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## The Role of Gazprom in Russian-European Economic Relations

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#### Declaration:

I hereby declare that I am the sole author of the thesis entitled "The Role of Gazprom in Russian-European Economic Relations" I duly marked out all quotations. The used literature and sources are stated in the attached list of references.

In Prague on 06.09.2013

Sergey Garmaev

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#### Introduction

In today's world with the fast growing population and rapidly changing technologies, people need more energy than ever before. The sources of energy and their capacity as well as stable and secured supply are the most discussed topics of the time. This work is aimed to describe the role of Russian giant gas company Gazprom and its influence on the relations between Russian Federation and the European Union. The main aspect of this work is to examine the reliance of European governments on Gazprom. What are the benefits of such partnerships and the drawbacks? How do the conflicts arise and how are they solved? Is EU afraid of being dependent on Russian gas? To answer these questions it is important to look at the nature of Russian-EU relations, paying specific attention to the concept of Energy Security, which has become a priority issue these days. When it comes to Russian gas and the gas industry itself, a company of the size of Gazprom cannot be ignored.

Russia and Europe have a long term relations which dates back to 1969, when Italian energy giant ENI signed a twenty-year deal with the Soviet Ministry of Foreign Trade for the supply of a hundred billion cubic meters of natural gas. Since the collapse of the Soviet Union, Russia has exported to Europe more than two trillion cubic meters of natural gas (a 73 percent increase since the early 1990s). Today Gazprom is the main single gas supplier of the EU. With an annual export of roughly 113 bcm, it accounts for 33 percent of EU gas imports and 24 percent of its total consumption. However, Gazprom depends on the sales to the EU as much as the EU depends on the gas supplies from Gazprom. The EU is by far the largest and most profitable market for Russian company. In 2011, 54 percent of total Russian gas exports went to EU countries, with Germany alone accounting for 15 percent of Gazprom's total sales.

<sup>&</sup>lt;sup>1</sup> Smeenk T., *Russian Gas For Europe: Creating Access and Choice*, The Hague, Clingendael International Energy Programme, July 2010, http://www.clingendael.nl/publications/?id=8038.

<sup>&</sup>lt;sup>2</sup> ENI, World Oil & Gas Review 2012, September 2012, https://www.eni.com/world-oil-gas-review-2012/wogr.shtml.

<sup>&</sup>lt;sup>3</sup> ENI, World Oil & Gas Review 2012.

By taking all of it into account, it is obvious that Gazprom has an industrial strategy that is aimed at maintaining the company's position in EU markets. A crucial element of it is Gazprom's heavy investments in European midstream and downstream sectors. In the *midstream* domain, Gazprom has promoted the diversification of export routes and the realization of its own pipeline capacity in the EU. Gazprom's pipelines, Yamal-Europe, Nord Stream and yet to be finished South stream project are all considered as the way to expand the company's power to the profitable German and Italian markets. Another reason behind is to bypass transit countries like Ukraine and for some extent Belarus. This diversification strategy seems to be profitable for both Russia and the EU. Lastly, the company is aimed to purchase European energy company's shares such as German Wingas to get a direct access to the UK's and Belgium's markets. As for the *downstream* market, the Russian company has reinforced its acquisitions in the gas storage sector, which allows it to keep control over seasonal variations in consumption and unexpected interruptions during peak seasons.

This work consists of four parts. In order to better understand the nature of Russia-EU relations the first part is dedicated to the short description of the company and the history of Gazprom and soviet gas industry also mentioning political implication in transactions regarding the industry. Although, the company officially exists from 1989, its history starts from the Soviet times and despite of overall decline of soviet industry after the USSR collapse and total privatization, the company managed to survive and retain most of its assets. It is mainly due to the complex procedure of gas exploration and unified system of its transportation that could not exist separately. Additionally, Russian political elite understood how important was gas industry for maintaining and retrieving its positions on the world's arena.

The second part attempts to describe the activities of Gazprom on the European continent. First of all, the mains connecting the gas fields in Siberia and Far East with Europe, currently operating and planned projects such as North Stream and South Stream; the counterparties involved in these projects, the technological process and the volumes that can be carried through these mains. Secondly, the description of the Underground Gas

<sup>&</sup>lt;sup>4</sup> The oil and gas industry is usually divided into three major sectors: upstream, midstream and downstream. The upstream oil sector is also commonly known as the *exploration and production* (*E&P*) sector.

Storages (UGS) in Europe comes, which also play an important role in the development and growth of Gazprom's influence in Europe. The chapter also includes the list of largest counterparties of Gazprom on Western markets.

The third part is aimed to provide information on Energy Security concept, its main principles, issues between Russia and EU and gas conflicts with Ukraine, its background, results and consequences. The paragraph attempts to generalize the chaotic mosaic, which is composed of energy security issues, and enlarges the picture. A great attention will be paid to identifying the main trends that affect the international energy security, the formulation of the balance of interests between net exporters and net importers of natural gas. By genre this paragraph refers to the conceptual generalizations, accented on the role and capabilities of Russia in solving the problem.

The last part will be dedicated to the official investigation of European Commission. In September 2012 the EC has initiated an antitrust case against Gazprom. According to the Commission, Gazprom has abused its dominant position in the market and pointed to three anticompetitive practices of the company that violate European competition rules. Is that proceeding a due technical formality or an attempt to put Gazprom under the pressure and change the situation on the market or reduce gas prices? Moscow appraises this as a political act and reacts equivalently by releasing an executive order signed by president Putin, which prohibits Russian strategic companies to disclose any information to foreign officials.

In the first chapter, the main sources for the data analysis will be statistical data from Gazprom's Informatorium and company's annual reports. In the section focusing on the history, the information will be retrieved from various Internet sources as well as from news articles. Additionally, in the introductory part of the chapters dealing with domestic political and economic development of the company, the sources used are mainly international and domestic reports from various institutions, books and also to some extent common knowledge.

Second part will use as its major source of information scholarly journals and analytical papers from political think-tanks as well as from governmental documents and reports. In the last chapter, due to the novelty of the events, few official reports of EU commission will be used, but since this chapter includes many current developments that have not yet been studied in great depth, newspaper mentions of the new trends will be included.

#### 1. Company's Background

#### 1.1 Gazprom at a glance

OAO<sup>5</sup> "Gazprom" - Russian Energy Company engaged in the exploration, production, transportation, storage, processing and marketing of gas, gas condensate and oil, as well as the production and marketing of heat and electric power. The largest company in Russia (according to the magazine "Expert")<sup>6</sup>, the largest gas company in the world, owns the longest gas pipeline system (more than 160 000 km). Is a world leader in the industry. According to Forbes Global 2000 (2013 year)<sup>7</sup>, "Gazprom" for revenue ranks 17th among global public companies. According to the rating of the magazine Forbes (2012), «Gazprom» in 2011 has become the most profitable company in the world.

Full company name - Open Joint Stock Company "Gazprom" previous name - Russian Joint Stock Company "Gazprom". Headquarters - in Moscow. As of October 26, 2006, shareholders of the company were the state on behalf of the Federal Property Agency (38.37%) and "Rosneftegas" (10.74%); NPF "Gazfond" (3.02%), Gazprombank (0.37%), the fund Vostok Nafta (1,3%). E.ON Ruhrgas (a subsidiary of E.ON) controls 6.43% of the shares of "Gazprom"; companies owned by Alisher Usmanov - 1.5%, STC "Nafta-Moscow" - 4.5%, "Inteko" - about 1%, Deutsche UFG - about 3%. Shareholders of "Gazprom" are also its CEO Alexei Miller (0.0027%), as well as top managers Alexander Ananenkov (0.002%) and Andrey Petrov (0.004%). The government owns 50% plus 1 share of "Gazprom".

Currently "Gazprom" is the largest Russian company by market capitalization. The company's capitalization has risen from \$7.5 billion in September 2000 to \$347.6 billion in May 2008. By September 9, 2008 market capitalization of the company fell to \$191.76

<sup>&</sup>lt;sup>5</sup> An Open joint-stock company, abbreviated OJSC (Russian: *Otkrytoe Akcionernoe Obshestvo*, abbreviated Russian: OAO)

<sup>&</sup>lt;sup>6</sup> Expert Magazine № 38, (2009), "List of largest Russian companies according to market capitalization."

<sup>&</sup>lt;sup>7</sup> Forbes (2013), "The world's Biggest Public Companies" http://www.forbes.com/global2000/#page:2\_sort:0\_direction:asc\_search:\_filter:All%20industries\_filter:All%20countries filter:All%20states

billion due to economic downturn. At 1st of September, 2009 the capitalization of "Gazprom" was \$122.0 billion. By the end of 2011 the company's capitalization increased to \$128 billion. According to The Economist (2013), for the period 2008 - 2013 (July) corporation's capitalization decreased from \$367 billion to \$78 billion.

The supreme governing body of "Gazprom" is the shareholders meeting which is a subject to the Board of Directors<sup>8</sup>, which in turn is responsible for general management and the board, which has the functions of the executive body. Key people are: Alexei Miller - Deputy Chairman of the Board of Directors and Chairman of the Management Committee (CEO), Viktor Zubkov - Chairman of the Board of Directors. Zubkov served as the Prime Minister of Russia twice: from September 2007 to May 2008 and briefly in May 2012.

For the company's assets on Russian territory, gas transportation routes, storage facilities and sales structure see Appendix.

#### 1.2 History of Gazprom

#### 1.2.1 Before 1989

The company itself exists under its current name and status from 1989, however its history begins with the start of gas industry development in USSR from the middle of 20th century. At the end of the Second World War the first main gas pipeline was built connecting natural gas fields nearby Saratov and Moscow. The project was initiated in 1944 and went into operation in 1946. The pipeline was 843 km long with the diameter of 325 mm. The pipeline was laid through the territory of Saratov, Penza, Tambov, Ryazan and Moscow regions. Lavrentiy Beria who was in the inner circle of Stalin supervised the project. He was also responsible for a number of major defence industries, including developments related to nuclear weapons and missile technology, which highlights the importance of the gas industry to the USSR<sup>9</sup>. The pipeline was built mainly by captured Germans.

<sup>9</sup> Panyushkin, V., Zygar, M., (2008). "Gazprom is a new Russian Weapon?" Zakharov press. p. 3

<sup>&</sup>lt;sup>8</sup> Gazprom (2013), The Board of Directors, <a href="http://www.gazprom.ru/about/management/directors/">http://www.gazprom.ru/about/management/directors/</a>

The next key event happened in October 1960. "The Bomb" that shook the White House, Downing Street and the board of directors of the "Seven Sisters", "explode" when Enrico Mattei the founder and the president of Italian oil and gas company ENI came to Moscow after the President of the Italian Republic Giovanni Gronchi. During the visit of ENI President in the Soviet capital, the chairman of "Soyuznefteexport" Yevgeny Gurov offered to Italian Concern to take part in the laying of the pipeline "Caucasus - North Sea". The Soviet government has stated its readiness to ship within four years 12 million tons of oil (compared to ENI oil fields in Egypt which were given 1 million tons per year, while production in Iran amounted to 2 million tons per year). In return, the Soviet Union requested 50 tons of synthetic rubber, 240 tons of large diameter steel pipes, pumps for oil and compressors for oil pipelines. Mattei and the Minister of Foreign Trade of the USSR Nikolai Patolichev signed the agreement on 11 October 1960. Of course, with the blessing of Nikita Khrushchev. For Italy, the agreement was extremely profitable. It was able to purchase oil in the USSR for the price of \$1 per barrel, while from Kuwait Italy imported oil for \$1.59 per barrel and plus \$0.59 as transportation costs. For the Soviet Union the benefit was also considerable. The quality equipment purchased from Italy, enabled to carry out an ambitious seven-year economic development plan. Shortly after the agreement Mattei died in the plain crash under mysterious circumstances<sup>10</sup>.

In 1960, the long-term agreement was signed between the Soviet foreign trade organizations and German companies for the supply of large diameter pipes. Chancellor Adenauer initially did not interrupt in the contracts, but later he imposed a ban on it, declaring in April 11, 1963, that the implementation of the contract "threatens the safety of Germany." The government of Germany, following the recommendations of the COCOM<sup>11</sup>, referred to "the interests of the security of the Allies." Lending transactions stopped. As a result of the ban on the export of large diameter pipes, concerns

<sup>&</sup>lt;sup>10</sup> Panyushkin, V., Zygar, M., (2008). "Gazprom is a new Russian Weapon?" Zakharov press. p. 4

<sup>&</sup>lt;sup>11</sup> CoCom is an acronym for *Coordinating Committee for Multilateral Export Controls*. CoCom was established by Western bloc powers in the first five years after the end of World War II, during the Cold War, to put an arms embargo on COMECON countries.

"Mannesmann" and "Krupp" suffered heavy losses<sup>12</sup>. USSR then started to produce pipes in Siberia. The ban on the supply of pipes to the Soviet Union caused a very negative reaction from the business elite of the West and debated in the Bundestag. In the fall of 1969 in West Germany for the first time the government was formed without the involvement of Christian Democrats, and headed by the Chancellor of the Social Democrat Party Willy Brandt and Minister of Foreign Affairs of the Free Democrat Walter Scheel. Which has led to the "deal of the century Gas-Pipes".

