Nuclear_energy_statistics [8.06.2015].
[390] Ralf Dickel et al., op.cit; this trend was accelerated especially after the Fukushima disaster.

in cooperation with Russia[391]. Therefore, in order not to allow Russia to be a single supplier of the nuclear fuel[392], the EU pays more attention to investments in new nuclear power plants, which are projected to be built or are being built using non-EU technology. Otherwise, it could happen that vulnerable states of the South-Eastern Europe[393] can manage to lessen their 100% dependence on Russian "blue fuel", but would increase their import reliance on Russian uranium. All in all, as the experts from the OIES forecast, nuclear fuel is unlikely to play a significant role in energy mixes of the EU member-states, at least prior to 2020; in the post-2020 time frame an increase in nuclear energy production is difficult to expect[394].

4.4.2.5. Alternative 5: Domestic Energy Production

The diversification projects of the European Union consider also increase in **domestic energy** production as a possible alternative to lessen Russian energy dominance on the European energy market, however, as we have seen from Chapter 3, practically all EU gas producers, except for Norway, have already peaked and follow a declining trend. Therefore, it is quite clear that the EU cannot substitute Russian "blue fuel" with domestic natural gas reserves, however, with adequate investment and efficient energy use it is likely that domestic energy production could contribute in ensuring energy security of the European states.

4.4.2.6. Alternative 6: Finding Other External Energy Suppliers

The 2014 European Energy Security Strategy stressed the importance of diversifying **external suppliers** as a key component of safeguarding the energy security of Brussels. According to the strategy, particular attention should be paid to the SGC[395] and its potential suppliers such as Azerbaijan, Turkmenistan, Iran and Iraq and also potential gas exporters (Northern African and Eastern Mediterranean energy producers)

[391] "Nuclear Power in the European Union", World Nuclear Association, http://www.world-nuclear.org/info/Country-Profiles/Others/European-Union/ [9.06.2015].
[392] European Commission, "European Energy Security Strategy".
[393] Not applicable to the Baltic States, since none of those countries have nuclear reactors. See Appendix 5.
[394] Ralf Dickel et al., op.cit.
[395] For a brief history of the SGC see Chapter 3.3.

that could contribute to a Mediterranean gas hub that is to be formed in southern Europe. However, the question is whether these suppliers could immediately supply to Europe should Europe decide to break its dependence on Russian natural gas as a response to the Kremlin`s aggressive policy in its "Near Abroad."

As we have seen from Chapter 3.3, the EU has had the hope of importing Caspian gas since the 1990s. To that end, Brussels has actively collaborated with **Baku**, which for that time had already developed its Shah Deniz Phase 1- thanks to which Azeri, Turkish and Georgian customers are provided with Azeri gas. The most important project, however, is Shah Deniz Phase 2 — a project which is expected to bring around 10 bcm/year of Azeri gas to the EU[396] through pipelines like TAP, TANAP and SCP[397] by 2019. With the help of envisaged infrastructure in Turkey, this amount is expected to increase by 25 bcm/year[398]. Nevertheless, according to some estimates, the SGC with its existing capacity and infrastructure is able to meet only 3% of European gas demand, that is to say, it is sometimes argued that the SGC could not substitute Russian "blue fuel"[399].

Turkmenistan is a "desired gas supplier" of the EU that possesses huge reserves and produced more than 50-55 bcm of natural gas in 2013. However, as it is often stated Turkmen gas is looking mostly to China (more than 20 bcm of 55 bcm is exported to Beijing) and it is unlikely that this trend is going to change in the mid-term[400].

Iraq also falls into the list of desired external energy suppliers of the EU. However, according to the analysts of the OIES, the desire to export from Baghdad cannot be realized due to enduring political and security problems in Iraq. Owing to this fact, the authors forecast that Iraqi gas might commence to flow to Europe in the annual amount of 10 bcm only in 2030.

[396] "European Energy Security Strategy".
[397] All three pipelines are part of the SGC. However, as some experts argue, so far only the "TAP-TANAP pipeline has found life". For details see Nurşin A.Güney, "Where Does the EU Stand", 29.
[398] "European Energy Security Strategy".
[399] Nurşin A.Güney, "Where Does the EU Stand", 29.
[400] Ralf Dickel et al., op.cit.

In regard to suppliers of the Mediterranean gas hub, countries of Northern Africa could serve as a potential source that could lessen Europe's dependency on Russian gas if it were not for the following limitations[401]:

- A post-Arab-spring deterioration of investment climate;
- A post-Arab-spring political instability and security problems.