In 1970 there were three agreements signed. USSR pledged to deliver annually to West Germany 3 billion cubic meters of natural gas. Germany, represented by the firm Mannesmann undertook to pay for the fuel received 1.2 million tons of large-diameter pipes intended for the construction of a gas pipeline to the West. The company Ruhrgas of Essen had to buy gas and supply it to customers in Germany through their own distribution networks. Transaction's financial security was guaranteed by Deutsche Bank, which allocated concessional loan of 1.2 billion marks. Since the 1960s under the contract of the century "gas-pipe" pipes for gas pipelines of large diameter (1420 mm), were supplied by the German company Mannesmann, and by the end of the 1980s the share of the concern "Mannesmann" in the total supply of pipes never fell below 40% <sup>13</sup>. Through this exchange of goods the framework of cooperation "infrastructure and money in exchange for gas" was laid. From the supplied pipes the following main gas pipelines were built: Orenburg - Western Border, Urengoy - Pomary - Uzhgorod and Yamburg - Western border.

A separate Soviet gas industry was created in 1943. Large natural gas reserves discovered in Siberia and the Ural and Volga regions in the 1970s and 1980s enabled the Soviet Union to become a major gas producer. Gas exploration, development, and distribution were centralized in the Ministry of Gas Industry, which was created in 1965. In October 1, 1973 at 13:15 Moscow time gas from USSR for the first time went to Europe<sup>14</sup>.

<sup>&</sup>lt;sup>12</sup> Labeckaya, E., Lukyanov, F. (2000) "Chroniles of the largest transaction in the Russian-german history". http://www.pseudology.org/gazprom/USSR\_FRG.htm

<sup>&</sup>lt;sup>13</sup> Solozobov, Y. (2005) "Once again about gas and pipes". http://www.apn.ru/opinions/article9309.htm

<sup>&</sup>lt;sup>14</sup> Panyushkin, V., Zygar, M., (2008). "Gazprom is a new Russian Weapon?" Zakharov press. p. 4

#### 1.2.2 After 1989

In August 1989, the Council of Ministers of the USSR transformed Ministry of Gas Industry of the USSR into a State Gas Concern Gazprom (in 1993 became RAO "Gazprom")<sup>15</sup>, which became the country's first state-corporate enterprise. The company was still controlled by the state, but now the control was exercised through shares of stock, 100% of which were owned by the state. Viktor Chernomyrdin was elected as the first chairman of the company. After the Soviet Union dissolved in late 1991, assets of the former Soviet state in the gas sector were transferred to newly created national companies such as Ukrgazprom and Turkmengazprom. Gazprom kept assets located on the Russian territory, and was able to retain monopoly in the gas sector. Assets in the oil industry, on the other hand, were divided among several companies. Overall after the USSR collapse Gazprom lost 1/3 of its pipelines, 1/3 of gas fields and ¼ of compressor stations in the territory of soviet republics. However, unlike USSR, Gazprom continued to exist. The reason for that according to the ideologist of Russian privatization Anatoly Chubais was that in heavy machinery industry or oil industry every factory director felt himself independent, all of them resisted privatization, but as they were all scattered, finally surrendered. Roughly speaking oil can be put in a bucket and taken away, while gas is highly volatile and any failure in the technological process of extraction or transportation could lead to sad consequences 16. Huge gas oceans, gas mains, compressor stations, all of that were interconnected and couldn't exist on their own. Gazprom's empire was entirely controlled from the headquarter in Moscow by chairman of the board.

In December 1992, Russian President Boris Yeltsin appointed Viktor Chernomyrdin as the prime minister, which contributed to a sharp increase in the economic power of "Gazprom" which has received from the state significant tax benefits. Rem Viakhirev took Chernomyrdin's place as Chairman both of the Board of Directors and of the Managing Committee. In the course of market reforms part of "Gazprom" shares have been "sold" in exchange for privatization vouchers. The sale of shares was strictly regulated, foreign

<sup>&</sup>lt;sup>15</sup> RF Government Decree of 17.02.1993 N 138 "on establishing a Russian joint stock company "Gazprom". http://government.consultant.ru/page.aspx?1248888

<sup>&</sup>lt;sup>16</sup> Panyushkin, V., Zygar, M., (2008). "Gazprom is a new Russian Weapon?" Zakharov press. p. 12

nationals, according to the ordinance of the company, could not own more than 9% of the shares<sup>17</sup>.

The new government was petulant to start economic reforms and initiated privatization of Gazprom. Following the Decree of the President of the Russian Federation of 5 November 1992 and the Resolution of the Government of Russia of 17 February 1993, the company transferred into a joint-stock company and began to distribute shares using the voucher method: every citizen in Russia received vouchers to buy shares of formerly state-owned companies. By 1994, 33% of the Gazprom's shares had been bought by 747,000 Russian citizens, mainly in exchange for the vouchers<sup>18</sup>. 15% of the stock was also purchased and allocated to Gazprom employees. The state kept 40% of the shares, but the amount was then steadily lowered to 38%. Gazprom slowly established credibility in the western capital markets and in October 1996, has sold 1% of its shares in the form of Global Depositary Receipts and in 1997 - Bonds in the amount of \$2.5 billion<sup>19</sup>.

As the Prime Minister of Russia, Chernomyrdin still cared about Gazprom and sought to ensure that the government did not closely regulate Gazprom. As a result, the company was able to avoid taxes on a grand scale, and a little dividends were received by the state. The management and board members initiated a massive dismantling of company's assets, and Gazprom's property was sliced out to them and their families. One of the largest stripped assets was transferred to the controversial gas-trading company Itera. In March 1998, for reasons not related to Gazprom, Yeltsin dismissed Chernomyrdin from his position as Prime Minister. On 30 June 1998 Chernomyrdin returned to the company as the chairman of the board of directors. And at the same time the Government filed "Gazprom" a requirement to pay the multi-billion dollar tax debt. When the tax police started to seize the assets of "Gazprom", the company was forced to pay taxes. That year, for the first time the company has showed a loss.

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<sup>&</sup>lt;sup>17</sup> <sup>18</sup> <sup>19</sup> TADVISER, "History of Gazprom".

 $<sup>\</sup>frac{\text{http://www.tadviser.ru/index.php/\%D0\%A1\%D1\%82\%D0\%B0\%D1\%82\%D1\%8C\%D1\%8F:\%D0\%98\%D1\%81\%D1\%82\%D0\%BE\%D1\%80\%D0\%B8\%D1\%8F\_\%D0\%93\%D0\%B0\%D0\%B7\%D0\%BF\%D1\%80\%D0\%BE\%D0\%BC\%D0\%B0$ 

Gazprom's situation changed abruptly in June 2000, when Vladimir Putin became the President of Russia. Putin launched a campaign to rein in the oligarchs and, per his policy of the so-called national champions, to establish state control in strategic companies<sup>20</sup>. He launched an attack against what he saw as mismanagement and personal pilfering of state assets. After coming to power, Putin immediately fired Chernomyrdin from his position as the chairman of the company's board and used the stock owned by the state to vote out Vyakhirev. The two men were replaced by Dmitry Medvedev (served as the President of Russia (2008-2012) and Alexei Miller, who had previously worked with Putin in Saint Petersburg. Putin's actions were aided by shareholder activism of Hermitage CEO William Browder and former Russian finance minister Boris Fyodorov. Miller and Medvedev were assigned the task of stopping the asset-stripping, but also to regain lost possessions. By denying Itera access to Gazprom's pipelines, Miller almost forced Itera to declare bankruptcy. As a result, Itera's management agreed to sell the stolen assets back to Gazprom<sup>21</sup>.

In June 2005, Gazprombank, Gazprominvest Holding, Gazfond and Gazprom Finance B. V., subsidiaries of Gazprom, agreed to sell a 10.7399% share to the state-owned company Rosneftegaz for \$7 billion, at what some western analysts viewed as an undervalued price<sup>22</sup>. The sale was to be completed by 25 December 2005, which, combined with the 38% share of the State Property Committee, gave the Russian government control over the company. As the Russian state had now acquired a controlling share, the 20% restriction on foreign investment in Gazprom was lifted, and the company became fully open to foreign investors. On 20 July 2006, the Federal Law "On Gas Export" granting Gazprom exclusive right to export natural gas was published, and hence came into force<sup>23</sup>. It was

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<sup>&</sup>lt;sup>20</sup> Goldman, Marshall I. (2008). "5". *Petrostate: Putin, Power and the New Russia*. Oxford University Press. pp. 104-105

<sup>&</sup>lt;sup>21</sup> Goldman, Marshall I. (2008). "5". *Petrostate: Putin, Power and the New Russia*. Oxford University Press. pp. 141-142

<sup>&</sup>lt;sup>22</sup> BBC News. (2005) Kremlin agrees price on Gazprom. http://news.bbc.co.uk/2/hi/business/4100820.stm

<sup>&</sup>lt;sup>23</sup> RG.RU. (2006) Federal Law of the Russian Federation dated 18 July 2006 N 117-FZ http://www.rg.ru/2006/07/20/gaz-export-dok.html

almost unanimously approved by the State Duma on 5 July, by the upper house, the Federation Council on 7 July and signed into law by President Vladimir Putin on 18 July.

On 4 September 2012, the European Commission launched an anti-trust procedure against Gazprom. The Brussels-based competition watchdog said it started the formal legal probe based on "concerns that Gazprom may be abusing its dominant market position in upstream gas supply markets." The case will be reviewed more deeply in the 4<sup>th</sup> part of this work.

There were also few important acquisitions made by Gazprom, after President Putin came to power. It is worth to mention them as those acquisitions are related to the establishment of power over political situation in Russia by Gazprom and its masters. In April 2001 Gazprom took over Russian nation-wide TV station NTV, which has been the only stateindependent station in the country, the station previously belonged to the oligarch Vladimir Gusinsky's Media-Most holding<sup>24</sup>. On 13 June, 2000 Gusinsky was arrested on charges of fraud on a large scale and was placed in Butyrskaya prison, and on June 16 was released on his own recognizance. In 2002 the Gazprom subsidiary Gazprom Media acquired all of Gusinsky's shares in the companies held by Media-Most. On 14 November, 2011, speaking at the Commercial Court in London as a witness at the trial of the suit of Boris Berezovsky to Roman Abramovich, the other two Russian oligarchs, the former head of the Presidential Administration Alexander Voloshin denied reports that Gusinsky sold his media holding "Media-MOST" to Gazprom under pressure in exchange for the withdrawal of criminal charges. Despite the fact that many of the circumstances indicate otherwise, Voloshin said that it was a voluntary transaction<sup>25</sup>. It is worth noting that previously Boris Berezovsky held the largest share of the country's main channel "1st channel", however he had to sell that and now Russian Federation holds 75% of shares of "1st channel". In September 2005, Gazprom bought 72.633% of the oil company Sibneft (now GazpromNeft) for \$13.01 billion, aided by a \$12 billion loan, which consolidated

<sup>&</sup>lt;sup>24</sup> BBC News. (2001) Russian NTV handed to Gazprom http://news.bbc.co.uk/2/hi/europe/1313050.stm

<sup>&</sup>lt;sup>25</sup> PBK (2011) "Voloshin: Kursk's tragedy was beneficial to Berezovsky" <a href="http://top.rbc.ru/society/14/11/2011/624925.shtml">http://top.rbc.ru/society/14/11/2011/624925.shtml</a>

Gazprom's position as a global energy giant and Russia's biggest company<sup>26</sup>. On the day of the deal the company was worth £69.7 billion or US\$123.2 billion. In December 2006, Gazprom signed an agreement with Royal Dutch Shell, Mitsui and Mitsubishi, taking over a 50% plus one share in Sakhalin Energy<sup>27</sup>. In June 2007, TNK-BP, a subsidiary of BP plc, agreed to sell its stake in Kovykta field in Siberia to Gazprom after the Russian authorities questioned BP's right to export the gas to markets outside Russia<sup>28</sup>. On 23 June 2007, the governments of Russia and Italy signed a memorandum of understanding to cooperate on a joint venture between Gazprom and Eni SpA to construct a 558-mile (900 km) long gas pipeline to carry 1.05 trillion cubic feet (30 km³) of gas per year from Russia to Europe. The South Stream pipeline would extend under the Black Sea to Bulgaria with a south fork extending to Italy and a north fork to Hungary<sup>29</sup>.

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<sup>&</sup>lt;sup>26</sup> Yenikeyeff, S, (2011) "BP, Russian billionaires, and the Kremlin: a Power Triangle that never was", Oxford Energy Comment

<sup>&</sup>lt;sup>27</sup> BBC News (2006) "Gazprom grabs Sakhalin gas stake" http://news.bbc.co.uk/2/hi/business/6201401.stm

<sup>&</sup>lt;sup>28</sup> Kramer, A., (2007) "Moscow Presses BP to Sell a Big Gas Field to Gazprom" http://www.nytimes.com/2007/06/23/business/worldbusiness/23gazprom.html? r=0

<sup>&</sup>lt;sup>29</sup> Eni (2007) "Eni and Gazprom sign the agreement for the South Stream Project" http://www.eni.com/en\_IT/company/eni-culture/special-initiative/gazprom/gazprom.shtml

#### 2. Gazprom's activities in Europe

#### 2.1 Gas pipelines to Europe

Currently there are several pipelines connecting Russia and Europe operated by gas giant – Gazprom. Recently built Nord Stream pipeline is of the most interest as the boom around this project was truly enormous. Nord Stream is an offshore natural gas pipeline from Vyborg in Russia to Greifswald in Germany. It is owned and operated by Nord Stream AG. The project, which was promoted by the government of Russia and conformed to by the government of Germany, was seen as controversial for many reasons, including once more, increasing dependence of European energy on Russia and feasible environmental damage.

OKOLLSNES NORWAY FINLAND O KARSTO VYBORG SWEDEN STOCKHOLM O O GOTHENBURG ESTONIA RUSSIA O AALBORG TORZHOK ESBJERG C LATVIA LITHUANIA KALININGRAD R U S S I A EMDEN **O** HAMBURG BELARUS SZCZECIN OBREMEN POLAND GERMANY BIALYSTOK O EEZ boundary Nord Stream gas pipeline - - Gas pipelines under design Territorial sea boundary

Image 1: The map of Nord Stream gas pipeline

Source: http://www.gazprom.ru/about/production/projects/pipelines/nord-stream/

The target markets are UK, Germany, Netherlands, France, Denmark, and other countries. The project includes two parallel lines. The first line of the pipeline was laid by May 2011 and was launched on 8 November 2011. The second line was built in 2011–2012 and was inaugurated on 8 October 2012. Many officials including Russian president Dmitry Medvedev and German Chancellor Angela Merkel attended the opening ceremony. An unfeigned joy on their faces represented the importance of the moment (see image 4).

At 1,224 kilometers in length, it is the longest sub-sea pipeline in the world<sup>30</sup>. According to Gazprom the new gas pipeline is extremely important for meeting the increasing need for natural gas in the European market. Gas imports to the EU are expected to increase in the coming decade by nearly 200 billion cubic meters or more than 50%. Nord Stream will

demand for imported gas via a direct connection between the world's largest gas reserves located in Russia and the European gas transportation system. In this regard, back in December 2000 the European Commission had appointed the Nord Stream project the Trans-European Network (TEN) status, which has been reconfirmed once again in 2006. This

be able to satisfy about 25% of this extra



Source: www.wikipedia.org

means that Nord Stream is a crucial project aimed at creating decisive cross-border transport output with a view to guarantee sustainability and energy security in Europe. In the light of the gas conflict with Ukraine, Gazprom ensured that there are no transit countries for Nord Stream. This is aimed to reduce Russian gas transmission costs and eliminates any possibility of political jeopardy. Nord Stream receives natural gas from the Unified Gas Supply System of Russia. The key resource base is the Yuzhno-Russkoye oil and gas field. The Nord Stream will also export gas from the Yamal Peninsula, Ob and Taz Bays and Shtokman fields. Now, in the plans of Gazprom, there is a construction of the third and fourth threads. Although, Germany has refused to extend gas imports from Russia, Great Britain may in the near future join the project<sup>31,32</sup>. From the latest news regarding Gazprom the next news stands out. A meeting between Alexander Medvedev, Deputy Chairman of the Gazprom Management Committee, and Jean-Francois Cirelli, Vice Chairman and President of GDF SUEZ took place on 21 June, 2013 as part of the St. Petersburg International Economic Forum 2013. Two parties addressed the status

<sup>30</sup> Reuters (2011) "Nord Stream to finish 1st gas pipeline Thursday" http://uk.reuters.com/article/2011/05/04/europe-gas-pipeline-idUKLDE7431M720110504

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<sup>&</sup>lt;sup>31</sup> Lenta.ru (2011) "Angela Merkel refuses to expand Nord Stream" http://lenta.ru/news/2011/07/19/pipeline/

<sup>&</sup>lt;sup>32</sup> Lenta.ru (2012) "Gazprom will build Nord Stream to Great Britain" <a href="http://lenta.ru/news/2012/06/29/touk/">http://lenta.ru/news/2012/06/29/touk/</a>

of collaboration in the gas sector, paying special attention to the Nord Stream project. As a result of these talks a document determining cooperation between the companies in exploring the opportunity of the Nord Stream gas pipeline expansion was signed.



Image 3: The map of Blue and South Stream pipelines

Source: http://www.gazprom.ru/about/production/projects/pipelines/south-stream/

South Stream - Russian-Italian-French-German gas pipeline project, which will run through the Black Sea from Anapa district to the Bulgarian port Varna. Next, it will go through the two branches to the Balkan Peninsula to Italy and Austria, although their exact routes have not yet been approved. Construction began in December 2012 and is scheduled to end in 2015. The planned capacity of South Stream - 63 billion cubic meters of gas per year. The estimated cost of the project - 16 billion euros. The South Stream project is aligned at strengthening the European energy security. It is another important step in pursuing the Gazprom's diversification strategy of Russian natural gas supply routes. The new gas pipeline system meeting the most recent engineering and environmental requirements is aimed to significantly improve the energy security throughout mainland Europe. The marine section of "South Stream" will run through the Black Sea from the compressor station "Russkoe" in the Russian coast to the Bulgarian coast. The total length of the Black Sea area is around 900 kilometres and a maximum depth - over two kilometres. There are several route options for "South Stream" through the Black Sea. At

the moment, the route passing through the exclusive economic zones of Russia, Turkey and Bulgaria is considered as the core one. Initially, the marine section of the project was planned to be divided equally between Gazprom and Eni, i.e. 50% of each company. However, since the end of 2009 the formal negotiations started with the French company EDF Group and in June 2010 it has joined the project with a share of 10%. It was assumed that Eni would give the French side 10% of its stake in the company engaged in the construction and operation of the pipeline. "Gazprom" insisted on keeping its 50% of shares. After the negotiations, the two sides declared the transfer to EDF up to 20% of shares in the project. In March 2011 it was reported that the German oil and gas company «Wintershall AG» is about to enter the project. Finally, in October 2011, in Amsterdam there has been a company registered - South Stream Transport, whose shareholders were "Gazprom" (a share of 50%), «Eni» (share 20%), «EDF Group» (share in 15%) and «Wintershall AG» (share 15%). In order to implement the European overland section of the project, Russia has signed intergovernmental agreements with Bulgaria, Serbia, Hungary, Greece, Slovenia, Austria and Croatia. The main route will pass successively through Bulgaria, Serbia, Hungary, Slovenia and Italy. Additional branches are planned to head to Croatia and Republika Srpska from the Federation of Bosnia and Herzegovina<sup>33</sup>. At the moment a gas pipeline direction to Greece was postponed due to various strategic, financial and economic reasons. As was mentioned above, "South Stream" project is created to diversify the supply of Russian natural gas to Europe and reduce the dependence of suppliers and importers from the transit countries, particularly Ukraine and Turkey. "South Stream" is a competitive project to the planned "Nabucco" pipeline, which is expected to run directly to Europe bypassing Russia on the south, and which is supported by the EU and the U.S. The expected share in Russian gas supplies to Europe will be 35%.

Blue Stream is a gas pipeline between Russia and Turkey, which runs under the Black Sea (see image 3). The Blue Stream is intended for direct gas deliveries to Turkey, bypassing transit countries. The 1,213-km-long gas pipeline consists of an overland and a submerged section, starting close to Izobilnoye in Stavropol Region, and ending in Ankara, Turkey. The offshore section of Blue Stream is unique in design and construction, the subsea pipe section is 393 km long. The construction was completed in December 2002, and in

<sup>&</sup>lt;sup>33</sup> Gazprom. (2008-2010), "Gas pipelines: South Stream project" http://www.gazprom.com/about/production/projects/pipelines/south-stream/

February 2003 the first commercial supply of gas started. July 2010 marked an important progress for "Blue Stream", while a volume of gas transited has reached a remarkable figure of 50 billion m<sup>3</sup>. Owning the world's largest pipelaying fleet and having a great expertise in submerged gas pipeline construction, Italian Eni acted as Gazprom's key partner in the Blue Stream construction. Operators of the "Blue Stream" pipeline are "Gazprom export" and Turkish Botaş. It is noteworthy that Blue Stream is capable of covering peak demand periods during cold winters or when Iran, which also supplies gas to Turkey, defaults its obligations. There are plans to continue the construction of a gas pipeline to Israel and Italy, as well as doubling the capacity - up to 32 billion m<sup>3</sup> per year<sup>34</sup>.



Image 4: The map of Yama-Europe gas pipeline

Source: http://www.gazprom.ru/about/production/projects/pipelines/yamal-evropa/

The Yamal–Europe natural gas pipeline is a 4,196 kilometers (2,607 mi) long pipeline connecting natural gas fields in Western Siberia and in the future on the Yamal peninsula, Russia, with Germany. The planning of the Yamal–Europe pipeline started in 1992. Intergovernmental agreements between Russia, Belarus and Poland were signed in 1993. In 1994, Wingas, the joint venture of Gazprom and Wintershall, a subsidiary of BASF,

<sup>&</sup>lt;sup>34</sup> Gazprom. "Gas pipelines: "Blue Stream" http://www.gazprom.com/about/production/projects/pipelines/blue-stream/

started building the German section of the pipeline. The first gas was delivered to Germany through the Belarus-Polish corridor in 1997. The Belarusian and Polish sections were completed in September 1999 and the pipeline reached its rated annual capacity of about 33 billion cubic meters of natural gas in 2005, after completion of all compressor stations. The pipeline includes around 3,000 kilometres (1,900 mi) in Russia, 575 kilometres (357 mi) in Belarus and 680 kilometres (420 mi) in Poland<sup>35</sup>. At the moment there is another project is planned which is aimed to increase transit capacity for the supply of gas to Poland, Slovakia and Hungary, to reduce the costs of transporting it, and eventually increase the volume of export of Russian gas to Central Europe. The project has a name Yamal-Europe 2<sup>36</sup>.

The "Brotherhood" pipeline (Urengoy-Pomary-Uzhgorod) is the largest gas transportation route. It can carry over 100 billion m³ of gas per year, transiting Ukraine and running to Slovakia, where it separates in two directions, one bringing gas to the consumers in Czech republic, Germany, France and Switzerland, and the other intended for Austria, Italy, Hungary and several countries of former Yugoslavia. Gas deliveries through this pipeline started in 1967³7. This pipeline has been a subject to the dispute between Gazprom and Ukraine. The case will be reviewed in part 3.

Regarding other routes there is gas transportation route through Romania, which carries Russian gas to this country, transiting Ukraine and Moldova, and runs further to the Balkan countries and Turkey. The pipeline construction began in 1986, and the second line was added in 2002<sup>38</sup>. Lastly, the consumers in Finland receive Russian gas through the gas transportation system in the Leningrad Region<sup>39</sup>.

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<sup>&</sup>lt;sup>35</sup> RIA Novosti (2007) "Russia drops second leg of gas pipeline via Belarus" http://en.rian.ru/russia/20071101/86223448.html

<sup>&</sup>lt;sup>36</sup> Gazprom. "Gas pipelines: "Yamal-Europe 2" http://www.gazprom.com/about/production/projects/pipelines/yamal-evropa-2/

<sup>&</sup>lt;sup>37</sup> <sup>38</sup> <sup>39</sup> Gazprom Export, "Transportation" <a href="http://www.gazpromexport.ru/en/projects/transportation/">http://www.gazpromexport.ru/en/projects/transportation/</a>

#### 2.2 UGS facilities in Europe

In order to enlarge the stability of gas supplies under export agreements, Gazprom uses underground gas storage facilities in Europe:

- Haidach UGS facility (Austria);
- UGS facility of Vitol (UK);
- Rehden and Katharina UGS facilities (Germany);
- Banatski Dvor UGS facility (Serbia);
- Incukalns UGS facility (Latvia);
- Pribugskoye, Osipovichskoye and Mozyrskoye UGS facilities (Belarus);

Any product must be somehow stored and gas is not an exception. UGS facilities substantially contribute to the reliability of gas supplies to consumers. They equalize daily gas consumption fluctuations and meet the peak demand during winter. UGS facilities are of particular value in Russia with its cold climate and huge distances between resources and consumers. Russia has the unique Unified Gas Supply System (UGSS), with the UGS system being the essential part of it. Underground storage facilities secure natural gas supplies to consumers regardless of a temperature, season, or force-majeure<sup>40</sup>.

production distribution transmission injection

Image 5: The stages of gas storage process

Source: http://www.gazprominfo.com/articles/gas-storage/

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<sup>&</sup>lt;sup>40</sup> Gazprom Informatorium, "How is gas stored and what are UGS facilities?" http://www.gazprominfo.com/articles/gas-storage/

Gazprom's Informatorium describes the process of gas storage as follows: Pumping gas is about injecting it in an artificial gas field using the parameters, specified by the process design. Gas is routed from a trunk gas pipeline to a site for removing solids, then to a gas metering station, and then to a compressor shop, where it is compressed and supplied to gas distribution stations (GDS) via headers. At a GDS, the general gas flow is divided in process lines, to which well loops are connected. Hook-up of process lines allows to measure productivity, temperature, and pressure of gas during an injection for each well<sup>41</sup>. Gas can also be stored in a liquefied state. However, this is the most expensive way of storing gas, but this option is applicable when it is impossible to build other storage facilities next to the large consumer zone.

Haidach gas storage is an underground natural gas storage in the town of Haidach near Salzburg, Austria. It is the second largest gas storage facility in Central Europe. It is operated by Austrian energy company EVN. In 1997, Rohöl-Aufsuchungs Aktiengesellschaft (RAG) discovered the Haidach gas reservoir holding a total gas in place of 4.3 billion m<sup>3</sup>. After depletion of the reservoir, it was planned to convert into gas storage. The contract for use of the Haidach reservoir as a storage for natural gas was signed between RAG, Wingas and Gazprom Export on 13 May 2005. Construction works started in 2005. The gas storage started officially operating on 24 May 2007.

Katharina UGS is the Joint Venture between Gazprom Export and Verbundnetz Gas. The gas storage is located in Germany near Bernburg. The project also involved the construction of 37-km long gas pipeline, connecting Katharina to the JAGAL gas trunkline and therefore to the trans-European gas transportation system. The Katharina project was named after Catherine II, Empress of Russia, born as Princess of Anhalt-Zerbst<sup>42</sup>.