Owing to these factors, it is argued that possible en route to Europe gas flows from Northern Africa could commence only in the medium term and add up to 41 bcm/year (Algeria).

All in all, none of the non-Russian gas suppliers are capable of bringing their gas **in the short and medium terms**; hence none of the projected alternative supplies are able to substitute Russian "blue gold", at least for now.

4.4. 3. A Worst-case Scenario for the European Union and Continuation of European Reliance on Russia

As we have seen from the previous chapter, the emergence of the third Ukrainian crisis, first of all, demonstrated that existing EU-Russia energy dialogue is still vulnerable and, secondly, fueled the idea that Europe should immediately break its dependence on Russian natural gas. To that end, the European Commission adopted new strategies and projects, called for member-states to diversify their energy routes, resources and suppliers[402] and to apply "a coherent and targeted foreign policy" towards potential external energy suppliers[403]. From the previous pages, it can be concluded that much work has been done in this regard. However, there is still a possibility that the objectives of the EU stated in the official documents could not be realized and expended efforts were in vain. Under this scenario (a worst case scenario for Brussels) it is envisaged that European dependence on Russian energy imports will be continued even in the long term and desired energy security will not be secured via non-Russian energy resources. Moreover, this worst-case scenario could happen as result of a lack of a

[401] Ibid.
[402] Non-Russian.
[403] "European Energy Security Strategy".

single “energy voice” and inability of potential energy suppliers to bring their energy to Europe.

It could be claimed that Russia`s aggression in Ukraine, to a certain extent united EU member-states, so that Poland’s initiative to create the Energy Union was immediately picked up by the Europeans[404]. However, there are plenty of reasons that could challenge post-crisis established EU unity to decrease its dependence on “blue fuel”, for example:

- Under the long-term supply contract the Europeans are contractually obliged to buy around 115 bcm of Russia “blue gold” annually until the mid-2020s[405]. It might happen that some EU members putting their business and national interests above their political obligations extend their gas contracts with Gazprom[406]. Moreover, it might happen that after five years the existing desire to abandon Russian dependency will not be as strong as it is nowadays.
- The EU unity could be shattered if less developed member-states, including vulnerable states of the South-Eastern and Baltic regions, run out of patience with the strict obligations connected with liberalization of the EU energy market (the TEP, transition from PP to EE system and so on[407]).
- Despite the recent deterioration in relations between Russia and Europe, some members could prefer Russian natural gas over renewables, US LNG and other alternatives because of the high cost of those substitutes. Moreover, these potential “unity-breakers” could justify themselves from the fact that Russian gas in contrast to other alternatives (see the previous section) is purchased in bulk and from one source.

Nevertheless, it is possible that none of the above-mentioned pessimistic evaluations will happen and Europeans can avoid this worst-case scenario, as Nurşin Ateşoğlu Güney concluded, “...when the SGC is combined with the completion of the

[404] The crisis also united the EU and USA, so that in the aftermath of the crisis both parties decided to impose sanctions on Russia.
[405] Ralf Dickel et al., op.cit.
[406] Taking into account that at that time the Kremlin could end up Ukraine transit, the Europeans might decide that “freed from the problematic transit” Russia would not have any reasons to disrupt en route Europe gas.
[407] For details see Chapter 4.2.

compulsory energy infrastructure in Europe, including the construction of certain interconnectors, reverse-flow pipelines, LNG terminals and so on."[408]

[408] Nurşin A.Güney, "Where Does the EU Stand", 30.

5. CONCLUSION

Before summarizing the main findings of the previous chapters it would be significant to give a brief overview of the chapters. The dissertation gives a comprehensive analysis of Europe-Russia gas relations. Chapter 1 is an introductory, and specifies the objectives that are pursued in the thesis. It also considers the factors that have persuaded the author to choose the EU-Russia gas relations as the topic of the dissertation. Chapter 2 looks at the evolution of the Soviet gas industry and natural gas trade with Eastern and Western Blocs. Chapter 3 analyzes the changes that have taken place in the gas trade between Russia and Europe after the collapse of the Soviet Union. It also considers the current situation and outlooks of Russian and European gas industry and clarifies the reasons of the EU`s high dependence on Russian "blue gold". The institutional base of the EU-Russia energy dialogue is also considered in this chapter. Chapter 4, first, deals with the problems that exist in the EU-Russia gas trade and how they prevent the sustainable and constructive collaboration between the parties. Secondly, the penultimate chapter presents the potential impact of the ongoing crisis in Ukraine and future expectations in the EU-Russia energy interdependence.