From 2006 to 2011 Gazprom's European gas storage capacity rose from 1.4 to 3.01 billion cubic meters, and the daily deliverability increased from 18.2 to 35.7 million cubic meters.

<sup>41</sup> Gazprom Informatorium, "How is gas stored and what are UGS facilities?" http://www.gazprominfo.com/articles/gas-storage/

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<sup>&</sup>lt;sup>42</sup> Gazprom Export (2011) "Katharina UGS facility launched in Germany" http://www.gazpromexport.ru/en/presscenter/news/325/

Gazprom is planning to increase its European gas storage capacity and bring it to over 5 billion cubic meters by 2015<sup>43</sup>. The Bergermeer UGS facility is under construction in the Netherlands. Gazprom made a commitment to supply cushion gas for the storage in exchange for the access to 1.9 billion cubic meters of its working gas volume. The UGS commissioning is scheduled for 2014. Moreover, Gazprom Group is performing the feasibility study of its possible participation in joint projects in the UK (Saltfleetby), France, Romania, Belgium, Slovakia, Greece, Hungary and Turkey.

On 20th of March 2013 in Prague, Deputy Chairman of the Management Board of "Gazprom" Alexander Medvedev and Chairman of the Board of Directors of the MND Group Karel Komarek signed an agreement to build a new UGS in Damborice, South Moravia<sup>44</sup>.

For the map of current and prospective UGS facilities of Gazprom in Russia and Europe and their features see Appendix.

The largest counterparties of "Gazprom" in Western Europe are companies such as E.ON Ruhrgas, Wingas, WIEH (Germany), ENI (Italy), Botas (Turkey), PGNiG (Poland), GDF SUEZ (France), Panrusgas (Hungary), RWE Transgas (Czech Republic), SPP (Slovakia), EconGas (Austria) and GasTerra (Netherlands).

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<sup>&</sup>lt;sup>43</sup> Gazprom (2012) "Gas Export and Enhancing Reliability of Supply to Europe" http://www.gazprom.com/f/posts/76/899346/2012-06-20-presentation-en.pdf

<sup>&</sup>lt;sup>44</sup> Gazprom (2013) "Gazprom and MND group started to build new UGS in Czech Republic" http://www.gazprom.ru/press/news/2013/march/article158387/

#### 3. Energy Security

Energy security has recently become the focus of discussions at various levels. However, despite its economic and political importance, this topic is in most cases seems rather amorphous and requires a specification and conceptualization.

At present, many official documents and researches, when it comes to the basic subjects of World Energy, speak about the producers and consumers of natural gas. It would be more correct to speak of countries - net importers of natural gas, net-exporting and transit countries. With the world's largest combined reserves of natural gas and oil and being their essential consumer, producer and transit country, Russia is involved in all-important processes taking place in the global energy sector.

# 3.1 The essence of energy security as an important element of economic security

First it is essential to figure out what are the concepts such as "national security" and "economic security." In the literature, the term "security" refers to the condition under which someone or something is in a position of a reliable protection. When it comes to the country or the society, the concept of "national security" is commonly used.

For instance, Russia is a multi-ethnic country, which includes dozens of nationalities, which have their own statehood, and even their own Security Councils dealing with national security. The concept of "national security" reflects the level of security of all people and nations of Russia. The main objects of protection are an individual, society and the state. The message of the President to the Federal Assembly of the Russian Federation "On national security," stressed that: "national security is understood as a condition of protection of national interests against internal and external threats, providing the progressive development of the individual, society and state" 45.

<sup>&</sup>lt;sup>45</sup> United Nations. Country Profile – Russian Federation <a href="http://www.un.org/esa/earthsummit/rusia-cp.htm">http://www.un.org/esa/earthsummit/rusia-cp.htm</a>

In order to simplify the specification of various types of risks they are divided into internal and external. Internal risk to society and the state are generated by the actions of various radical, national, ethnic groups, strata, political parties and movements aimed at changing the constitutional order, undermining or weakening economic foundations, political stability, national defence and state.

External threats and dangers can be generated by the actions of unfriendly or hostile forces outside the country. As these forces are usually the state, groups of states, various exiles, the separatist organization, existing in their territories and are often ruled by special services. In addition to these forces, the threat may come from the policies and actions of the ruling elites and the public authorities of foreign countries with the aim of undermining, weakening economic power to achieve unilateral concessions, seizure of natural resources, changes in the political system, etc.

The impact of internal and external dangers and threats to the national security of the country usually varies depending on prevailing internal and external environment. In the structure of the national security Economic security takes special place. This is due to the fact that all kinds of security anyway cannot be sufficiently achieved without economic security. The collapse of the USSR has shown that strong military and high-tech defence industry is not enough for secure existence, there are many other essential terms such as well-developed sector of consumer goods and services, competitiveness in the global markets, well-oiled mechanism of economic management, etc. Energy security, as it is understood in the West, is the competition for limited resources. However, for global energy security it is better to cooperate than to compete.

The 2006 G8 summit in St. Petersburg showed: Russia quickly recovers its position of a great power. It does it, by preferring to deal with real things. Russia as the host of the summit set following topics for discussions - energy security, education and the fight against infectious diseases – it was said that Russia was afraid to stress global issues, but the delegations of developed countries, which were mired in internal political and economic problems were quite satisfied with "first practical Summit" in recent years. Italian Prime Minister Romano Prodi even noted his personal worry, saying that "winter is

coming and gas storages in Ukraine are empty" and he's just afraid to freeze<sup>46</sup>. The topic of energy security has acquired new meaning. For the first time raised the issue of security, not only for consumers but also producers. Before the summit, no one wondered that, because the world is clearly divided into two parts - developed consumer countries and underdeveloped countries-suppliers. Rich importers would have guaranteed delivery, and they were simply not interested in the risks of suppliers. Russia, as one of the largest exporters of energy got into the club of the major developed countries, for the first time explained to the audience that energy suppliers also require guarantees. Most important achievement of Russia at the summit was that: the country has clearly demonstrated to the West that it is able to speak on equal terms with them and defend their political and economic interests<sup>47</sup>.

However, in the Western press, there were those who were able to evaluate the practical significance of the summit. According to British magazine Spectator (2009), "it was the first of the G8 summit last ten years, which had a real, not a fictional topic for discussion." Obviously, in the three days of the summit the issue of energy security of the world economy cannot be resolved. Moreover the concept of "energy security" in different countries varies considerably. In the West, under the concept of "energy security" implies a system that has developed over 30 years ago, in which these countries are major consumers of energy resources. But the rapid growth of emerging economies breaks down that old, established system. Many in the West believe that participation of energy-rich Russia would preserve the system. In order to prevent conflicts over energy resources more efficiently it is necessary to develop clear rules of universal cooperation.

"The wave of nationalization of the oil industry in the developing countries - exporters of oil in the early 1960s has led to a breakdown of the old system. But the formation of the new system, which survived until the beginning of the XXI century, it took another 10-15 years. That was a painful break-up, and today the world still facing great challenges," -

<sup>&</sup>lt;sup>46</sup> Exper Magazine (2006) "Forgetting Rambouillet" http://expert.ru/expert/2006/28/sammit\_bolshoy\_vosmerki/

<sup>&</sup>lt;sup>47</sup> G8 Saint-Petersburg Russia (2006) http://en.g8russia.ru

says Valérie Marcel an Associate Fellow of the Energy Program at the Royal Institute of International Affairs (Chatham House) in London<sup>48</sup>.

After the nationalization of the oil industry producing countries have created OPEC and used it to form a new system. They have dramatically increased the price of oil, temporarily reducing supplies to the world market, and began actively influence the global energy economy. The reaction to the "oil shock" in 1973 was the creation of a coalition of developed countries, whose leaders met in the French town of Rambouillet – this is how the "group of seven" was established. As a counterweight to OPEC developed countries – the major oil and gas importers have created the International Energy Agency, through which they coordinated the strategic reserves of oil and gas. At the same time, in the mid-70s, Western European countries have become major importers of oil and gas from the Soviet Union.

#### 3.2 Main principles of energy security

It should be noted that despite different approaches of the leading countries, there are some certain similarities in the understanding of energy security. In fact, it is possible to identify the basic principles, which are to some extent shared by all states.

First, energy security - is the mutual responsibility of the consumer and the supplier of energy resources. All recognizes it, but the problems start where the consumer and the supplier begin to demand from each other assurance of supplies or payment for these supplies. For example, in a moderate version, the requirement of supply security can lead to the consumer's request to allow the company representing his economic interests an access to the development and transportation of energy resources in the provider country. This is the requirement of the EU to Russia, to which, as noted, it responds by requesting the same requirements of access to the systems of direct allocation of resources to the end user. In other words, it demands the openness of the economic borders. In the most radical version, the guarantee of supplies can be expressed in a direct political and economic dictatorship over the supplying country, up to carrying out complete military operations against it.

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<sup>&</sup>lt;sup>48</sup> Exper Magazine (2006) "Forgetting Rambuye" <a href="http://expert.ru/expert/2006/28/sammit\_bolshoy\_vosmerki/">http://expert.ru/expert/2006/28/sammit\_bolshoy\_vosmerki/</a>

However, there is a third option presented by the Asian countries. It is the willingness to guarantee delivery, on the one hand, by the participation of companies representing the economic interests of consumers in the development of energy resources in the supplying country, on the other hand - playing by the rules of the provider country and investing heavily in infrastructure, mining and transportation. In this case, it is not a simple commodity-payment, but a more complex scheme of investment, insurance and other contractual relations. Consumer secures supply through investments in the infrastructure of the provider, thereby also optimizing the supply chain, making it more modern, less expensive, etc., and the supplier, allowing the importer access to projects on its territory receives not only secure and stable market but also a strategic investor. Thus, it is a principle of responsibility and interdependence of importer and exporter.

Further, despite of the limited number of the suppliers of energy resources, there is competition between them; moreover, the limited number of these suppliers tightens the competition even more. And the factor that stimulates this competition is the consent of consumers around one more principle of energy security, which they formulate as the supply diversification. At the same time, it should be noted that this principle applies to the supplying countries as well. In fact, at this point in the international community there is an understanding that the hydrocarbon resources will be depleted some day in the future. Accordingly, the supplying countries, as well as all the others, will gradually come to the need for alternative energy sources.

However, at the moment there is a competition between suppliers of energy resources, and it must be considered together with the system of global energy security. The most important prerequisite for this is a de-politicization of energy security. In fact, competition, based on economic principles, the competition for customers is a logical and understandable phenomenon. However, any use of energy resources for political purposes in the current situation can lead to the development of conflicts, consequences of which can be hardly predicted.

Thus, the principles of energy security are also de-politicization and fair competition. In this case, if you can imagine the competition between suppliers, it is much more serious phenomenon - the competition between consumers. In fact, given the fact that energy - a

necessary condition for economic growth, this competition should not be present. Moreover, given that a third of the world's population does not have access to energy resources, global social dimension of energy security becomes obvious.

Energy security should mean not only the prevention of conflicts over energy resources between suppliers and consumers, but also extension of access to these resources. So, we can distinguish two more principle of energy security: the globalism and social orientation. In general, these principles are as follows:

- · Responsibility of interdependence
- · Diversification of supply sources and energy
- · De-politicization
- · Fair competition
- · Globalism
- · Social orientation

#### 3.3 Energy Security issues in relations between Russia and EU

Russian-EU dialogue concerning energy issues began at Paris summit in October 2000, although the idea of our country's integration into the European economic and social space has been included in the EU's Common Strategy on Russia on June 4, 1999. These steps were followed by the Partnership and Cooperation Agreement, which entered into force in December 1997, but did not bring significant results. In May 2001 and May 2002, the Deputy Prime Minister of Russia Viktor Khristenko and the head of the European Commission's Directorate-General for Energy and Transport Francois Lamoureux prepared two "synthesis reports". The main objectives of the EU in this dialogue were: the stability of the energy supply under severe environmental requirements and increase of the competitiveness of European industry.

In the coming years, in close proximity to Russia there will be a single market formed, potentially including 30 countries. (Hereinafter, the data is based on the 30 countries of the future EU) This array with more that 500 million people (about 7,5% of the world population in 2012) and 22 per cent share of world GDP (purchasing power parity in 2012) imports the major part of Russian energy exports. There was a situation when such important energy supplies were coming from the European country, but were not regulated by European rules. And if, for example, oil and gas from Africa and from Middle East can

be perceived by the EU as imports from distant sources, the proximity of Russia allows the EU to take a look at the problem from the angle of the potential integration. In the past decade, Russia's reintegration into the global economy in the decay of the "socialist camp" was accompanied by a significant shock elimination of the vast number of markets of manufacturing industry. On the world's markets of heavy machine engineering country has maintained a competitive position only in a field of armaments, and in some specific niches.

Bridging the transition crisis, financing for development and maintaining a positive balance of trade in Russia today is provided through a small set of energy-intensive and energy products. The integration into the European Economic Area (EEA) through energy is important for Russia as a way to accelerate the development, modernization, and - ultimately - to reduce the role of the relative energy exports in the national economy.

In the 1990s, a stable model of trade relations between Russia and Europe was formed. There are two groups of products dominating in Russian export: energy (mainly oil and gas), as well as energy-intensive goods such as metals and chemical products. By the beginning of the XXI century Russia and Europe were more attached to each other economically than ever before in history. Energy exports for the first time acquired such a serious role in the economy of the continent, and this role will likely be increasing in the long term. At the same time due to the extremely high proportion of oil and natural gas in exports (58%), there is new form of dependency for Russia. The expected growth in energy demand in Europe over the next 20 years requires investment by the companies that (regardless of country accessory) will have to sell energy in the EU, and to extract them out of it. The more similar the conditions of the investment climate, the lower the costs of business development, as worries European Commission. The specifics of multi-billion investments in the production and delivery of high-mass energy to the distance calculated in thousands of kilometres, requires the consideration of political factors, business risks, the duration of construction works, the competition between companies as well as between the countries, whose welfare depends on energy exports.