A brief overview of the findings of the thesis can be shown as follows:

Table 7: EU-Russia Energy Relations: A Brief Assessment

	Cold War period	**Post-Cold War period**	**Post-Ukrainian (2014) crisis period**
EU-Russia energy relations	Commercial partnership with minor elements of political rapprochement	Strategic partnership-state of economic, political, energy and etc. collaboration	Commercial partnership?

Russia	Reliable energy supplier	Unreliable energy supplier: gas disputes with the use of energy weapon	Extremely unreliable energy supplier: military, political and energy disputes with the use of energy weapon
Europe	"Economic benefits first" approach: bilateral gas deals with Russia	The "Russia First" approach: bilateral gas deals with Russia	The "Eastern Europe First" approach: a joint gas deal via the Energy Union?

At the beginning of our "journey" through the fascinating history of the EU-Russian strategic relationships with regard to gas relations, it was mentioned that the purpose of this thesis would be to understand and evaluate the development of EU-Russia gas interdependence, identify the basic principles of gas relations between Brussels and Moscow and, finally, determine whether any changes have occurred in the energy dialogue after the end of the Cold War. Based on the findings of the preceding chapters, it can be concluded that the overall objective of the thesis was largely achieved. By understanding how Europe's growing reliance on Russian gas developed-, I came to the conclusion that both sides, the Soviet Union and Western Europe, while at the same time being cores of the two opposing blocs, welcomed the idea of red gas crossing the Iron Curtain. Moreover, the gas relations in the Cold War period were of mutual benefit for both parties. Initially started as a commercial partnership, this gas interdependence over time and through the active efforts of Germany had been gradually converted into the *commercial partnership* with minor elements of political rapprochement. More importantly, that kind of attitude from Western European countries towards the USSR was encouraged by the fact that the Soviet Union, despite the existing Cold-war hostile atmosphere, never disrupted red gas flows for political reasons. The Soviet Union`s image as a reliable gas supplier served as a testimony for European countries to continue their gas dialogue and a reason for moving from a commercial partnership to a *strategic partnership* with Russia even after the fall of the Soviet Union and the end of the Cold War respectively. Therefore, it can be concluded that the collapse of the USSR had not become a reason to change the collaborative

atmosphere between Russia and Europe. However, this fact did not give us the right to claim that no changes had taken place in the post-Cold War gas relations between Moscow and Brussels, since the energy dialogue between the parties had started to be threatened by Russia`s frequent attempts to use its energy as a *weapon* in its Near Abroad. Due to this fact, Russia turned from a long-term, reliable gas supplier into an unreliable one. However, Europe took lightly Russia`s new behavior even with the emergence of the 2000s Ukraine-Russia gas disputes due to the "Russia first" policy. Europe mostly preferred to turn a blind eye to Russia`s policy towards the transit countries, because it had a fear that Russian-transit countries crises could turn into the EU-Russia gas disputes. Yet Brussels had started to have concerns regarding its energy partnership with Moscow and adopt different strategies and projects aiming at safeguarding its energy security such as: diversification of gas imports and reducing heavy hydrocarbon dependence on Russian "blue fuel", to name but a few.

The emergence of the third Ukrainian crisis was a signal to Europe to accelerate their efforts of breaking away their gas reliance on Russia. The history of the EU-Russia gas relations, especially the post-Cold War period, is replete with examples of Russia having gas disagreements with the Western CIS states, which at the same time are the main transit countries of the EU-destined Russian gas. However, the 2014 Ukraine-Russia energy crisis is without a doubt of more particular importance than the previous gas disputes. Firstly, it has lasted since 2013[409]; secondly, Russia had used military force on the territory of Ukraine and, finally, the European Union/United States imposed sanctions on Russia as a sign of their condemnation of the Russian policy in Ukraine. All these events suggest that the ongoing crisis cannot be labeled as just an energy crisis between Russia and Ukraine; it is actually a political, military and energy crisis between Russia, Ukraine and the West.

In fact, the enduring Ukrainian crisis had served as a wake-up call and potential reason for Brussels to depart from the "Russia first" to "Eastern Europe first" policy. However, as the previous chapter illustrates, even within the newly developed "Eastern Europe first" policy Brussels will not able to break its "blue-gold" dependence to the

[409] Anti-government protests in Ukraine have started in 2013.

Kremlin in the short and medium terms. Under the "worst-case scenario" this aim might not be realized even in the long term if the EU member-states do not display the necessary political will and begin to speak with a single "energy voice" in order to safeguard the energy security. It is also unreasonable to suggest that if the "Eastern Europe First" approach of Brussels is applied and Europe starts to act in the best interest of Eastern European countries, the existing "strategic partnership" in the EU-Russia gas relationship could turn into a "commercial" one —when the parties would be willing to interact with each other only due to business considerations. This could also be the case if Moscow fails to reform its behavior towards the Near Abroad and give up its habit of challenging the energy security of Europe by using the "energy weapon".

Another important change that might happen after the 2014 Russia-Ukraine-European Union crisis is that European countries could abandon the principle of concluding bilateral gas deals with Russia. The Cold War and post-Cold War "commercial" and "strategic" gas ties between Russia and Europe have been based on long-term gas contracts. Each of Russia`s customers has obliged to conclude gas agreements with Russia separately. In the aftermath of the recent events in Ukraine, Brussels has accelerated its efforts of making a common energy strategy. To that end, Europe projects to establish a "resilient Energy Union", within which it plans to purchase energy via centralized procurement. By doing so, Brussels aims at increasing the EU`s (especially its small- and medium- sized members`) purchasing and bargaining power vis-à-vis Russia. This projection seems plausible only after the year 2030, when most of Gazprom`s long-term gas deals with European countries will be expired. However, as mentioned before, it might happen that due to the lack of political will of the EU member-states, the gas supply contracts with Gazprom can be extended. The recent British Centrica`s extension of the contract best demonstrates this statement[410].

Therefore, given the prevailing uncertainty surrounding EU-Russia gas ties` development following the third Ukrainian crisis; it is hard to say what will change in the EU-Russia energy dialogue even in the long term. The only thing that should be

[410] Christopher Adams, "Centrica Extends Gas Deal with Gazprom and Statoil", **Financial Times**, 13 May 2015, http://www.ft.com/cms/s/0/6fb10734-f969-11e4-be7b-00144feab7de.html#axzz3g4iMPGU1 [16.07.2015].

emphasized in the post-2014 Ukrainian crisis period is that henceforth the energy security of Europe is a priority on the European Union`s agenda.

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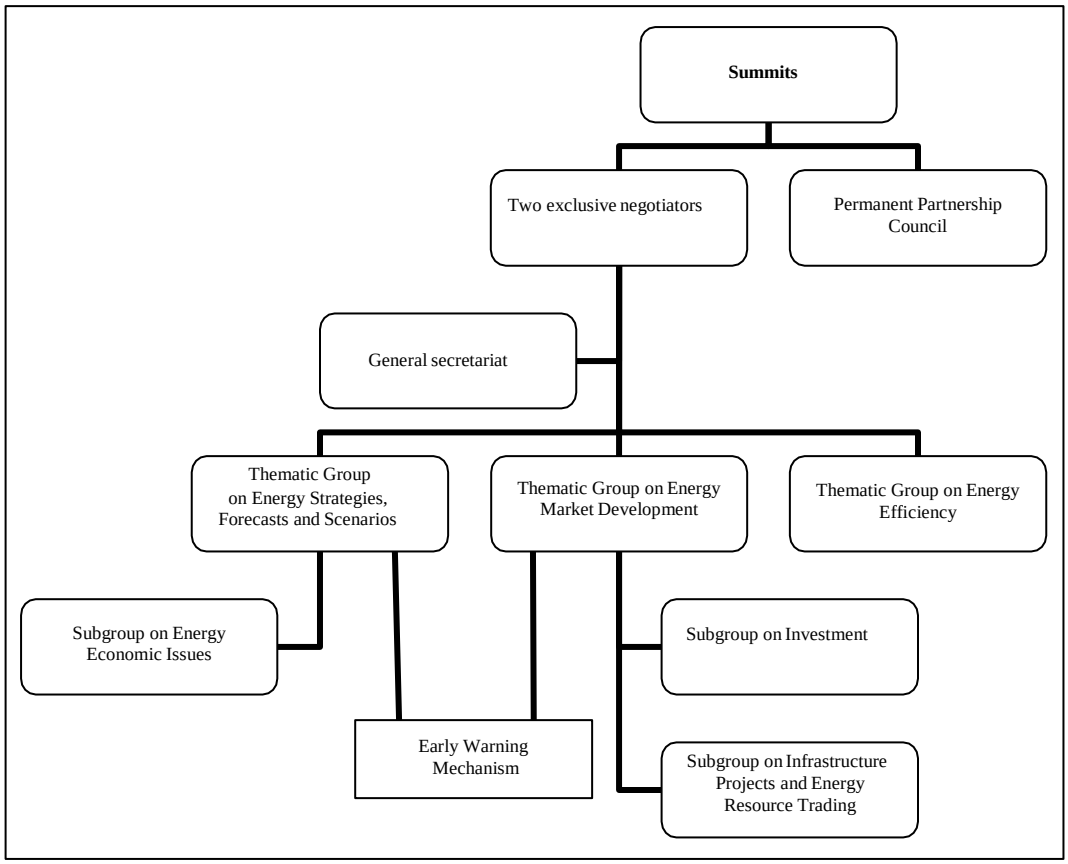
APPENDICES