It is hard to understand the nature of the dialogue with Europe without taking into account the objective tendencies of demand for different types of energy in the future enlarged Europe. In the last 25 years Europe is shifting rapidly from the consumption of traditional fuels, especially coal and oil to natural gas and partially nuclear energy. Compared to 1973, the last year of cheap oil, in 2007 the share of coal fell from 25% to 14%, oil - from 60% to 42%, the share of natural gas increased from 10.5% to 23%, and Nuclear energy - from 1,5% to over 15% (the rest is composed of hydropower, and so on). In the 1990s, for environmental reasons, as well as due to the requirements to efficiency, there was a dramatic trend towards more intensive replacement of coal by natural gas.

Within the enlarged Europe, only Britain, the Netherlands and Norway have more or less significant influence in the energy sector. In the Netherlands, the peak of gas production has already passed. The UK, remaining the exporter of oil, has slowly moved from almost gas-sufficient to the net consumer with 40% gas import in 2010. In Norway, oil production is stabilized, although there are prospects for growth in gas production.

Table 1: Forecast for gas demand in Europe, billion m3

	2010	2020
EU-30	600-720	700-900
Production in the EU-30	300	250-310
Imports into the EU-30	300-420	450-590

Source: www.oildrum.com

While the world's natural gas consumption over the last decade has increased by 20%, in Europe the increase is almost 40%. However, European countries make efforts to develop its own renewable resources (wind, biomass, solar energy). However, in the foreseeable future, the use of renewable energy sources will hardly solve the energy problem. There are emerging theories of growth at stable, non-increasing amounts of energy. France and Germany have made strides in this direction, however the growth pace remained low, at the same time the share of gas has been increased. Therefore the increase in demand for Russian gas can be expected even in the context of overall stable energy consumption.

The possible solutions of basic problems of the EU energy sector - improving the competitiveness of EU products, and minimizing the negative impact on the environment - Europe sees an increase in the share of gas in the energy mix. This implies a shift to the imported resources: by 2020 60% to 70% of Europe's gas consumption will be ensured by imports. And one of the main sources will be import from Russia and the CIS.

Seeing the huge EU's dependence on Russian energy supplies it is hard to ignore the problematic situation with Ukraine in late 2008 early 2009, which led to the energy shortage in several European countries. First it is necessary to clarify that the delivery of the majority of Russian gas to the EU were carried through the territory of Ukraine, and that has become a case for big dispute.

#### 3.4 Russian – Ukraine gas disputes.

#### 3.4.1 Background to the conflict

In the 1990s, the gas pipeline through the territory of Ukraine was the only way from Russia to Western Europe. Company "Naftogaz of Ukraine", providing the transit of Russian gas through Ukrainian territory, has accumulated a considerable debt to "Gazprom" and engaged in unauthorized withdrawals of Russian gas. In order to get rid of transit dependence on Ukraine, Gazprom began the construction of Yamal - Europe gas pipeline, bypassing Ukraine - through Belarus and Poland. It was launched in late 1999.

After the launch of the first Yamal – Europe branch, gas war between Russia and Ukraine ceased. In 1999-2001 Ukraine supplied to Russia on account of debts for natural gas strategic bombers Tu-160 and cruise missiles X-55 remaining after the division of the Soviet military arsenal in Ukraine. In turn Russia wrote off \$285 million out of 1 billion debt for Russian gas supplied<sup>49</sup>.

The official cause of the conflict was the absence of a contract for the supply of gas to Ukraine in 2009 and Ukraine's debt for gas in 2008. On 11 December 2008 the amount of debt was 2.4 billion dollars. Taking into account December's supplies "Naftogaz" was to pay until the end of the year slightly more than 3 billion. According to Vladimir Putin, Ukrainian side deliberately dragging out the negotiations until December in order to jeopardy gas supplies to Europe and bargain for themselves preferential price (before the conflict price of gas for Ukraine was \$180 per 1000m<sup>3</sup>, and \$418 after).

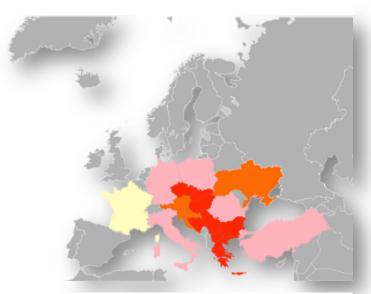
<sup>&</sup>lt;sup>49</sup> Sharp Resources (2013) "Political News in Russia and Ukraine" <a href="http://sharp-resources.com/vneshneekonomicheskaya-politika-ukrainy/">http://sharp-resources.com/vneshneekonomicheskaya-politika-ukrainy/</a>

The term of the contract of gas supply to Ukraine expired on January 1 at 10:00. As a result, immediately after the expiration of the contract the supply of gas to Ukraine ceased and from 5<sup>th</sup> of January decreased the supply for European consumers. On January 7, the transit of Russian gas through Ukraine was stopped completely. After reaching agreement on price and signing the relevant contracts in Moscow on 19 January, on 20<sup>th</sup> January gas supply to Ukraine and its transit to Europe resumed<sup>50</sup>. It is also worth noting that this conflict has been followed by gas disputes between Russia and Ukraine in 2005-2006, as well as in 2007-2008.

The incident resulted in a decline of gas transit through Ukraine to Europe. Countries that received less gas due to reduction of the supply of Russian gas through Ukraine as of January 6, 2009:

- Austria 90%
- Bosnia and Herzegovina 100%
- Bulgaria 100%
- Hungary 100%
- Germany 100% of deliveries
   via Ukraine stopped, but
   switched to gas pipeline through
   Belarus
- Greece 100%
- Italy 90%
- Republic of Macedonia 100%
- Moldova 100% from January 7
- Poland 90% off through
   Ukraine, but switched to gas
   pipeline through Belarus

Image 6: Countries affected by gas dispute



\*Red: gas supplies via Ukraine stopped completely or significantly;

\*Pink: partially suffered countries (as of January 6, 2009)

Source: www.theoildrum.com/node/3283

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<sup>•</sup> Romania - 75%, 100% from 7 January, 65% of gas consumption in Romania was covered by its own production

<sup>&</sup>lt;sup>50</sup> RIA Novosti (2009) "Gazprom will sell gas to Ukraine for the market price - \$418" http://ria.ru/economy/20090101/158483096.html

- Serbia 100%
- Slovakia 7

0%, 100% from January 7

- Slovenia 90%, 100% from January 7
- Turkey 100% of deliveries via Ukraine stopped, but switched to importing gas pipeline under the Black Sea
- France 70%
- Czech Republic 75%
- Croatia 100%<sup>51</sup>

### 3.4.2 The consequences of the conflict

As a result of the conflict by the 11<sup>th</sup> January 2009 financial loss of "Gazprom" amounted to about \$800 million; due to undelivered gas to Serbia and Bulgaria from 7<sup>th</sup> - 8<sup>th</sup> January there were stoppages in some factories, which were using gas as a part of its production workflow. The direct damage to Bulgarian companies by 11<sup>th</sup> of January totalled to about 30 million euros. The critical situation in these countries occurred with the heating of housing and social services, thus in the Serbian city of Novi Sad on 8th January due to lack of gas third of the city's heating system was turned off<sup>52</sup>.

According to the German magazine «Financial Times Deutschland» by 19<sup>th</sup> of January gas reserves from 46 storage facilities in Germany in case of further reduction of gas supply would have amounted to less than 50%. This relatively small amount of gas Germany usually possessed only by early spring, when its consumption was much lower. The reduction of the reserves were as follows: before the conflict - 82% of the maximum volume, in the first week after the start of the conflict - 69% by 12<sup>th</sup> of January - 59%<sup>53</sup>.

<sup>&</sup>lt;sup>51</sup> Reuters (2009) "FACTBOX: Countries affected by Russia-Ukraine gas row" <a href="http://www.reuters.com/article/2009/01/06/us-russia-ukraine-gas-sb-idUSTRE50531Q20090106?pageNumber=1&virtualBrandChannel=0">http://www.reuters.com/article/2009/01/06/us-russia-ukraine-gas-sb-idUSTRE50531Q20090106?pageNumber=1&virtualBrandChannel=0</a>

<sup>&</sup>lt;sup>52</sup> Moscow IT-Kernel (2009) "Gas war – reputation is lost, what next?" http://www.iamik.ru/?op=full&what=content&ident=500840

<sup>&</sup>lt;sup>53</sup> Tagesschau.de (2009) "Der Gasprinz ist da" <a href="http://www.tagesschau.de/wirtschaft/gasstreit194.html">http://www.tagesschau.de/wirtschaft/gasstreit194.html</a>

The problems with the transit of Russian gas through Ukraine have intensified the debate on the diversification of gas supplies to Europe. All versions of the gas supply considered by European countries, planned to bypass the Ukrainian territory, which may partially or completely deprive Ukraine the status of a transit country. Russian officials have reiterated that, to ensure the smooth flow of Russian gas supplies to Europe, Russia is building pipelines North Stream and South Stream, which will enable European consumers to receive gas directly, bypassing Ukraine. Several European countries have once again talked about the need for early implementation of the plan to build the Nabucco pipeline, which was to provide Europe with gas from Central Asia, again bypassing the territory of Ukraine as well as Russia. However, the North Stream pipeline is already functioning, while the Nabucco's project has been postponed to 2018.

### 3.4.3 The results of the conflict:

In January 2009 Russian media stated that the main outcome of the conference held in Moscow and the Russian-Ukrainian negotiations on gas issue - an agreement to transfer the gas trade from January 2009 between Russia and Ukraine to the European formula of price calculation and prompt resumption of Russian gas transit to European consumers. It has been reported that in 2009 the Ukrainian side will receive a discount of 20 per cent, for Russia the tariff for transit will also be reduced to the rate of 2008. It was noted that another important result of the agreements - the conclusion of direct contracts between "Gazprom" and "Naftogaz" of Ukraine (without intermediary RosUkrEnergo)<sup>54</sup>.

However, the principle of de-politicization in the concept of energy security doesn't function, as we would like it to. On 11 October 2011, a Ukrainian court sentenced Ex-Prime Minister of Ukraine Yulia Tymoshenko to seven years in prison after she was found guilty of abuse of office when brokering the 2009 gas deal with Russia. The European Union and other international organizations see the conviction as "justice being applied selectively under political motivation". During 2005-2010, Tymoshenko has repeatedly spoken out against above-mentioned company "RosUkrEnergo" which was consistently

<sup>&</sup>lt;sup>54</sup> Pavlogradskie Novosti (2009) "Gazprom and Naftogaz left Rosukrenergo out of business" http://pavlonews.info/news/categ 33/23686.html

defended by that time President of Ukraine Yushchenko. Nevertheless, the company "RosUkrEnergo", despite the lack of transparency in its operations, yet provided the supply to Ukraine cheap gas from Turkmenistan, which can partially replace expensive gas from "Gazprom". Tymoshenko, in turn, has made the removal of "RosUkrEnergo" from gas suply, which led to the monopolization of the Ukrainian gas market by "Gazprom", which has led to sharp rise in gas prices (the price of gas for Ukraine was higher than the price for the European countries, for Ukraine it is therefore more advantageous to buy imported Russian gas from Hungary and Poland, from German company RWE and reverse it into the territory of Ukraine<sup>55</sup>). In addition, due to the contract with the Russian monopoly Ukraine is obliged to buy gas in excess of its requirements, and put strict financial penalties for arrears. Current Ukrainian authorities consider this gas contract, "bonded" for Ukraine, and Yulia Tymoshenko herself was sentenced to seven years in prison for forcing "Naftogaz" to his sign this contract<sup>56</sup>.

In January 2009 Deputy Chairman of Gazprom Alexander Medvedev at a press conference in Moscow stated that: "Gazprom subsidiary "Gazprom Sbyt Ukraine" will receive up to 25% of the Ukrainian market, which is, according to him, part of the agreement between Gazprom and Naftogaz". 57

The gas crisis has forced Europe to think of diversification of fuel supply. Someone has remembered nuclear energy, someone brought a proposal to import African gas, but two main alternatives were considered: to build a new gas pipeline from Russia bypassing Eastern Europe, or even to abandon Russian gas. Suspension of gas supplies to Europe has forced the EU to seek alternatives. Some steps have been taken already: Germany's biggest gas company E.ON Ruhrgas provided additional supplies to South-East Europe - Croatia, Bosnia and Herzegovina, Croatia, Hungary, Serbia and Slovakia. Along with Russia,

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<sup>55</sup>LB.UA (2013) "Minenergo and RWE consider the reverse gas supplies legal" <a href="http://economics.lb.ua/state/2013/04/25/197990\_minenergo\_rwe\_schitayut\_zakonnimi.html?utm\_source=lbuakutm\_medium=link&utm\_campaign=mainfeed">http://economics.lb.ua/state/2013/04/25/197990\_minenergo\_rwe\_schitayut\_zakonnimi.html?utm\_source=lbuakutm\_medium=link&utm\_campaign=mainfeed</a>

<sup>&</sup>lt;sup>56</sup> Glavred. "Ukraine does not intend to buy "bonded" volumes of gas – Azarov" http://glavred.info/archive/2012/01/17/122149-16.html

<sup>&</sup>lt;sup>57</sup> Gorodskoy Dozor (2009) "Gazprom Sbyt Ukraine" will receive 25% of the gas market" http://dozor.kharkov.ua/1000981/dengi/1031449.html

which accounted for 26% of gas supply, E.ON Ruhrgas received gas from Norway and the Netherlands. Nevertheless, E.ON Ruhrgas nowadays is one of the largest Gazprom clients.

Bulgaria as the most affected country by the termination of Russian gas transit turned to Turkey and Greece. Bulgarian Economy Minister Petar Dimitrov said: "Greece is really ready to help by providing their northern neighbours, a certain amount of liquefied gas. If necessary, the Balkan gas pipeline system can deliver daily to Bulgaria 2 million cubic meters of gas". Also the negotiations with Algeria intensified, which has already announced its readiness to export liquefied natural gas to Germany by tankers. In the future, they said, an additional line "Medgaz" on the bottom of the Strait of Gibraltar can be built<sup>58</sup>. Today, Medgaz pipeline is connecting Algeria and Spain along with other pipelines from Africa to Europe (see Image 2).

"Nezavisimaya Gazeta" on 21st of January 2009 published the opinions of experts that even at the end of the conflict between Moscow and Kiev there are many unresolved issues remained and that "there is no guarantee that the current gas war will be the last and the next 10 years, Europe will not be once again faced with overlapping lines and underdelivery of fuel" 59.

In January 2009 journalist Matvei Ganapolsky suggested that the leaders of the two powers have artificially unleashed the gas conflict to remove from transit schemes an intermediary - "RosUkrEnergo". (RusUkrEnergo is the company that resell natural gas on the territory of Ukraine and Eastern and Central Europe)<sup>60</sup>.

There was also a view that the initiators of the gas dispute between Russia and Ukraine were the United States. The official newspaper of the Russian Defence Ministry newspaper "Red Star" assumed this. "Probably, the United States set out for themselves the role of valve in the way of Russian gas to Europe and tried to make it clear to Berlin, Paris, Rome

<sup>&</sup>lt;sup>58</sup> Newsland (2009) "Europe wants to refuse Russian gas" http://newsland.com/news/detail/id/332342/

<sup>&</sup>lt;sup>59</sup> Nezavisimaya Gazeta (2009) "Moscow and Kyiv share the win in gas battle" http://www.ng.ru/economics/2009-01-21/1\_gaz\_war.html

<sup>&</sup>lt;sup>60</sup> Ganapolsky, A., (2009) "Unbelievable, but a farce" <a href="http://www.ej.ru/?a=note&id=8761#">http://www.ej.ru/?a=note&id=8761#</a>

and others that intra European case without consultation of Washington will never be resolved. In addition, the White House is known as the principal lobbyist for the construction of gas pipeline "Nabucco" (it should be noted that this is the main competitor of Russian South Stream gas pipeline) and the Trans-Caspian pipeline which imply the exclusion of Russia not only as a supplier of hydrocarbons, but also exclusion as a transit country. So the U.S. and others like them are using the Russian-Ukrainian conflict for the "penetration" of alternative routes against Russian pipeline projects," - said the publication<sup>61</sup>.

The EU was well aware that the gas war between Russia and Ukraine could be repeated and the victim of this war will be none other than Europe itself, therefore it has actively considered possible ways of diversifying gas supplies.

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<sup>&</sup>lt;sup>61</sup> Edinoe Otechestvo (2013) "Media continues to write about "the hand of Washington" in the gas conflict between Ukraine and Russia" <a href="http://www.otechestvo.org.ua/main/20091/1526.htm">http://www.otechestvo.org.ua/main/20091/1526.htm</a>

### 4. The European commission vs. Gazprom

On 4 September 2012, the European Commission antitrust branch opened a case against Russian Gazprom for allegedly violating European Union competition rules. The initiative is the consequence of a long and complex energy relationship between the EU and Russia.

There are few publications dedicated to this case. One of them is the work of Sartori N. "The European Commission vs. Gazprom: An Issue of Fair Competitionor a Foreign Policy Quarrel?" (2013). The paper is trying to describe the motivation and the nature of the EC – Gazprom clash both from EU and Russian perspective. So, from EU perspective the case is just the formal action aimed to ensure that Gazprom follows EU competition laws and does not hinder the process of liberalization of energy markets. The liberalization process initiated in 1990s was directed to the creation of integrated and competitive market in terms of energy security, in other words, secured supplies and competitive prices for EU consumers.

Joaquín Almunia, the Vice President and Commissioner for Competition of EC during his speech on International Competition forum in Warsaw on 27 September 2012 emphasized that the Commission is not investigating Gazprom for any political reason, but simply because they wanted to make sure that Gazprom has not abused its dominant position in upstream gas supply markets?<sup>62</sup> In other words, the case should be seen as a solely technical - bureaucratic procedure completely dependent on the Commission's mandate to provide fair competition in the EU. That mandate is one of features that define the Commission, which has a power to monitor as well as to enforce compliance with EU competition laws. It is noteworthy that other big global players as Microsoft, Intel and General Electric have already experienced the iron fist of the Commission.

By contrast, according to Sartori: "Russia sees the antitrust move as a political "attempt [...] to pressure Gazprom and influence prices and the result of commercial negotiations". The EC investigation can hardly be taken light-heartedly by Russia's political elite, since Gazprom is a state-controlled firm in which top Russian officials have a stake and which

<sup>&</sup>lt;sup>62</sup> European Commission, (2012). "Speech of Joaquin Almunia, 27 September 2012". (http://europa.eu/rapid/press-release SPEECH-12-653 en.htm

plays a significant role in the country's foreign policy. Russia's leaders themselves openly acknowledge that energy - which contributes to around half of Russia's federal budget - is a critical asset both domestically and on the international stage. On the home front, energy-originated money is spent on welfare programmes that Russia's government considers essential in ensuring social stability, while internationally Russia's huge resources contribute to securing its role as a leading global player."

Vladimir Putin himself highlighted the importance of energy for todays Russia. In his 1999 doctoral dissertation referred to Russia's oil and gas industry as a means to strengthen Russia's hand on the international stage. As have been already mentioned the Russian government has tried to enforce this principle by taking over control of the energy sector with the establishment of national champions. As Alexander Medvedev, Director General of Gazpromexport, once stated: "as the Russian state owns 50.02 percent of Gazprom Group, it is hardly surprising that the majority shareholder takes an interest in the company's operations". It should really not be a surprise then that Moscow sees the EC investigation as a political attempt to curb Russia's interests in Europe, rather than a due procedure against a potential violator of technical regulations.

### 4.1 Anticompetitive Practices pointed out by the Commission

Gazprom is not the only company that fell under the sight of the EC. At the end of September 2011, EU antitrust officials made unannounced inspections of the premises of energy companies in ten Central and Eastern European member states. Eleven companies confirmed to have been subject to controls, including Gazprom-controlled Gazprom Germania in Berlin and Vemex in Prague. Other energy companies involved in the investigations are RWE AG and E.ON Ruhrgas in Essen, RWE Transgaz in Prague, E.ON Magyarország in Budapest, OMV and Econgas in Vienna, PGNiG in Warsaw,

<sup>&</sup>lt;sup>63</sup> Olcott, M., B., (2004). "Vladimir Putin and the Geopolitics of Oil". http://bakerinstitute.org/publications/vladimir-putin-and-the-geopolitics-of-oil

<sup>&</sup>lt;sup>64</sup> Alexander Medvedev, (2008). "Is Gazprom's strategy political?" http://www.europesworld.org/portals/0/PDF\_version/EW9\_FINAL\_ENG.pdf.

LietvosDujos in Vilnius, and SPP in Bratislava. <sup>65</sup> The actions were aimed to verify whether these companies had engaged in anticompetitive practices that break EU antitrust rules or whether they had any information concerning such practices.

One year after the Commission initiated the proceedings against Gazprom. The Commission states that explored information during the inspections in other energy companies are pointing to three potentially anticompetitive practices that are in breach of Art.102 of the Treaty on the Functioning of the European Union (TFEU): market partitioning, barriers to supply diversification, and unfair pricing.<sup>66</sup> The initiation doesn't mean that such practices took place but is aimed to further investigation.

### 4.1.1 Market partitioning

As Sartori describes in his work, Gazprom is suspected of having hindered the free flow of gas across EU countries by introducing "destination clauses" in its supply contracts. Such terms that are prohibiting a buyer from re-selling purchased gas to third customers in different countries - have the potential to divide (or "partition") the EU single market into separate national sub-markets. Moreover, this is not the first time that the EC has pointed to such issue. During the negotiation in the framework of the EU-Russia Energy Dialogue in 2003 the Commission reached a settlement with two energy companies – Russian Gazprom and Italian ENI, which agreed to eliminate a number of clauses that could

<sup>&</sup>lt;sup>65</sup> European Commission, (2007). "Antitrust: Commission initiates proceedings against RWE Group concerning suspected foreclosure of German gas supply markets" <a href="http://europa.eu/rapid/press-release\_MEMO-07-186\_en.htm">http://europa.eu/rapid/press-release\_MEMO-07-186\_en.htm</a>

<sup>&</sup>lt;sup>66</sup> According to Art.102 of the Treaty on the Functioning of the European Union (TFEU), "Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States. Such abuse may, in particular, consist in: (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions; (b) limiting production, markets or technical development to the prejudice of consumers; (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; (d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts." See TFEU, http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:115:0047:0199:en:PDF.

<sup>&</sup>lt;sup>67</sup> Jonathan P. Stern, *The Future of Russian Gas and Gazprom*, Oxford and New York, Oxford University Press, 2005

partition the market from their contracts.<sup>68</sup> Lately, Austrian energy company, OMV, also had to cancel the clauses from its supply contracts with Gazprom<sup>69</sup>. Similarly the supply contracts of Netherlands's Gasunie and Gazprom has been the subject to investigation, however in this case the Commission did not find evidence of any territorial sales restrictions<sup>70</sup>.

### 4.1.2 Barriers to supply diversification

Gazprom is also suspected of having prevented the diversification of gas supply by denying access to its pipeline network to third-party gas suppliers. Gazprom's conduct is believed to be in breach of the so-called Third Party Access (TPA) regime.<sup>71</sup> In the past, the EC struggled to correct this particular typology of uncompetitive practice. At the end of the 1990s the Commission opened an investigation against five big European companies including Gasunie, GDF, and Germany's BEB, Ruhrgas and Thyssengas - for their refusal to grant a Norway-based subsidiary of Marathon, a US firm, access to their European gas pipelines.<sup>72</sup> Sartori in his work (2013) describes similar events: "in 2005 the Commission launched an *Energy Sector Inquiry*, which was followed by a number of individual antitrust investigations targeting energy incumbents in various member states. Investigations, which formally started in 2007, involved Belgian monopolist Distrigas, Germany's RWE and Italy's ENI, all charged with preventing other suppliers from entering their national gas markets in violation of EU rules. In 2008 it was GDF that came into the spotlight for allegedly barring foreign companies from "downstream supply markets for natural gas in France", while in 2009 Germany's E.ON was charged by the EC of abusing its dominant position by refusing to ensure long-term access to its gas transmission system to other suppliers.

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<sup>&</sup>lt;sup>68</sup> European Commission, (2003). "Commission reaches breakthrough with Gazprom and ENI on territorial restriction clauses" <a href="http://europa.eu/rapid/press-release\_IP-03-1345\_en.htm">http://europa.eu/rapid/press-release\_IP-03-1345\_en.htm</a>

<sup>&</sup>lt;sup>69</sup> European Commission, (2005). "Competition: Commission secures improvements to gas supply contracts between OMV and Gazprom" <a href="http://europa.eu/rapid/press-release\_IP-05-195\_en.htm">http://europa.eu/rapid/press-release\_IP-05-195\_en.htm</a>

<sup>&</sup>lt;sup>71</sup> The refusal to grant access has in the present case also been tackled as a potential abuse or a restrictive concerted practice.

<sup>&</sup>lt;sup>72</sup> European Commission, "Competition: press releases" http://ec.europa.eu/competition/elojade/isef/case\_details.cfm?proc\_code=1\_36246

### 4.1.3 Unfair pricing

Finally, the Commission claims that Gazprom imposes unfair prices on customers by selling its gas through long-term take or pay contracts which link the price of gas to the price of oil. According to Commissioner for Energy Günther Öttinger, "Russian gas in some member states is up to 30 percent cheaper than in other member states"<sup>73</sup> due to such practices. Take or pay contracts are agreements in which the buyer agrees to purchase a specific amount of gas or to pay a fee if part of this gas is not purchased. The price of gas sold through a take or pay contact is generally oil-pegged, reflecting a long-established policy by EU countries aimed at securing long-term natural gas contracts. Under this scheme - adopted not only by Gazprom but also by major producers such as Sonatrach and Norway's Statoil - suppliers are assured of constant demand so that they can plan multiyear investments, while supply guarantees for twenty or thirty years allow the buyers to adopt long-term downstream strategies.74 On the other hand, such practices are now believed to raise gas price for European consumers. Before the proceeding against Gazprom, the EC never examined the take or pay clause and the oil price linkage<sup>75</sup> used by those companies in their supply contracts. Only recently the German Federal Court of Justice had the chance to examine the legality of oil price-based adjustments among all other public authorities. It has been found that such adjustments offer the possibility of an illicit increase in suppliers' profits, since the price of oil is the sole variable used for the price adjustment of the contracted gas. 76 Recently, the Czech Republic's leading gas importer RWE Transgas, won a dispute with Gazprom over gas pricing contracts: an

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<sup>&</sup>lt;sup>73</sup> Reuters, (2012). "EU says Russia must accept its gas market rules" http://www.reuters.com/article/2012/09/14/eu-gas-gazprom-idUSL5E8KE9YZ20120914

<sup>&</sup>lt;sup>74</sup> Sartori N., "The European Commission vs. Gazprom: An Issue of Fair Competitionor a Foreign Policy Quarrel?" (2013)

<sup>&</sup>lt;sup>75</sup> In the past decades oil and natural gas were considered close substitutes for purposes like heating or electricity generation. Today, however, the actual degree of substitutability between the natural gas and oil has substantially decreased, and oil price indexing is believed to be a tool used by suppliers to maintain gas prices high.