Appendix 1. The 2000-2007 Institutional Structure of the Energy Dialogue



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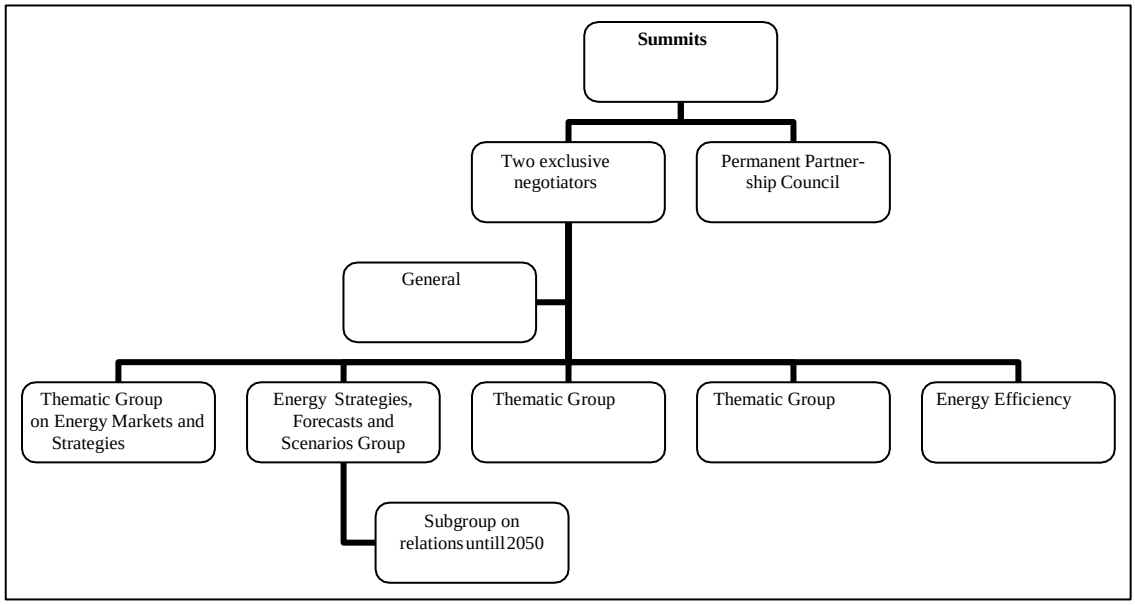
Appendix 2. Post -2011 Institutional Structure of the Energy Dialogue



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Appendix 3. Proven Reserves, Production and Consumption of Natural Gas in Kazakhstan, Uzbekistan and Turkmenistan (from 2010 BP Statistical Review of World Energy)

Country	Kazakhstan	Uzbekistan	Turkmenistan
Proven reserves, tcm	1,82	1,68	8,10
Production, bcm	32,2	64,4	36,4 (59,5)
Consumption. bcm	19,6	48,7	19,8

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Appendix 4. EU-destined Gas Deliveries of Russia: Volumes and Borders Crossed, 2011