<sup>&</sup>lt;sup>76</sup> Talus, K., (2011). "Long-term natural gas contracts and antitrust law in the European Union and the United States" http://jwelb.oxfordjournals.org/lookup/doi/10.1093/jwelb/jwr015

Austrian court ruled that the Czech company does not have to pay for unused gas under the *take or pay* principle.<sup>77</sup>

### 4.2 The reaction of Russia to EC's investigation

A week after the investigation started, Russian President Vladimir Putin signed the executive order "On Measures to Protect Russia Federation Interest in Russian Legal Entities' Foreign Economic Activities". 78 The order states that "open joint stock companies listed as the strategic enterprises and all their subsidiaries should provide information on their activities upon request from the authorities and agencies of foreign countries, international organizations, associations and groups of foreign countries, only subject to prior consent of a respective federal executive body authorized by the Russian Government". Moreover, these companies need approval from government prior to making modifications or variations to contracts concluded with foreign partners, as well as before selling financial assets and property abroad. The federal executive bodies appointed by the government, according to Putin's order, "must refuse to grant consent to these actions to proceed if they could harm Russia's economic interests". That means that strategic companies like Gazprom, need an approval from executive bodies appointed by the Russian government before they can disclose any information to foreign officials, sell assets abroad or modify contracts with their foreign partners. This piece of legislation distinctly requires prior government approval for both direct and indirect acquisition by a foreign investor of "control" over strategic enterprises, included bosom strategic companies.

Putin's executive order, however, could have a very negative effect on the capacity of Russian companies to do business abroad, and not only in Europe. The order could be seen as an acknowledgment that the company has something to hide. In that case, it could motivate the Commission to dig as deeply as possible into Gazprom's activities in Central and Eastern Europe. At the global level, Putin's order can harm Russia's strategic companies (not only Gazprom), which apparently have to operate according to the laws of

<sup>&</sup>lt;sup>77</sup> Russia Today, (2012). "Czech company wins case against Gazprom over 'take or pay'" <a href="http://rt.com/business/czech-rwe-gazprom-dispute-212/">http://rt.com/business/czech-rwe-gazprom-dispute-212/</a>

<sup>&</sup>lt;sup>78</sup> President of Russia, (2012). "Executive order on measures protecting Russian interests in Russian legal entities" foreign economic activities" <a href="http://eng.news.kremlin.ru/news/4401">http://eng.news.kremlin.ru/news/4401</a>

foreign countries. Such a move will obviously complicate the relations of Russian companies with their partners and consequently the relations between Russia and the EU. Thus, it can be assumed that the order will not be applied to all foreign activities of Russian strategic companies. It is more likely that it will be applied selectively in cases like the EC has started or in situations which will be considered sensitive by Russian government. According to Sartori (2013): "Gazprom would reportedly be ready to create two separate entities, possibly registered in Switzerland, of which the first would manage transport and storage operations in Europe and the second would deal with gas trading and marketing activities. Gazprom would maintain ownership of the two subsidiaries, even though they would be legally independent companies operating under strictly autonomous administrative, management and accountability procedures." All these activities are currently managed through Gazprom Germania GmbH, a company entirely controlled by Gazprom's subsidiary Gazprom Export, which in turn manages all Gazprom's assets in EU countries. Such a step will even Gazprom with the Third Energy Package's requirements and will provide some shelter from the competition proceedings initiated by Brussels.

### **Conclusion**

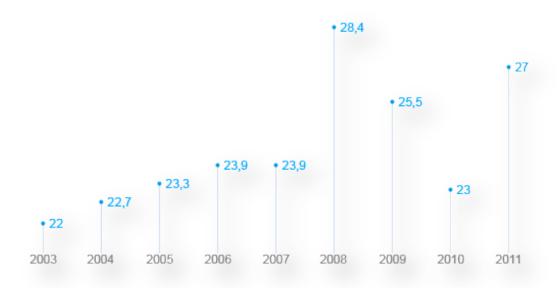
This work was aimed to explore the role of Gazprom in Russian-European economic and political relations. The historical background of the company has shown that Gazprom has always been the object of primary importance. Even though the entire industry in post-soviet Russia was immediately privatized, the gas giant has retained its status. However, Gazprom has lost many of its assets that become the property of post-soviet republics like Ukraine and Turkmenistan. After the president Putin came to power in 2000, there was a change in the company's leadership. Medvedev and Miller superseded old leaders like Chernomyrdin and Vyakhirev. The renewed company has started its European campaign. New projects like Nord Stream were planned at that time and a decade after started to bring gas to European consumers. The motivation was to diversify gas supplies to Europe and to consolidate energy security for both Russia and Europe. Partially, the frequent conflicts with Ukraine concerning gas supplies became the reason for diversification. As a result of such conflicts, most of the Eastern European countries were almost completely left without gas supplies.

Even though projects like Nabucco were considered as the main way for diversification of gas supplies for EU it is eventually North Stream under the Baltic Sea, which supplies Europe with natural gas, while Nabucco project has been postponed to 2018 due to problems with the determination of the supplier for this pipeline<sup>79</sup>. Most likely the project will never be implemented, or will be significantly modified. This is due to the fact that complex political relations between the countries participating in this project make it almost impossible to start. Therefore, we can think that Gazprom is more successful in establishing strong relations with European partners. And perhaps the U.S. is seen as the less attractive partner to Europeans than Russian Gazprom.

"Gazprom" continues to be the largest supplier of gas to the European market. It provides more than a quarter of the total European consumption.

<sup>&</sup>lt;sup>79</sup> ZN,UA (2011). "Gas supplies for Nabucco will begin in 2018" http://zn.ua/ECONOMICS/postavki gaza po nabucco nachnutsya v 2018 godu .html

Graph 1: Share of "Gazprom" in the total gas imports to Western Europe,%



Source: www.gazprom.ru/about/marketing/europe/

Gas consumption in the main export market of "Gazprom" - Europe - in 2011 fell by more than 9%. This was caused by in aggravated difficult economic situation in the European region in 2011. Reason for the decline in gas consumption became weather conditions - warm winters and cold summers in most European countries<sup>80</sup>.

Traditional exporters of gas to the European market in 2011 reduced the volume of supply. Thus, Libya and Algeria reduced their supply. Domestic gas production in the European countries also decreased compared to the 2010 level. Drop in domestic production is due to a reduction in natural reserves and increased competition in the market. Thus, as a result of lower prices on marketplaces for many gas producers to meet their obligations it is more profitable to import gas than to produce it. In the frameworks of the contracts with OAO "Gazprom" in the 2011 European buyers consumed 150 billion cubic meters of natural gas, which is 8.2% higher than in 2010<sup>81</sup>.

81 Gazprom, "Europe/Marketing" <a href="http://www.gazprom.ru/about/marketing/europe/">http://www.gazprom.ru/about/marketing/europe/</a>

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<sup>80</sup> Gazprom, "Europe/Marketing" <a href="http://www.gazprom.ru/about/marketing/europe/">http://www.gazprom.ru/about/marketing/europe/</a>

Table 2: Gas export to European countries, billions m<sup>3</sup>

	2006	2007	2008	2009	2010	2011
Austria	6,6	5,4	5,8	5,4	5,6	5,4
Finland	4,9	4,7	4,8	4,4	4,8	4,2
France	10	10,1	10,4	10	9,8	9,5
Germany	34,4	34,5	37,9	33,5	34	34
Greece	2,7	3,1	2,8	2,1	2,1	2,9
Italy	22,1	22,0	22,4	19,1	13,05	17,1
Switzerland	0,4	0,4	0,3	0,3	0,3	0,3
Netherlands	4,7	5,5	5,3	5,1	4,3	4,4
Turkey	19,9	23,4	23,8	20	18	26
Great Britain	8,7	15,2	7,7	9,7	6,8	8,2
Bosnia and Herzegovina	0,4	0,3	0,3	0,2	0,25	0,3
Bulgaria	2,7	2,8	2,9	2,2	2,6	2,8
Croatia	1,1	1,1	1,2	1,1	1,1	
Czech Republic	7,4	7,2	7,9	7,1	8,6	7,6
Hungary	8,8	7,5	8,9	7,6	6,9	6,3
Macedonia	0,1	0,1	0,1	0,1	0,1	0,1
Poland	7,7	7,0	7,9	9	9,9	10,25
Romania	5,5	4,5	4,2	2,5	2,3	2,8
Serbia	2,1	2,1	2,2	1,7	1,8	1,4
Slovakia	7	6,2	6,2	5,4	5,8	5,9
Slovenia	0,7	0,6	0,6	0,5	0,5	0,5
Denmark						0,5
Total	161,5	168,5	167,6	152,8	138,6	150

Source: www.gazprom.ru/about/marketing/europe/

"Gazprom" nowadays is implementing a set of measures to improve the reliability of gas supplies to European consumers, providing a systematic work on contracting gas transportation capacity, optimization and redistribution of contracted capacities, the implementation of the swap transactions, minimizing the effects of stoppages of gas

pipelines and other emergency situations. As was already mentioned, to improve the security of supply "Gazprom" has initiated the implementation of new transportation projects "Nord Stream" and "South Stream", which will allow not only to diversify Russian gas export routes, including lowering the risk of transit states, but also provide additional opportunities to increase exports of Russian gas. Commercial sales on the first branch of "Nord Stream" began in November 2011. In October 2012, the second branch of the pipeline has been launched, and now in the plans - the construction of the third and fourth threads. Although, Germany has refused to extend gas import from Russia, Great Britain may in the near future join the project<sup>82,83</sup>.

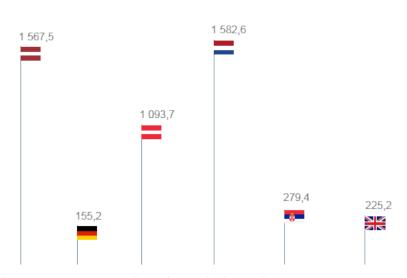


Image 2: Inflows of Gazprom's gas into European UGS in 2011, mill, m<sup>3</sup>

 $Source: \underline{www.gazprom.ru/about/marketing/europe/}$ 

The use of underground gas storage (UGS) in European countries also can significantly improve the reliability of exports and provide an increase in sales of Russian gas. Maintaining the share of the European gas market - one of the main objectives of Gazprom's marketing strategy. On 20th of March 2013 in Prague, Deputy Chairman of the Management Board of "Gazprom" Alexander Medvedev and Chairman of the Board of Directors of the MND Group Karel Komarek signed an agreement to build a new UGS in

<sup>&</sup>lt;sup>77</sup> Lenta.ru (2011) "Angela Merkel refuses to expand Nord Stream" <a href="http://lenta.ru/news/2011/07/19/pipeline/">http://lenta.ru/news/2011/07/19/pipeline/</a>

<sup>83</sup> Lenta.ru (2012) "Gazprom will build Nord Stream to Great Britain" http://lenta.ru/news/2012/06/29/touk/

Damborice, South Moravia<sup>84</sup>. The most important instruments of preserving and increasing the volume of exports is the extension of long-term contracts, as well as an increase in the volume of gas delivered under the "take or pay" scheme.

Nevertheless, patterns like "take or pay" scheme have become a subject to the official proceedings initiated by European Commission's antitrust body. The so-called *antitrust clash of the decade* between the European Commission and Russian energy giant is supposed to exert the prospective relations between two sides deeply. If the Kremlin allows Commission's authority to take control over Gazprom's activities in Europe, the current model of gas supplies that characterizes the European gas market would drastically change. However, there is another side in this situation. The political dialogue between Moscow and European countries aimed to strengthen the ties between two parties may lead to the improvement of confidence in these relations. For Gazprom it could be an advantage considering the evolution of non-traditional ways of gas exploration and transportation such as liquefied natural gas and exploration of shale gas. The effects of such technologies on the future of Gazprom are hard to predict, therefore to limit the effects, the Kremlin could consider harmonizing Gazprom's strategic concerns with the Commission's requests as the best way.

On the contrary, Moscow may decide to refuse to reach a settlement with the EC and ignore the EC's sentences. And considering the steps already taken by the Kremlin it is more likely scenario. Moscow may ask for help its closest European partners and try to lobby in Brussels for the suspension of proceedings, but that may lead to even worse situation. The conflict can speed up the transformation process in the European gas market along various models, probably inverted to greater reliance on LNG and on a more diversified set of suppliers. However, there is no confidence that such adjustments, which would cost more time and money, would obtain the level of stability that the EU thinks is essential for securing its energy supplies. Russia in order to diversity and reduce risks for itself may think of supplying natural gas to Asian markets more extensively. Alternative sources of gas such as shale gas, which is gaining momentum in the U.S. could be a threat,

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<sup>84</sup> Gazprom (2013) "Gazprom and MND group started to build new UGS in Czech Republic" <a href="http://www.gazprom.ru/press/news/2013/march/article158387/">http://www.gazprom.ru/press/news/2013/march/article158387/</a>

but it is unlikely that being the biggest country in the world Russia does not have such resources.

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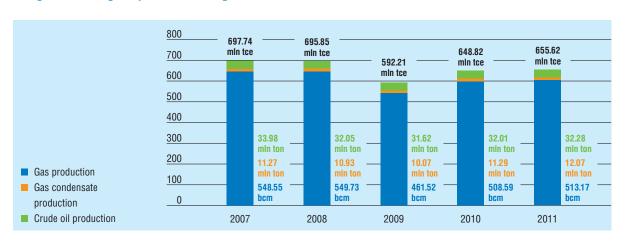
### **Appendix**

# GAZPROM IN RUSSIAN AND GLOBAL ENERGY INDUSTRY

		As of and for	r the year ended D	ecember 31,	
_	2007	2008	2009	2010	2011
Share in the world natural gas industry					
Gas reserves*	16.5 %	18.0 %	18.0 %	17.6 %	18.3 %
Gas production*	17.4 %	16.7 %	14.5 %	14.8 %	14.5 %
Gas sales*	27.0 %	25.4 %	22.1 %	20.1 %	21.0 %
Share in the Russian fuel and energy complex					
Russian natural gas reserves controlled	62.1 %	68.9 %	69.8 %	68.7 %	71.8 %
Gas production**	83.9 %	82.7 %	79.2 %	78.1 %	76.5 %
Crude oil and gas condensate production**	9.2 %	8.8 %	8.4 %	8.6 %	8.7 %
Processing of natural and associated petroleum gas (APG)**	70.2 %	59.1 %	47.6 %	49.9 %	48.6 %
Primary processing of oil and stable gas condensate**	14.1 %	14.5 %	15.5 %	16.5 %	17.2 %
Power generation**	3.1 %	10.5 %	13.9 %	16.9 %	16.9 %
Total length of trunk pipelines and pipeline branches , housand km	158.2	159.5	160.4	161.7	164.7

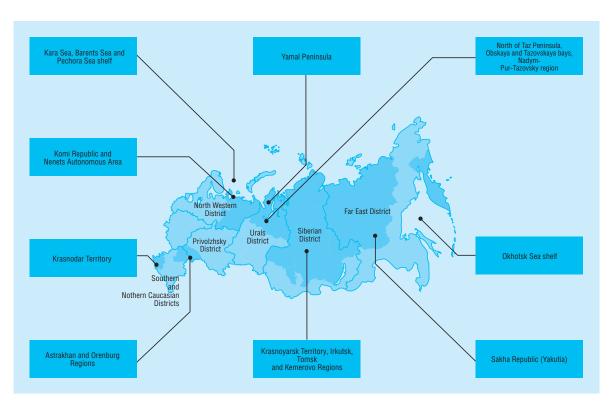
<sup>\*</sup> Based on International Natural Gas Center "CEDIGAZ" and *Gazprom* figures. Statistics on international production and trade are adjusted to Russian standard terms and conditions using 1.07 ratio.

### Gazprom Group's hydrocarbons production in Russia



<sup>\*\*</sup> Based on Federal State Statistics Service, CDU TEC and Gazprom figures.

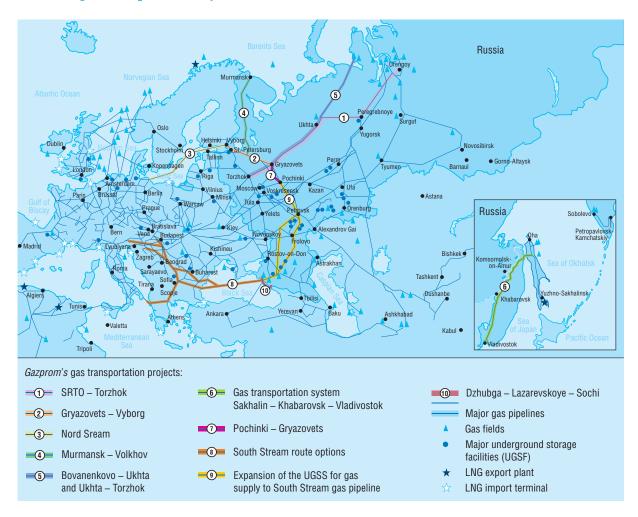
## Areas of geologic exploration works carried out in Russia



### Gas transportation system reconstruction and development in Russia

	For the year ended December 31,				
	2007	2008	2009	2010	2011
Gas trunk pipelines and pipeline branches putting into operation, km	1,157	1,381	865	1,339	2,470
Capital repairs, km	2,697.0	2,756.3	2,383.7	2,427.4	2,436.6
The number of technical faults per 1,000 km	0.11	0.13	0.09	0.04	0.07

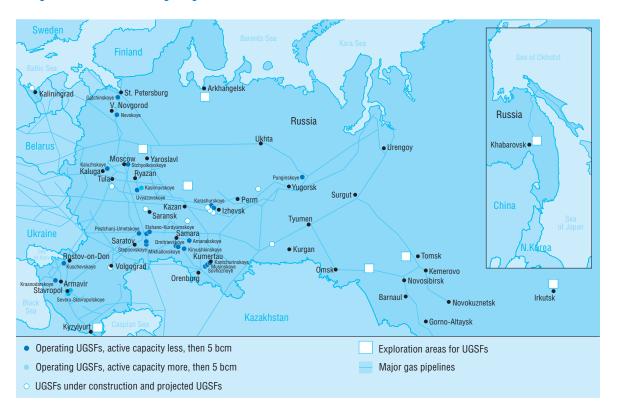
### **Eurasian gas transportation system**



### Average OAO Gazprom's gas transportation distance

	For the year ended December 31,				
	2007	2008	2009	2010	2011
For gas supplied to Russian consumers, km	2,808	2,901	2,504	2,592	2,785
For gas export (transportation to the border of Russia), km	3,252	3,322	3,292	3,262	3,430

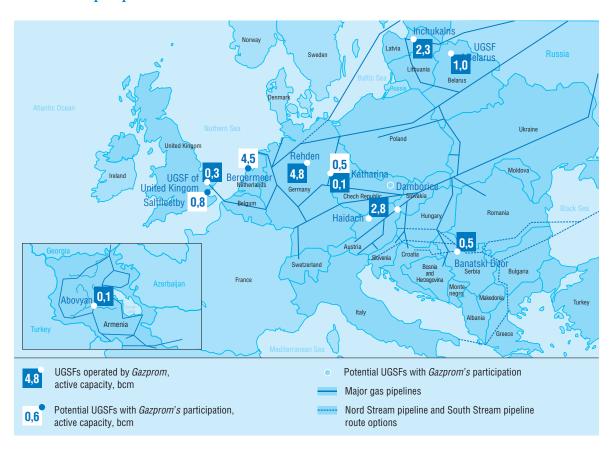
### Gazprom's current and prospective UGSFs in Russia



### Features of Gazprom's UGSFs located in Russia

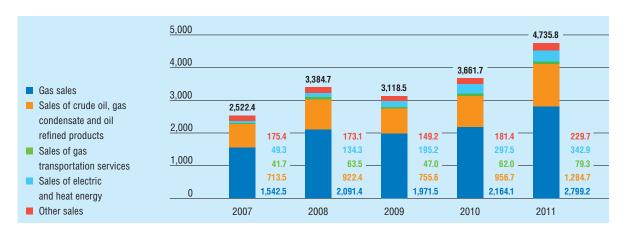
	As of December 31,				
	2007	2008	2009	2010	2011
Number of UGSFs, units	25	25	25	25	25
Total active capacity, bcm	64.94	65.20	65.20	65.41	66.70
Number of producing wells at UGSFs, units	2,618	2,615	2,601	2,564	2,602

### **Current and prospective UGSFs abroad**



### Sales structure of Gazprom Group, billion RR

(net of VAT, excise tax, and customs duties)



### Sales of natural gas

(net of VAT, excise tax, and customs duties)

	For the year ended December 31,				
	2007	2008	2009	2010	2011
			million RR		
Russia	399,452	474,268	494,931	614,702	722,978
Far abroad *	873,410	1,260,645	1,105,453	1,099,225	1,439,069
FSU countries	269,645	356,514	371,152	450,137	637,178
Total	1,542,507	2,091,427	1,971,536	2,164,064	2,799,225
			million US \$ **		
Russia	15,622	19,116	15,623	20,247	24,633
Far abroad *	34,158	50,812	34,894	36,206	49,031
FSU countries	10,545	14,370	11,716	14,827	21,710
Total	60,325	84,298	62,233	71,280	95,374
			million euro**		
Russia	11,410	13,026	11,215	15,265	17,690
Far abroad *	24,947	34,623	25,050	27,296	35,211
FSU countries	7,702	9,792	8,411	11,178	15,590
Total	44,059	57,441	44,676	53,739	68,491

Average natural gas price (net of VAT, excise tax, and customs duties)

		For the year ended December 31,				
	2007	2008	2009	2010	2011	
Russia						
RR per mcm	1,301.1	1,652.8	1,885.0	2,345.5	2,725.4	
US \$* per mcm	50.9	66.6	59.5	77.3	92.9	
Euro* per mcm	37.2	45.4	42.7	58.2	66.7	
Far abroad						
RR per mcm	5,181.9	7,521.5	7,452.1	7,420.7	9,186.6	
US \$* per mcm	202.7	303.2	235.2	244.4	313.0	
Euro* per mcm	148.0	206.6	168.9	184.3	224.8	
FSU countries						
RR per mcm	2,672.9	3,693.9	5,483.7	6,416.5	7,802.1	
US \$* per mcm	104.5	148.9	173.1	211.3	265.8	
Euro* per mcm	76.3	101.5	124.3	159.3	190.9	

<sup>\*</sup> Data are not derived from financial statements. Calculated, based on the average exchange rate for respective period.

<sup>\*</sup> Since 2008, gas sales are provided net of trading operations without actual delivery of Gazprom Germania Group.

\*\* Data are not derived from financial statements. Calculated, based on the average exchange rate for respective period.

### Volumes of Gazprom Group's gas sales volumes

		For the	year ended De	cember 31,	
	2007	2008	2009	2010	2011
			bcm		
Russia	307.0	287.0	262.6	262.1	265.3
Far abroad					
Austria	5.4	5.8	5.4	5.6	5.4
Belgium	4.3	3.4	0.5	0.5	-
Bosnia and Herzegovina	0.3	0.3	0.2	0.2	0.3
Bulgaria	2.8	2.9	2.2	2.3	2.5
Croatia	1.1	1.2	1.1	1.1	-
Czech Republic	7.2	7.9	7.0	9.0	8.2
Finland	4.7	4.8	4.4	4.8	4.2
France	10.1	10.4	8.3	8.9	8.5
Germany	34.5	37.9	33.5	35.3	34.1
Greece	3.1	2.8	2.1	2.1	2.9
Hungary	7.5	8.9	7.6	6.9	6.3
Italy	22.0	22.4	19.1	13.1	17.1
Macedonia	0.1	0.1	0.1	0.1	0.1
Poland	7.0	7.9	9.0	11.8	10.3
Romania	4.5	4.2	2.5	2.6	3.2
Serbia	2.1	2.2	1.7	2.1	2.1
Slovakia	6.2	6.2	5.4	5.8	5.9
Slovenia	0.6	0.6	0.5	0.5	0.5
Switzerland	0.4	0.3	0.3	0.3	0.3
The Netherlands	5.5	5.3	4.3	4.3	4.5
Turkey	23.4	23.8	20.0	18.0	26.0
United Kingdom	15.2	7.7	11.9	10.7	12.9
Other countries	0.5	0.6	1.2	2.1	1.3
Total to far abroad	168.5	167.6	148.3	148.1	156.6
FSU countries					
Armenia	1.9	2.1	1.7	1.4	1.6
Belarus	20.6	21.1	17.6	21.6	23.3
Estonia	0.9	0.6	0.8	0.4	0.7
Georgia	1.2	0.7	0.1	0.2	0.2
Kazakhstan	10.0	9.6	3.1	3.4	3.3
Latvia	1.0	0.7	1.1	0.7	1.2
Lithuania	3.4	2.8	2.5	2.8	3.2
Moldova	2.7	2.7	3.0	3.2	3.1
Ukraine	59.2	56.2	37.8	36.5	44.8
Uzbekistan	_	-	_	_	0.3
Total to FSU countries	100.9	96.5	67.7	70.2	81.7
Total	576.4	551.1	478.6	480.4	503.6

Sale of hydrocarbons and refined products – Volumes of natural gas, oil, gas condensate, and refined products sold to consumers in the considered market with no account taken of the intercompany sales. All the volumes of hydrocarbons and refined products sold by *Gazprom Group* are taken into account: those produced by the company itself and those purchased from third companies.

### Gazprom Group's average number of employees

		For the year ended December 31,			
	2007	2008	2009	2010	2011
Average number of employees, thousands	436.1	456.2	383.4	389.7	400.3

### Imports of gas from Russia: absolute values and % of total consumptions

Country	Imports from Russia (bcm)	Share of total national consumption (%)
Austria	6.10	65.7
Belgium	0.29	1.5
Bulgaria	2.77	85.5
Czech Republic	8.86	100.0
Estonia	0.62	100.0
Finland	4.04	100.0
France	6.13	14.5
Germany	30.49	40.0
Greece	2.65	58.2
Hungary	5.11	45.8
Italy	19.18	25.0
Latvia	1.70	100.0
Lithuania	3.42	100.0
Luxembourg	0.28	22.7
Netherlands	1.98	4.8
Poland	9.87	64.0
Romania	2.98	21.8
Slovakia	5.79	100.0
Slovenia	0.42	47.7

Source: ENI, World Oil & Gas Review 2012, cit., p. 66, 85-87.