EU member states	Delivery points borders	Volumes, bcm/year	Int EU borders with EU countries	Sum of borders that should be crossed by before reaching delivery points
Austria	Baumgarten	4.9	Ukraine/Slovakia Slovakia/Austria	2
Belgium	Eynatten	7.4	Belarus/Poland Poland/Germany	3
Czech Republic	Lanzhot	6.9	Ukraine/Slovakia Slovakia/Cze	2
Finland	Imatra	3.8	Russia/Finland	1
France	Mendelsheim	8.6	Ukraine/Slovakia Slovakia/Austria Austria/Germany Germany/France or Belarus/Poland Poland/Germany Germany/France	4 or 3
Germany	Mallnow Waidhaus V. Kapusani	30.8	Belarus/Poland Poland/Germany and Ukraine/Slovakia Slovakia/Czech Czech/Germany or Ukraine/Slovakia	2 and 3 or 1
Greece	Sidirokastron	2.6	Moldova/Romania Romania/Bulgaria	3
Hungary	Beregovo	5.7	Ukraine/Hungary	1
Italy	Tarvisio	15.4	Ukraine/Slovakia Slovakia/Aust	3

Appendix 4- continued

The Netherlands	Oude Statenzijl	4	Belarus/Poland Poland/Germany Germany/the Netherlands	3
Poland	Kondratki Drozdovichi	9.3	Belarus/Poland and Ukraine/Poland	1 1
Slovakia	Velke Kapusani	5.3	Ukraine/Slovakia	1
Bulgaria	Negru Voda	2.5	Moldova/Romania Romania/Bulgaria	2
Romania	Isakcha	2.2	Moldova/Romania	1
Slovenia	Cersak	0.5	Ukraine/Slovakia Slovakia/Austria Austria/Slovenia	3
Other Europe		7.3		
EUROPE		140.6		

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Appendix 5. Production of Nuclear Heat in the EU/thousand mtoe (2009-2013)

	2009	2010	2011	2012	2013
EU-28	234 178	234 079	232 009	224 540	223 009
Belgium	12 304	12 492	12 568	10 499	11 111
Bulgaria	3 878	3 849	4 105	4 020	3 668
Czech Republic	6 975	7 293	7 369	7 901	8 036
Denmark	0	0	0	0	0
Germany	34 733	36 201	27 807	25 619	25 052
Estonia	0	0	0	0	0
Ireland	0	0	0	0	0
Greece	0	0	0	0	0
Spain	13 783	16 135	15 045	15 991	14 785
France	106 857	111 612	115 209	110 883	110 415
Croatia	0	0	0	0	0
Italy	0	0	0	0	0
Cyprus	0	0	0	0	0
Latvia	0	0	0	0	0
Lithuania	8 800	0	0	0	0
Luxembourg	0	0	0	0	0
Hungary	3 878	3 963	3 965	3 986	3 870
Malta	0	0	0	0	0
Netherlands	980	917	959	920	656
Austria	0	0	0	0	0
Poland	0	0	0	0	0
Portugal	0	0	0	0	0
Romania	2 980	2 923	2 979	3 009	2 922
Slovenia	1 355	1 335	1 471	1 308	1 251
Slovakia	3 783	3 853	4 027	4 050	4 111
Finland	5 762	5 565	5 627	5 536	5 694
Sweden	12 881	13 994	15 252	15 632	15 996
United Kingdom	15 229	13 947	15 626	15 206	15 443
Iceland	0	0	0	0	0
Norway	0	0	0	0	0
Serbia	0	0	0	0	0

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CURRICULUM VITAE

Zhanyl Bozayeva

PERSONAL INFORMATION:

PLACE OF BIRTH:	Kazakhstan
DATE OF BIRTH:	20.09.1989
EMAIL ADRESS:	zhnlbzv89@gmail.com

EDUCATION:

09/2012 to date	Yildiz Technical University (YTU) - Istanbul, Turkey MA, Department of Political Sciences and International Relations Thesis: "EU-Russia Strategic Relations: A Gas Issue"
03/2014-08/2014	University of Konstanz- Konstanz, Germany Erasmus Exchange Program Department of Politics and Public Administration
09/2007 -06/2011	Al-Farabi Kazakh National University- Almaty, Kazakhstan BA, Department of International Relations. Graduated with academic excellence Diploma Project: "Contemporary Migration Processes in Central Asian Region"

PROJECTS

07/2014	Speaker at Symposium "A Dialogue Between Central Asia Countries and Japan", Tokyo, Japan

PROFESSIONAL EXPERIENCE

06/2011- 09/2011	Electronic Commerce Centre– Astana, Kazakhstan/Technical Support Manager Assistant
01/2011 - 04/2011	Ministry of Foreign Affairs of Kazakhstan- Astana, Kazakhstan